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About Sandburg

Illinois Community College District No. 518
www.sandburg.edu

Main Campus
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone 309.344.2518
877.236.1862
Fax 309.344.3526

Branch Campus
305 Sandburg Dr. Carthage, IL 62321
Phone 217.357.3129
Fax 217.357.3512

The Extension Center
80 East Main St.
Bushnell, IL 61422
Phone 309.772.2177
Fax 309.772.2958

Approved by ... 

Accredited by ...
North Central Association of Colleges and Schools Commission on Institutions of Higher Education
Phone 312.263.0456
http://www.ncahlc.org/

Membership and Recognition

Student Responsibility
All students are expected to familiarize themselves with the provisions of this Catalog. Enrollment at Carl Sandburg College implies an understanding and acceptance by the student of an obligation to abide by the academic, administrative and social regulations of the College. Failure to read and comply with college regulations does not exempt a student from such responsibility. Keep this catalog as a reference for graduation requirements in Associate Degree Programs and Certificates.

Any student who wishes to examine the policies of the College should see the Vice President of Student Services.

Student Equal Opportunity Regulation
It is the regulation of Carl Sandburg College that a student's race, color, religion, sex, national origin, ancestry, age, disability, citizenship, marital status, veteran status, sexual orientation or status in any group protected by applicable federal, state or local law (unless a part of a College affirmative action initiative) shall not be a basis for determining:

1. Whether the student will be admitted to the College;
2. The educational performance required or expected of the student;
3. The attendance or assignment requirements applicable to the student;
4. To what courses, fields of study or programs, including honor and graduate program, the student will be admitted;
5. What placement of course proficiency requirements are applicable to the student;
6. The quality of instruction the student will receive;
7. What tuition or fee requirements are applicable to the student;
8. What scholarship opportunities are available to the student;
9. What extracurricular teams the student will be a member of or in what extracurricular competitions the student will participate;
10. Any grade the student will receive in any examination or in any course or program of instruction in which the student is enrolled;
11. The progress of the student toward successful completion of or graduation from any course or program of instruction in which the student is enrolled; or
12. What degree, if any, the student will receive. Questions or concerns should be addressed to the Dean of Student Support Services during regular business hours.

The College reserves the right to change, without notice, any information in this catalog.

This catalog is for information purposes and does not constitute a contract.
President's Message

Here at Carl Sandburg College, we take great pride in having something to offer for virtually everyone. Whether you want to enroll in one of our more than 40 career programs, work toward your associate degree to transfer to a four-year university or take a few classes for your own personal pleasure, we’re certain you’ll find something for you in the contents of this academic catalog.

We’re also pleased to provide this searchable and interactive catalog solely online for the second straight year. It’s just one of the many ways Sandburg is “going green” while also providing our students a simple way to find the classes that are the best fit for them.

The 2013-2014 academic year once again provided a variety of highlights here at Carl Sandburg College. We introduced several new programs for our students, including e-business, biofuels manufacturing technology and diesel power technology. In conjunction with the City of Galesburg, we also introduced a new scholarship program, Galesburg Promise, which affords Galesburg High School graduates the opportunity to earn a certificate or degree from Sandburg.

Our science labs received a $500,000 renovation, giving us state-of-the-art facilities as we continue to strive toward putting our students in the best possible environment for them to learn. Our instructors continue to be among the very best in their respective field. Jill Johnson, associate dean of social and business sciences, received the 2013 John and Suanne Roueche Excellence Award from the League for Innovation in the Community College. Lara Roemer, who teaches history and political science in addition to serving as the College’s Phi Theta Kappa Honor Society advisor, was one of 26 instructors nationwide to be named a 2014 PTK Faculty Scholar.

Our athletics programs had one of their finest seasons ever! The men’s basketball team won the Region IV championship to qualify for the NJCAA national tournament for the first time in school history, and their success had the entire College buzzing with excitement and school spirit! Our men’s golf team also qualified for the national tournament, doing so for the fourth time in five years. The Chargers men’s soccer team had its best season ever, winning a school-record 15 games, and sophomore women’s cross country runner Haley Bolliger capped her record-setting career by finishing as an All-American at the national meet!

Not only did the Chargers have great performances on the field, but our student-athletes had a great year in the classroom as well. Forty-nine Chargers were named to the dean’s list for the fall semester for having at least a 3.0 grade point average.

We hope you’ll find your start here at Carl Sandburg College, and we’ll make every effort to help you finish whatever your dreams may be.

Dr. Lori L. Sundberg, President
Carl Sandburg College
Board of Trustees

Chairperson Gayla J. Pacheco, Galesburg
Vice Chairperson William C. Robinson, Galesburg
Secretary Jon A. Sibley, Sr., Galesburg
Bruce A. Lauerman, Galesburg
Lee E. Johnson, Galesburg
Thomas H. Colclasure, Galesburg
Sandra Wood, Galesburg
Tanner Nygard, student trustee
Tammy Folger, staff representative
Julie L. Van Fleet, secretary to the Board of Trustees
Lisa Blake, board treasurer
Doug Mustain, attorney
History

Carl Sandburg College is named for Pulitzer Prize-winning poet and Lincoln biographer Carl Sandburg, who was born and raised in Galesburg. The son of Swedish immigrant parents, Sandburg was born on January 6, 1878, in a small cottage near the rail yards where his father worked. The cottage, on Galesburg's south side, is preserved today as an Illinois historical site.

Sandburg published numerous volumes, including Chicago Poems; Cornhuskers; Rootabaga Stories; The People, Yes; Abraham Lincoln: The Prairie Years and The War Years, and Always the Young Strangers. He received two Pulitzer Prizes — in history for his Abraham Lincoln: The War Years (1939) and in poetry for his Collected Poems (1951). The central theme throughout Sandburg's works is his belief in the essential goodness and drive of the common man and woman. His writing is full of optimism for the future of the human race.

Carl Sandburg and his mentor, Professor Philip Green Wright of Lombard College, also located in Galesburg, envisioned the establishment of "a People's Industrial College, where people of all ages would be taught, in addition to literature, philosophy, sociology, science, music, and art, something about industry and farming, such as agriculture, horticulture, bee culture, cabinet-making, metalworking, pottery, architecture, printing and publishing, and bookbinding." (From Margaret Sandburg's unpublished manuscript Biography of Carl Sandburg.) The two men felt that this "People's College" should be located by a river or on a lake.

Though Sandburg died in 1967, the College's ties with its namesake remain strong. In 1979, Helga Sandburg, Carl's youngest daughter, was awarded the College's first honorary associate degree. She returned to the campus in 1987, 1994, and in 2006 as the commencement speaker at graduation exercises. Additionally, Helga was a guest of honor at the annual community celebration, Sandburg Days Festival, from its inception in 1996 to 2005.

The referendum creating what is now Carl Sandburg College was passed by the voters of Knox and Warren counties in September 1966. The first classes were held on Sept. 24, 1967, in a variety of facilities in downtown Galesburg, Ill. Since then the College has expanded considerably both in the scope of course offerings and in territory in an effort to meet the educational needs of the residents of West Central Illinois.

In 1969, the College occupied the site on South Lake Storey Road in Galesburg on which the permanent Main Campus would be constructed. The permanent facilities were opened in 1976. In the meantime, the College annexed 16 additional high school districts in 1974 which eventually resulted in the establishment of additional facilities to insure the delivery of services for all residents of what is officially Illinois Community College District 518.

What is now The Branch Campus in Carthage, Ill., offered its first classes in the winter of 1974. The Extension Center in Bushnell, Ill., offered its first classes in 1995. The Main Campus has also undergone major recent renovations to keep Carl Sandburg College on the cutting edge of the technological revolution.

The College continues to serve its 3,000-square-mile district and fulfill its mission and vision and remain true to its core values for excellence, collaboration, integrity and respect.
# Academic Calendar

Academic calendar dates may change. Please check online at www.sandburg.edu.

## Fall Semester 2014-2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Begins</td>
<td>Monday, April 7</td>
</tr>
<tr>
<td>Fall Tuition Due</td>
<td>Friday, August 1</td>
</tr>
<tr>
<td>Registration Ends</td>
<td>Sunday, August 17 (midnight online)</td>
</tr>
<tr>
<td>CLASSES BEGIN</td>
<td>Monday, August 18</td>
</tr>
<tr>
<td>LABOR DAY — NO CLASSES — OFFICES CLOSED</td>
<td>Monday, September 1</td>
</tr>
<tr>
<td>Midterm for Fall</td>
<td>Thursday, October 9</td>
</tr>
<tr>
<td>FALL BREAK — NO CLASSES</td>
<td>Friday, October 10</td>
</tr>
<tr>
<td>THANKSGIVING VACATION — NO CLASSES — OFFICES CLOSED</td>
<td>Thursday-Friday, November 27-28</td>
</tr>
<tr>
<td>Last Day to Withdraw</td>
<td>Tuesday, November 18</td>
</tr>
<tr>
<td>EMERGENCY DAY/NO CLASSES UNLESS NECESSARY</td>
<td>Friday, December 5</td>
</tr>
<tr>
<td>FINAL EXAMS</td>
<td>Monday-Thursday, December 8, 9, 10, 11</td>
</tr>
<tr>
<td>Offices Closed</td>
<td>Wednesday, December 24-26, Thursday, January 1</td>
</tr>
</tbody>
</table>

## Spring Semester 2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Begins</td>
<td>Monday, November 3</td>
</tr>
<tr>
<td>Spring Tuition Due</td>
<td>Monday, December 15</td>
</tr>
<tr>
<td>Registration Ends</td>
<td>Sunday, January 11 (midnight online)</td>
</tr>
<tr>
<td>CLASSES BEGIN</td>
<td>Monday, January 12</td>
</tr>
<tr>
<td>MARTIN LUTHER KING JR.’S BIRTHDAY — NO CLASSES — OFFICES CLOSED</td>
<td>Monday, January 19</td>
</tr>
<tr>
<td>Midterm for Spring</td>
<td>Thursday, March 5</td>
</tr>
<tr>
<td>SPRING BREAK — NO CLASSES</td>
<td>Friday-Friday, March 6-15</td>
</tr>
<tr>
<td>NO CLASSES — OFFICES CLOSED</td>
<td>Friday, April 3</td>
</tr>
<tr>
<td>Registration for Fall Begins</td>
<td>Monday, April 6</td>
</tr>
<tr>
<td>Last Day to Withdraw</td>
<td>Tuesday, April 21</td>
</tr>
<tr>
<td>EMERGENCY DAY/NO CLASSES UNLESS NECESSARY</td>
<td>Thursday, May 7</td>
</tr>
<tr>
<td>FINAL EXAMS</td>
<td>Friday, Monday, Tuesday, Wednesday, May 8, 11, 12, 13</td>
</tr>
<tr>
<td>GRADUATION</td>
<td>Thursday, May 14</td>
</tr>
</tbody>
</table>

## 3 Week Summer Session 2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Begins</td>
<td>Monday, November 3</td>
</tr>
<tr>
<td>Pre-Summer Tuition Due</td>
<td>Monday, May 4</td>
</tr>
<tr>
<td>Registration Ends</td>
<td>Sunday, May 17 (midnight online)</td>
</tr>
</tbody>
</table>

## 8 Week Summer Session 2015

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Begins</td>
<td>Monday, November 3</td>
</tr>
<tr>
<td>Summer Tuition Due</td>
<td>Monday, May 4</td>
</tr>
<tr>
<td>Registration Ends</td>
<td>Sunday, June 7 (midnight online)</td>
</tr>
<tr>
<td>CLASSES BEGIN</td>
<td>Monday, June 8</td>
</tr>
<tr>
<td>Midterm for 8 Week Summer Session</td>
<td>Thursday, July 2</td>
</tr>
<tr>
<td>JULY 4 BREAK — NO CLASSES — OFFICES CLOSED</td>
<td>Friday, July 3-observed</td>
</tr>
<tr>
<td>Last Day to Withdraw</td>
<td>Wednesday, July 22</td>
</tr>
<tr>
<td>Summer Session Ends</td>
<td>Friday, August 1</td>
</tr>
</tbody>
</table>

## 11 Week Summer Session

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Begins</td>
<td>Monday, November 3, 2014</td>
</tr>
<tr>
<td>Registration Ends</td>
<td>Sunday, May 17 (midnight online)</td>
</tr>
<tr>
<td>Classes Begin</td>
<td>Monday, May 18</td>
</tr>
<tr>
<td>Midterm for 11 Week Summer Session</td>
<td>Wednesday, June 24</td>
</tr>
<tr>
<td>July 4-No Classes/Offices Closed</td>
<td>Friday, July 3-observed</td>
</tr>
<tr>
<td>Last Day to Withdraw from 11 Week Session</td>
<td>Wednesday, July 22</td>
</tr>
<tr>
<td>Summer 11 Week Session Ends</td>
<td>Friday, July 31</td>
</tr>
<tr>
<td>Grades Due to Admissions by 3 p.m.</td>
<td>Monday, August 3</td>
</tr>
</tbody>
</table>

## Memo

- CLASSES BEGIN: Monday, May 18
- MEMORIAL DAY — NO CLASSES — OFFICES CLOSED: Monday, May 25
- Midterm for Summer 3 Week Session: Wednesday, May 27
- Last Day to Withdraw: Wednesday, June 3
- Pre-Summer Session Ends: Friday, June 5
Mission and Statements

Mission Statement
The mission of Carl Sandburg College is to provide students an opportunity to succeed by providing accessible, quality education in a caring environment, by keeping the learner's needs at the center of decision making and by working in partnership with communities of the College district.

Vision Statement
Where dreams come to life, and lives come to change.

Core Values
• Excellence
• Collaboration
• Integrity
• Respect

Diversity Statement
Carl Sandburg College is a community of lifelong learners that welcomes, values, and respects diversity. The College fosters a climate of mutual respect that celebrates diversity by embracing our similarities as well as our differences. We demonstrate this commitment by serving students, faculty, staff and community members with fairness and equality.
Priorities & Purposes

Priorities & Goals

1. Student Access and Success
   a. Create, market, and implement educational programs to meet the needs of our district.
   b. Create opportunities for students of all backgrounds to have access to higher education.
   c. Prepare students for their educational goals.
   d. Create and provide curricula and student services to ensure graduation.
   e. Create opportunities for lifelong learning.

2. Teaching and Learning
   a. Monitor, assess, and make changes to promote student learning.
   b. Monitor, assess, and make changes to maximize student retention and learning.
   c. Monitor and evaluate student outcomes.
   d. Reaffirm a commitment to an environment that recognizes the need for diversity.
   e. Create opportunities for all within the College community to interact with understanding, appreciation, and respect for others.

3. Community Alliances
   a. Expand partnerships with four-year colleges and universities.
   b. Continue to work with K-12 school districts.
   c. Develop programs in cooperation with neighboring institutions.
   d. Maintain and expand alliances within and beyond the College district.
   e. Support economic development activities.

4. Operational Sustainability and Excellence
   a. Develop Enrollment Management plan to stabilize and guide the institution's enrollment.
   b. Establish and maintain effective technology in academic programs and support functions.
   c. Upgrade employee skills in use of technology.
   d. Continue to lead the way in technology.
   e. Establish/maintain an operating fund balance equal to 20 percent of the previous year's adopted budget.
   f. Maintain a competitive compensation program to enable the College to attract and retain a quality workforce.
   g. Monitor, evaluate, and respond to needs of the physical environment.
   h. Commit to all feasible sustainability efforts.

Educational Purposes

In its efforts to be a premiere learning and teaching institution, Carl Sandburg College is dedicated to fulfilling the following major functions:

1. Provide associate degree-level education consisting of liberal arts, sciences, and pre-professional fields designed to prepare students for transfer to baccalaureate-granting institutions;
2. Provide business, technical, and professional education that offers associate degrees, certificates, courses, workshops, and seminars designed for career, entry-level employment, retraining, and/or upgrading of skills to meet current and emerging employment needs and trends;
3. Provide courses and programs designed to assist academically underprepared students to be successful in their next level of education;
4. Provide activities designed to meet the lifelong educational needs and interests of individuals throughout the district;
5. Provide services designed to meet the needs of the student population including recruitment, admissions, registration, assessment, counseling, tutoring, career planning, academic advisement, financial aid, job placement, co-curricular activities, and inter-collegiate athletics;
6. Provide programs and services designed to meet the customized continuing education and technical assistance needs of individuals, businesses, industries, and community organizations;
7. Serve as a center for cultural and intellectual development.
General Education Outcomes

1. Communication: Demonstrate proficiency in speaking, writing, reading and listening.
2. Critical Thinking: Demonstrate critical thinking skills and problem solving skills.
3. Cultural Diversity: Demonstrate an awareness of human values and diverse cultures.
4. Information Technology: Demonstrate understanding and skills to function in a technological society.
5. Quantitative Skills: Demonstrate use of quantitative analytical skills and processes to interpret, evaluate and solve problems.
Admission & Registration

Admissions Policy

Admission is open to all in-district residents of Community College District 518 who are high school graduates or the equivalent (GED), or non-residents who are at least 18 years of age. Admission to the College does not ensure admission to a particular course or program of study.

Admission is also open to people in the following categories:

1. Out-of-district, out-of-state, and foreign country residents.
2. Students whose connection with a secondary school is severed. Any student who is 16 or 17 years of age and has severed connection with a secondary school, as certified in writing by the chief executive officer of the secondary school in which the student has legal residence, is eligible to attend Carl Sandburg College.
3. Students currently enrolled in a secondary school program. Students currently enrolled in a secondary school program may be accepted into college course(s). If such courses are offered during the regular school day established by the secondary school or are offered for secondary school credit, prior approval of the chief executive officer of the secondary school must be received.
4. Admission of students in programs for special groups.

Should it be necessary to limit enrollment, priority will be given to residents of Carl Sandburg College District 518 or to residents of a community college district involved in a cooperative agreement with Carl Sandburg College. The College reserves the right to establish selective admission requirements for any or all programs. All programs and their respective admission requirements will be identified in the College catalog.

Carl Sandburg College will not discriminate in the admission of students on the basis of race, color, creed, sex, sexual preference, disability, or national origin.

International Admissions

International students are welcome at Carl Sandburg College. The College is authorized under federal law to enroll nonimmigrant students. Prospective foreign students should contact the director of admissions and records (309.341.5234) to discuss their eligibility for admission.

Each student is encouraged to consult with a professional counselor at Carl Sandburg College in the selection of a program consistent with the student's interests and abilities.

Online/Blended Courses

Online courses offer the same high quality instruction as their equivalent on-campus counterparts. These instructor-led courses are delivered through the Internet. By using the Internet students are able to link to faculty and other students in the class.

With Sandburg Online, learning can be accessible and flexible. If students have a busy schedule, they are able to "attend" class at times that best fit their schedule.

While the courses begin and end on specific dates and the course work has assigned deadlines, you can work at your own pace within the deadlines. For more information, please call 309.341.5487 (Admissions) or check our Web site at www.sandburg.edu/academics/online-learning

Blended learning combines both traditional (face-to-face) classrooms with online coursework. This type of class can be structured a variety of ways, but typically it meets in the classroom once a week, and then the student completes the rest of the week's activities online. This provides a more flexible schedule, but keeps the personal touch of face-to-face meeting time. Because of the added online coursework, students can finish the same hours and the same course rigors with half the time or less being spent in the classroom.

Community College Alliance with Franklin University

The Community College Alliance (CCA) is a unique educational agreement between Carl Sandburg College and Franklin University of Columbus, Ohio. This agreement allows Carl Sandburg College graduates to complete a bachelor's degree without leaving the Sandburg campus. After earning an associate degree or completing at least 60 transferable semester hours credit, students can earn a bachelor's degree through a combination of on-campus and online classes at Sandburg and online classes through Franklin University. There are 13+ majors in an online format that fit the students' career and lifestyle needs without the barriers of time and location. Beyond the bachelor's degree, students may also pursue the Vantage MBA in a completely online format in as few as 17 months. For detailed information, please contact the Admissions Office.

BOT/BA Degree Program with Western Illinois University

Carl Sandburg College signed a partnership agreement with Western Illinois University (WIU) to facilitate the transfer of students who have earned or are pursuing an associate degree at Sandburg and who wish to enroll in the WIU Board of Trustees BA degree program. This flexible program enables the mature place-bound student to earn a bachelor's degree with as few as 40 semester hours taken through WIU in an online format or on campus. Once a student is accepted into the BOT/BA program, the tuition and fees rate is frozen for four years (if the student maintains continuous enrollment). Although a major may not be earned, a minor may be achieved by completing the exact academic requirements listed in the WIU Undergraduate Catalog. For detailed information, please contact the Admissions Office.

Dual Credit Opportunities for High School Students

Carl Sandburg College works cooperatively with the various high schools within the Sandburg district that wish to provide college-level courses for their students during the junior and senior years. Dual credit allows eligible students to receive both high school and college credit for successfully completing college-level courses. These college courses may be offered at the high school location or the student may attend at one of the Carl Sandburg College campuses. Students must have the permission of the high school and obtain sufficient scores on a placement test to enroll in college courses. For detailed information, please contact the Admissions Office.

Illinois Articulation Initiative (IAI)

Carl Sandburg College is a participant in the Illinois Articulation Initiative. The General Education Core Curriculum was incorporated into the Associate in Arts and Associate in Science degrees effective Summer
1998. Since completion of the Associate in Fine Arts (A.F.A.) degrees does not complete the Illinois Transferable General Education Core Curriculum (IAR GECC), students will need to complete the general education requirements of the school to which they transfer. For further information about IAR, go to the Web site at www.itransfer.org (http://www.itransfer.org).

Dual Admissions with Saint Ambrose University

Carl Sandburg College has entered into a dual admissions agreement, which permits students who intend to transfer to Saint Ambrose upon completion of their Associate Degree access to facilities, student events and other resources while attending Sandburg. Students must apply at both institutions upon entry into college and must work with an advisor from both institutions at the beginning of each semester.

Monmouth College Pipeline Program

Carl Sandburg College has partnered with Monmouth College to create a program for students who desire to obtain a Bachelor's degree at Monmouth but earn their Associate's degree at Carl Sandburg prior to transferring. The program allows for students to meet with advisors from both institutions each semester and allows students access to various events and facilities on the Monmouth College campus. Inquiries can be directed to the Welcome Center, at 309.345-3500 or welcomecenter@sandburg.edu.

Transfer Agreement with University of Illinois at Urbana-Champaign (ACES)

Carl Sandburg College and the College of Agricultural, Consumer and Environmental Sciences (ACES) if the University of Illinois at Urbana-Champaign (UIUC) have a cooperative agreement to help facilitate transfer students who wish to pursue a degree in one of the Agricultural Science programs at UIUC. Sandburg students who pursue the Associate in Science degree, with an emphasis in Agriculture, will be required to complete 12 semester hours of online work from UIUC and travel to their campus a couple of times per semester as part of their class requirements.

Health Career Program Admissions

Admission to many of Carl Sandburg College's Health Career programs (Associate Degree Nursing, Practical Nursing, Radiologic Technology, Computed Tomography, Magnetic Resonance Imaging, Diagnostic Cardiac Sonography, Diagnostic Medical Sonography, Dental Hygiene, Nuclear Medicine Technology, Mortuary Science and Medical Assisting) is limited and, therefore, competitive. Selection is based on candidates' overall academic performance. Admission to the Cosmetology program is also limited and competitive. The most qualified applicants who are residents of the Carl Sandburg College District or of community college districts involved in a cooperative agreement with Carl Sandburg College will be given preference for admission to these programs.

Admission to AA/AS/AFA Programs

(Transfer Agreement)

Students enrolling in the Associate in Arts, Associate in Science, or Associate in Fine Arts degree programs (baccalaureate transfer) must have completed the following college preparatory courses as outlined in the Illinois Public Act 86-0954:

<table>
<thead>
<tr>
<th>Subject</th>
<th>Years of Coursework</th>
<th>Explanatory Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>Written &amp; oral communications, literature</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
<td>Minimum of one year of Algebra I, one year of geometry, &amp; one year of Algebra II</td>
</tr>
<tr>
<td>Science</td>
<td>2</td>
<td>Laboratory science</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2</td>
<td>History and/or government</td>
</tr>
<tr>
<td>Electives</td>
<td>2</td>
<td>Foreign language, music, art, or vocational education</td>
</tr>
<tr>
<td>Flexible Academic Units</td>
<td>2</td>
<td>Two additional courses from any one or two of the science, social studies, or electives categories in addition to approved courses in math &amp; English such as advanced math, computer science, journalism, speech, &amp; creative writing</td>
</tr>
</tbody>
</table>

Total Academic Units 15

Students who have not fulfilled these requirements when they initially enroll at Carl Sandburg College will be admitted on a provisional basis to the Associate in Arts, Associate in Science, or Associate in Fine Arts degree programs. Carl Sandburg College will incorporate in those students' curriculum courses to compensate for course deficiencies.

College preparatory course requirements for admission to the AA/AS/AFA degree programs as outlined above will be waived for students who have completed 32 semester hours of college coursework (100 level or above) with grades of "C" or better.

Steps to Enroll

Step 1: Discover your options at Sandburg

- Learn more about what Sandburg has to offer. Visit the Welcome Center in building B at the Galesburg campus; or speak with an advisor at the Bushnell or Carthage campuses. Take a tour of campus and explore the various educational programs.

Step 2: Submit an application

- Complete and submit an application at sandburg.edu/apply.
- You will receive a welcome letter about 1 week after with your student ID, email and mySandburg login.

Step 3: Apply for financial aid

- Go to fafsa.ed.gov to complete the Free Application for Federal Student Aid (FAFSA) to apply for both federal and state financial aid.
- If possible, apply before March 1st to ensure the aid that you qualify for is available.
- Carl Sandburg College's code is 007265.
Step 4: Request official transcripts
- High school, GED and all educational institutions.
- Send to: Carl Sandburg College Attn: Admissions 2400 Tom L Wilson Blvd. Galesburg, IL 61401.

Step 5: Take the COMPASS placement test
- This untimed assessment test covers reading, writing and math, and will determine the level of classes you may begin.
- Prepare for this test before you take it. Go to sandburg.edu/compass for practice tests, sample questions.
- If you would like reading assistance to complete the test, please contact Disability Support Services at 309.341.5262.
- Register at sandburg.edu/compass; welcomecenter@sandburg.edu or 309.345.3500.
- Students with documentation of ACT scores of 20 in reading and English and 25 in math may opt out if scores are less than 2 years old.

Step 6: Register for classes
- Schedule an appointment with an advisor to register for courses. Call 309.341.5237 at the Galesburg campus, 309.772.2177 at Bushnell and 217.357.3129 at Carthage.

For additional assistance contact the Welcome Center welcomecenter@sandburg.edu 309.345.3500

Readmission
Students who have previously attended Carl Sandburg College and want to return after an absence of one semester or more must notify the Admissions and Records Office of any changes in name, address, phone number, academic program, etc. Some academic programs have special readmission policies and procedures.

Community College Partnership with Bellevue University
Carl Sandburg College and Bellevue University (Neb.) have entered into an Articulation and Community College Partnership. Any Carl Sandburg College student who attends Bellevue University and has earned their Associate Degree will have all of their credits accepted at Bellevue and will have all of their General Education requirements fulfilled but must satisfy the Kirkpatrick Signature Series requirement (specific to Bellevue University).

Study Abroad
Carl Sandburg College works in conjunction with the Illinois Consortium for International Studies and Programs (ICISP) and other Illinois community colleges in order to provide semester study abroad programs for its students to Canterbury, England; Carlow, Ireland; Salzburg, Austria; Seville, Spain; and Xi’an, China, and to offer summer study abroad to Salzburg, Austria; San Jose, Costa Rica; and Sydney, Australia. These programs are intended to provide students with a better understanding of the world via living and studying in different cultural environments around the world. Students reside with host families for all programs except Australia, China, and Ireland, where students stay in apartment or residence hall accommodations. For all programs requiring language courses, no prior experience is required. However, students with previous language experience will be tested and placed in the appropriate classes. During their study abroad, students are registered as Carl Sandburg College students and receive course credit directly through the College. Students are required to have a 2.75 or higher GPA, a "C" or better in English 101, and 12-15 hours of college credit in order to participate in Sandburg study abroad opportunities.
Tuition & Financial Assistance

Tuition and fees are subject to change without notice.

Tuition

Tuition for District Residents
Tuition for residents of Community College District 518 is charged at an in-district rate per semester hour for tuition in the 2014-2015 academic year. Check with the Carl Sandburg College Business Office for current tuition rate.

Tuition for Out-of-District Residents
Students who are residents of Illinois but who live outside of Community College District 518 pay a higher tuition rate. Check with the Sandburg Business Office for current tuition rate.

Tuition for Out-of-State Residents
All students who do not maintain a legal residence in the State of Illinois pay a higher tuition rate. Check with the Sandburg Business Office for current tuition rate.

International Student Tuition
International students who attend Carl Sandburg College on a temporary visa will pay the out-of-state tuition rate. Students under this category are not eligible to qualify for in-district rates.

Proof of Residence
Students who move from outside the state or district and who obtain residence in the state or district for reasons other than attending the community college shall be exempt from the 30-day requirement if they demonstrate through documentation a verifiable interest in establishing permanent residency. Students must be able to provide one or more of the following:

1. Voter registration in District 518
2. Evidence of tax, utility, or rent receipt, or a signed lease contract in District 518
3. Driver’s license and/or vehicle registration showing an address in District 518
4. Other documentation which can help certify residency in District 518

A student who resides with his or her parents or guardian in Community College District 518 is a resident student. An emancipated student who is completely self-supporting and who has resided in Community College District 518 for at least 30 days prior to the beginning of the semester at Carl Sandburg College shall be considered a resident of the District. Students who are enrolled in an approved cooperative program between Carl Sandburg College and another college may be eligible to receive in-district rates. Students who qualify under other ICCB regulations are eligible to receive in-district tuition rates. Students cannot qualify for in-district tuition rates while on a temporary visa.

Tuition Waivers for Senior Citizens
District 518 residents 65 years of age or older are permitted to participate in credit-bearing courses at no charge for tuition (No Credit Awarded), provided there are spaces in the classes and that tuition-paying students constitute the minimum number required for enrollment in those classes. Verification of age is required by presenting an Illinois driver’s license or other appropriate documentation at the time of enrollment. Payment is required for all fees, books, and supplies.

Tuition Charge-Backs for Carl Sandburg College District Residents Attending Other Community Colleges
Residents of Community College District 518 may enroll in a vocational program, as opposed to an occasional course, at another Illinois community college and pay only resident tuition at that institution providing that program is not offered at Carl Sandburg College.

A charge-back application must be obtained from Carl Sandburg College, completed and returned 30 days prior to the beginning of the school term for which the application is being made. See the Student Services Office for additional information.

Payment of Tuition and Fees
Students may pay tuition and fees in cash, by check, or bank card. The College accepts VISA, MasterCard, Discover, or American Express for tuition and fees payment. Credit card payment may also be used for Phone and Online Registration. For a small fee, students enrolling in semester classes can defer a portion of their tuition and fee charges (see Deferment Policy below). Check with the Sandburg Business Office for current rates.

Deferment Policy
An Interest-Free Monthly Payment Plan through Nelnet Business Solutions (formerly FACTS Management Co.) is available. This Monthly Payment Plan enables you to spread tuition payments equally over several months without interest or finance charges. By paying monthly, you limit borrowing and keep the overall costs of education down. The Monthly Payment Plan is available to all families regardless of financial need. There is a minimal enrollment fee to cover administrative costs. The registration for the Monthly Payment Plan will be via the Internet and students must possess either a credit card or maintain a checking or savings account from which to withdraw the payments. Nelnet accepts MasterCard, Visa, Discover and American Express.

Community College Educational Agreement
The Board of Trustees of Carl Sandburg College and the Illinois Community Colleges listed below have entered into an agreement for the purpose of providing additional educational programs to the citizens of each district involved in this agreement. Students will pay the resident tuition and fees of the institution they attend. Details for eligibility to participate in this cooperative agreement are available by contacting the Admissions Office, 309.341.5487.
Participating Colleges
- Black Hawk College
- Carl Sandburg College
- Danville Community College
- Elgin Community College
- Heartland Community College
- Highland Community College
- Illinois Central College
- Illinois Valley Community College
- John Wood Community College
- Joliet Junior College
- Kankakee Community College
- Kishwaukee Community College
- Lake Land College
- Lewis & Clark Community College
- Lincoln Land Community College
- McHenry County College
- Moraine Valley Community College
- Morton College
- Prairie State College
- Rend Lake College
- Richland Community College
- Rock Valley College
- Sauk Valley Community College
- South Suburban College
- Southwestern Illinois College
- Spoon River College
- Waubonsee Community College

Southeastern Community College (Iowa) Agreement

Carl Sandburg College and Southeastern Iowa Community College have an agreement regarding tuition payments at the reciprocal institution. Students residing in the Carl Sandburg District may attend Southeastern Community College at their in-district rate. Conversely, students in the Southeastern Community College district will receive the in-district rate at Carl Sandburg College.

Refund Schedule

Tuition refunds will be issued to eligible students based upon effective date of withdrawals. The date that a written request for withdrawal is received by the Admissions and Records Office determines the effective date of withdrawal.

Full refund of tuition and fees will be made if the College cancels a course.

Refunds will be determined on the basis of the following schedule:

<table>
<thead>
<tr>
<th>Length of Class</th>
<th>Refund Period*</th>
<th>% Refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-16 Weeks</td>
<td>1st 9 calendar days of term</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Thereafter</td>
<td>0%</td>
</tr>
<tr>
<td>5-8 Weeks</td>
<td>1st 5 calendar days of term</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Thereafter</td>
<td>0%</td>
</tr>
<tr>
<td>4 Weeks</td>
<td>1st 3 calendar days of term</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Thereafter</td>
<td>0%</td>
</tr>
<tr>
<td>2-3 Weeks</td>
<td>1st 2 calendar days of term</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Thereafter</td>
<td>0%</td>
</tr>
<tr>
<td>Less than 2 Weeks</td>
<td>Prior to Day 1</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>Thereafter</td>
<td>0%</td>
</tr>
</tbody>
</table>

* Refund period refers to the number of calendar days beginning with the first day of the term.

Important Note for Financial Aid Recipients — Return of Title IV Policy

Federal financial aid (Title IV student aid) funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of Title IV funds that the student was originally scheduled to receive. When a student receiving Title IV student financial aid withdraws from all courses, the aid must be adjusted in accordance with rules established by the U.S. Department of Education. These calculations may result in the student owing an institutional balance. Students who do not complete at least 60% of a period of enrollment may be required to return federal student aid received. These rules apply to both students who formally withdraw from classes as well as students who receive a zero grade point average (GPA) (grades of "W" and "F") for a semester and/or any period of enrollment less than a semester if enrolled in four- or eight-week courses.

The last date of attendance is determined to be the withdrawal date or the last recorded date of activity as documented by the institution. If the student ceases attendance without providing official notification of withdrawal to the institution, the mid-point of the payment period or period of enrollment, or the last recorded day of activity will be the withdrawal date for the purpose of returning Title IV funds. A copy of this policy is available in the Financial Aid Office. If you have any questions about how this law may affect you, please contact the Financial Aid Office prior to withdrawing from the College.

Obligations to the College

Students must meet all financial obligations to the College and return all materials owned by the College before they will be allowed to re-register and to receive grade reports, diplomas, certificates, and transcripts.

Financial Assistance

Carl Sandburg College participates in federal, state and institutional financial aid programs to assist students in meeting the costs of higher education. Financial aid is available in the form of grants, loans, scholarships and work study.

How to Apply for Financial Aid

1. Apply for admission.
2. Complete the Free Application for Federal Student Aid (FAFSA). Sandburg’s Federal School code is 007265. You may complete the FAFSA online via the Internet at www.fafsa.gov (http://
www.fafsa.gov). Students who live in the Carl Sandburg College district and who attend Southeastern Community College should list Carl Sandburg College as their college choice with the code number stated above. These forms will be used to award federal, state, and some institutional aid.

3. You will receive a Student Aid Report (SAR) approximately two weeks after filing the FAFSA. If you provide an e-mail address, you will receive the results via e-mail. Otherwise the SAR will be mailed to your home address. Review these forms and notify the Financial Aid Office of any errors.

4. Respond quickly to any request(s) for additional information from our Financial Aid Office.

5. You will receive a Financial Aid Award Notification from Carl Sandburg College indicating the amount and types of aid you are eligible to receive. If you are eligible for a loan, you must complete additional steps. Follow the instructions included with the award notification.

**Standards of Academic Progress**

Students receiving financial aid are required to meet Satisfactory Academic Progress (SAP) standards according to federal and state regulations. Academic records are reviewed for all students receiving financial aid and those being considered for financial aid from the following sources: Federal Pell Grant, Federal Work Study Program, Federal Supplemental Educational Opportunity Grant, Illinois Monetary Award Program (MAP), Federal Direct Parent PLUS Loan, and Federal Direct Stafford Loan (Subsidized and Unsubsidized). The student's status is evaluated at the end of each semester.

Students will be considered to have an eligible SAP status if they:

- Maintain a cumulative grade point average (GPA) of 2.0 or better
- Satisfactorily complete 67% or more of credit hours attempted
- Graduate within 150% of the credit hours required to complete the student's program

A student who has not met the minimum GPA requirement of 2.0 or higher, or has not completed the minimum credit hours will be assigned a classification of Warning for one semester, after which the student will be assigned a classification of Dismissal if SAP requirements are not met.

If a student does not meet SAP requirements at the conclusion of the Warning semester, the student will be placed on Dismissal. A student with a Dismissal status is no longer eligible for the financial aid programs listed above.

**Reinstatement of Financial Aid / Right to Appeal / Academic Plan**

A student who is eligible for financial aid can regain eligibility for financial aid by fulfilling one of the following conditions:

1. Eliminate all academic deficiencies by completing the number of credit hours necessary, at the student's own expense, to meet the 67% requirement and attain the minimum 2.0 cumulative GPA.

2. Appeal and be granted Probationary Reinstatement of Aid. Appeals may only be granted where it is statistically possible for the student to meet the 67% requirement and attain the minimum 2.0 cumulative GPA by the end of the next semester of enrollment.

3. Appeal and be granted an Academic Improvement Plan where they can continue to receive financial aid to complete their program as long as they meet the terms of the plan.

**Academic Improvement Plan**

Students who appeal and who need more than one semester to complete their academic goals, may be reinstated under an Academic Improvement Plan. This plan requires that students meet the following stipulations each semester until they attain good standing:

- Successfully complete 75% or more of credit hours attempted each semester
- Obtain a semester GPA of 2.2 or higher each semester

Students who fail to meet any of the above requirements while under the Academic Improvement Plan will have their financial aid terminated.

The complete SAP policy, including examples, is available on the College website or by visiting the Financial Aid Office.

**Developmental Hours**

A student is limited to 30 developmental credit hours while receiving financial aid. Federal financial aid will not cover any developmental courses taken after the student has reached the maximum 30 hours. These courses include, but are not limited to:

- MAT.090 Arithmetic Fundamentals 1-3
- MAT.093 Fundamentals of Algebra 1-3
- MAT.099 Intermediate Algebra 4
- ENG.094 English Fundamentals 1 3
- ENG.098 English Fundamentals 2 3
- RDG.092 Academic Reading III 3
- RDG.096 College Survival Skills 3

**Repeated Courses**

Students may receive financial aid for repeating courses. However, if retaking a previously passed course, financial aid can only be used for one repeat of the course. Any courses that are repeated will be used in the calculation of a student's Satisfactory Academic Progress status. Each repetition will count toward the enrolled hours; however, only the course(s) being counted in the GPA calculation will be counted in completed hours for SAP.

Note: All information is subject to change based on changes to federal law, regulation, or College policy and procedure. If changes are made, students must abide by the new policy.

**Student Financial Assistance Programs**

(Unless otherwise specified, follow the steps under “How to Apply for Financial Aid” for the programs listed.)

**Grants**

**Federal PELL Grant**

Federal grants that offer from $595 - $5730 per year based on financial need. Eligibility is based on financial need and enrollment.
Federal Supplemental Educational Opportunity Grant (FSEOG)
These federal grant funds are awarded by Carl Sandburg College based on need, income, and application date. Award amounts vary. Students must be Pell eligible to receive FSEOG funds.

Monetary Award Program (MAP)
An Illinois program that will pay a portion of tuition, the award is based on financial need. Illinois residency is required and students must be enrolled in at least three credit hours. Maximum award is $2400 per year.

Student Loans
Federal Direct Loan
The Federal Direct Loan Program is administered by the federal government and offers freshman students up to $3500 and sophomores up to $4500 per year. THIS MONEY MUST BE REPAID. You may qualify for a Subsidized Direct Loan and/or an Unsubsidized Direct Loan up to the maximum amounts listed above. First-time Carl Sandburg College loan recipients must complete loan counseling prior to the first loan disbursement.

Carl Sandburg College evaluates all loans on a case-by-case basis. Federal regulations allow an institution to refuse to certify a student loan or certify a loan amount that is less than the student’s determination of need. Students will be notified in writing of the institution’s decision. Carl Sandburg College will not discriminate against any borrower or applicant in obtaining a loan on the basis of race, national origin, religion, sex, marital status, age, or disability status. Loan checks are distributed 30 days after each semester begins. Students who are placed on Financial Aid Probation or Dismissal may be denied student loans.

Subsidized Direct Loan
These loans are based on financial need; therefore, all students may not qualify. With a Subsidized Direct Loan, no interest accumulates and no repayment is required as long as the student is enrolled in college at least half-time. Students have six months after they drop below half-time before repayment is required and interest begins to accrue. The interest rate for loans disbursed after July 1, 2011, is currently fixed at 3.4%.

Unsubsidized Direct Loan
Students who do not qualify for maximum Subsidized Direct Loans may borrow up to the maximum amounts above less Subsidized Loans through the Unsubsidized Direct Loan program. The interest rate for loans changes annually on July 1, and is capped at 6.8%. The current rate is available at www.studentaid.ed.gov. (http://www.studentaid.ed.gov)

Federal Direct PLUS Loans
A loan in which parents of dependent students may borrow to pay for educational expenses. Family income is not taken into consideration; therefore, the program is open to almost any family who qualifies based on credit. The family can borrow up to the cost of education, less other aid received. Interest rate is fixed at 7.9%. Repayment begins immediately. To determine eligibility, you must apply for federal student aid as outlined in this Financial Aid section of the catalog.

Other Programs
Federal Work-Study Program (FWS)
These federal funds are awarded to students interested in working to help meet their financial need. An FWS award allows the student to work on campus to earn money. An award does not guarantee a job will be available or that the student will earn the entire award.

Illinois National Guard
Tuition and fees are paid by the National Guard for students who have completed one year of service and who are currently enrolled in the National Guard. The student must be an Illinois resident, have a grade point average 2.0 or higher and submit a Notification of Eligibility annually to the Coordinator of Veterans and Military Personnel Student Services. Eligibility is limited to eight semesters of full-time attendance. Apply online at www.isac.com.

Illinois Veterans Grants (IVG)
This program will pay all tuition and fees for students who qualify. The student must:
1. be a veteran,
2. have resided in Illinois six months before entering the armed services,
3. have at least a year of active duty and receive an honorable discharge,
4. return to Illinois within six months after discharge from the service,
5. maintain a grade point average of 2.0 or higher.

IVG applications are available at www.isac.com.

Western Illinois Works
Persons who are interested in training/retraining may consider applying for WIA. For more information contact your local WIA Office:
Hancock County
71 S. Adams St., Suite F
Carthage, IL 62321
217.357.6749

Knox County
311 East Main Street, Suite 612
Galesburg, IL 61401
309.343.9832

McDonough County
440 North Lafayette
P.O. Box 298
Macomb, IL 61455
309.837.1280

Warren County
88A Public Square
Monmouth, IL 61462
309.734.4745

Department of Rehabilitation Services (DORS)
Financial Assistance is available, as a grant, for students with a disability which is considered a substantial vocational handicap to employment. For additional information contact your local DORS office. The Galesburg office is located at 477 E. Main St., Suite A, Galesburg, IL 61401, or phone 309.343.2193.

College-Sponsored Programs
Carl Sandburg College Foundation Scholarships
The Carl Sandburg College Foundation is overseen by a volunteer board of directors who provide policy direction for the non-profit, tax-exempt
organization established to secure additional funds for the College. Contributions to the Foundation provide scholarships and financial support that enable Carl Sandburg College to offer more programs and enhance what is already an outstanding institution of higher education. Contributions are accepted from individuals, local businesses, national foundations, and state and federal sources to enhance the College's mission.

The Foundation provides academic, general, and financial need scholarships. These scholarships are intended to provide support for students of all ages in occupational and transfer curricula.

Scholarship awards are based on individual scholarship guidelines. Distribution of payment is determined solely by the Sandburg Foundation and is not subject to change by outside departments.

For further information regarding scholarships, please contact the Foundation Office or the Financial Aid Office on The Main Campus. At The Branch Campus or The Extension Center, contact the Student Services Generalist.

Visit the Foundation Web site at www.cscfoundation.org (http://www.cscfoundation.org) or go to stars.sandburg.edu to apply.

Other Forms of Assistance

Talent Grants
Talent Grants are available to students with exceptional talent in the areas of creative writing, journalism, music, theatre, art, or athletics. Students may receive a grant waiving in-district tuition for up to 18 credit hours per semester. Recipients are selected by a committee from the Student Services Division. Interested students should contact the Student Services Office for details.

Carl Sandburg College Foundation Crisis Grants/Loans
The Carl Sandburg College Foundation offers emergency financial assistance to Sandburg students who may have a problem paying a one-time bill that could jeopardize the applicant's ability to remain enrolled at Carl Sandburg College. A one-time loan could be approved if the student meets the eligibility requirements. (Student will be required to show documentation of financial situation and submit a letter explaining specific circumstances.) For information, students should request a Crisis Grant/Loan application from the Foundation Office. If eligible, students will receive a response within 72 hours.

Veterans' Assistance
State and Federal assistance is available at Carl Sandburg College for qualified veterans and the children and spouses of veterans who died or are permanently and totally disabled as the result of a service-connected disability. For information on eligibility and the application process for the benefits available under these and other programs, contact the Coordinator of Veterans and Military Personnel Student Services in the Financial Aid Office. Academic programs listed in the catalog as "Pending ICCB Approval" are not eligible for VA Certification until the approval is received from ICCB and approved by the Department of Veterans Affairs.

State Assistance
The State of Illinois provides assistance to veterans through the Illinois Veteran Grant and through the Illinois National Guard Scholarship. Eligible veterans will receive credit for full tuition and for registration fees for approved courses at any Illinois state-controlled college, university or community college. To maintain eligibility for either of the grants listed above, students must maintain a 2.0 grade point average and meet any other eligibility requirements.

Federal Assistance
The Veteran's Administration offers a variety of federal entitlement programs through the GI Bill and other VA programs. Eligible veterans may receive a monthly check to cover school-related and other expenses while attending college in an approved program of study.

The Montgomery GI Bill, Active Duty, Chapter 30
Eligible veterans may receive up to 36 months of educational benefits through this program. The monthly benefits a veteran may receive are based on the veteran's military training, category, length of service, and any applicable "kickers" provided by the Department of Defense. Most eligible veterans are permitted 10 years from the point of discharge to use his/her benefits; however, exceptions may exist that could shorten or extend that period of entitlement. For additional information, visit www.gibill.va.gov (http://www.gibill.va.gov).

The Montgomery GI Bill, Selected Reserve, Chapter 1606
Most of the selected reserves may be eligible for receiving educational assistance through this program. The selected reserve includes the Army Reserve, Navy Reserve, Air Force Reserve, Marine Corps Reserve, Coast Guard Reserve, the Army National Guard, and the Air National Guard. Eligible reservists may receive up to 36 months of educational benefits through this program. In certain cases involving mobilization, the period of eligibility may be extended. For additional information, visit www.gibill.va.gov (http://www.gibill.va.gov).

The Post-9/11 Veterans Education Assistance Act of 2008
The Post-9/11 GI Bill is a recently introduced benefit providing educational assistance to individuals who have served on active duty on or after September 11, 2001. For specific information regarding eligibility requirements, the length for which assistance is available, and the amount of the entitlement allotment, please visit www.gibill.va.gov (http://www.gibill.va.gov).

Reserve Educational Assistance Program (REAP)/Chapter 1607
REAP is the new Department of Defense education benefit program designed to provide educational assistance to members of the Reserve components called or ordered to active duty in response to a war or national emergency (contingency operation) as declared by the President or Congress.

The Secretaries of each military service, the Department of Defense, and the Department of Homeland Security (Coast Guard) determine the criteria for eligibility. The law requires DoD provide written notification of eligibility for REAP. A member of a reserve component who serves on active duty on or after September 11, 2001, under title 10 U.S. Code for contingency operation and who serves at least 90 consecutive days or more is eligible for chapter 1607. National Guard members also are eligible if their active duty is under section 502(f), title 32 U.S.C. and they served for 90 consecutive days when authorized by the President or the Secretary of Defense for a national emergency that is supported by federal funds. Individuals are eligible as soon as they reach the 90-day point regardless of whether they are currently on active duty. The DoD will fully identify those contingency operations that qualify for benefits under chapter 1607.
Disabled members who are injured or who have an illness or disease incurred or aggravated in the line of duty and are released from active duty before completing 90 consecutive days are also eligible.

If you are unsure about whether you are eligible for any VA education benefits, please submit an application to VA.

**Chapter 31**

If you are classified as a Service-Disabled Veteran, the Veteran's Administration will pay the cost of tuition, fees, books, equipment and supplies at an approved college or university.

**Chapter 32 (VEAP)**

The Veteran's Administration provides financial assistance for Post-Vietnam era veterans through the Veterans' Educational Assistance Program (VEAP). To be eligible, veterans must have entered active duty on or after January 1, 1977 and before July 1, 1985 and have contributed to the educational fund before April 1, 1987.

**Chapter 35**

Children and spouses of veterans who died or are permanently and totally disabled as the result of a service-connected disability may be eligible for a financial educational assistance allowance.

**The Restored Entitlement Program for Survivors (REPS)**

The REPS benefit is payable to certain surviving spouses and school children who are survivors of members or former members of the Armed Forces who died while on active duty before August 13, 1981, or died from disabilities incurred in or aggravated by duty before August 13, 1981.

**Carl Sandburg College Standards for Veterans’ Satisfactory Progress**

Carl Sandburg College students who are receiving federal educational benefits through the Veteran's Administration (VA) must make Satisfactory Progress in order to continue receiving benefits. This applies to Illinois Veteran's Grant (IVG), National Guard (NG), Chapter 30, 31, 33, 35, 1606, and 1607 benefits.

VA Satisfactory Progress requires the student to maintain a cumulative GPA of 2.0 or greater after their first semester of attendance. Students who fall below a 2.0 GPA will be placed on Warning. Students on Warning will have one semester to raise their cumulative GPA so that it satisfies the requirement. Students who do not satisfy the cumulative GPA after the warning period will be placed on Carl Sandburg College VA Dismissal and will no longer qualify for VA educational benefits.

Students will be removed from Carl Sandburg College VA Dismissal when their cumulative GPA rises to a 2.0 or above. Students placed on Sandburg VA Dismissal may file a written appeal to reinstate their benefits for an additional semester. Appeals should be turned in to the Financial Aid Office and reviewed by the Veterans Satisfactory Progress Committee. The appeal will be reviewed within 30 calendar days. Students are encouraged to file their appeals early to avoid disruption in benefits.

**Certification Information:**

- Students will only be certified for educational benefits for those courses that apply to their declared academic major.
- Students receiving educational benefits are also expected to complete all of the semester hours for which the student is certified for a given semester. Students who do not complete their semester hours may be responsible to repay funds received for the semester.
Academic Information

Academic Credit

Credit Earned at Carl Sandburg College

The unit of credit measure is the semester hour which approximates the effort expended in 50 minutes of class work and 100 minutes of study during each week of the semester.

Credit for Courses Completed at Other Colleges and Universities

Credit will be granted for courses taken at other accredited institutions in which the student has earned a grade of "C" or better. Credit also will be awarded for courses in which a grade of "D" has been earned, providing the student's overall average from the institution is a "C" or better, unless otherwise stated by specific Carl Sandburg College program requirements. Transfer credit is evaluated and awarded by the Admissions and Records Office.

Credit will be granted toward specific Associate in Applied Science and vocational certificate programs through articulation agreements with Delabar Vocational Education System and Western Area Career System. Check with the Admissions and Records Office for specific applications.

The College will accept as transfer credit all appropriate hours earned at accredited institutions. Regardless of the number of hours accepted, a student must meet the College's residency requirement for graduation. See “Graduation Policies and Procedures” for additional information regarding residency.

Credit for Military Service

Credit for 3 semester hours of physical education and 3 semester hours of health education credit will be awarded to members or former members of the U.S. Armed Forces who have completed six months or more of basic or recruit training and have been honorably discharged or have transferred to the reserve component (includes the Army and Air National Guard and the Coast Guard). To receive this credit, the student must submit a petition to the Admissions and Records Office along with separation papers (DD214).

Certain experiences in military service may be submitted to the Admissions and Records Office for evaluation. The recommendations contained in “A Guide to the Evaluation of Educational Experiences in the Armed Services” by the American Council on Education on Education are used as a basis for such evaluations.

Credit may be given for coursework applicable to a Carl Sandburg College curriculum which was taken through the Defense Activity for Non-Traditional Education Support (DANTES) or under the United States Armed Forces Institute (USAFI), provided the course is recommended by the American Council on Education. The student must submit official transcripts of satisfactory completion of the work to the Admissions and Records Office.

Credit for College Level Examination Program

The College recognizes undergraduate achievement as measured by both the general and subject examinations of the College Level Examination Program (CLEP). Scores may be submitted to the Admissions and Records Office for evaluation, and if the level of achievement is at or above the minimum standards and score levels established by the College, credit may be granted. Carl Sandburg College follows the guidelines of the American Council on Education in accepting CLEP credit. Students may earn up to 24 hours of credit from the general examinations of the College Level Examination Program in the areas of humanities, mathematics, natural sciences and social sciences. In addition, many of the CLEP subject examinations may be accepted for credit based upon the score recommendations of the American Council on Education.

Students should discuss the CLEP options with a Student Services counselor prior to registering for any of the examinations.

Regardless of the number of hours earned through CLEP, the student must meet the College's residency requirement for graduation. See “Graduation Policies and Procedures” for additional information.

NOTE: If results of CLEP examinations are to be sent to another school for credit recognition, students are advised to check with the transfer school to determine its policy toward credit by examination.

Departmental Proficiency Examinations

Students may receive credit for a course at Carl Sandburg College by passing institutional proficiency examinations with a grade of "C" or better. The decision as to whether or not any particular course may be eligible for proficiency is made by the instructional department offering the course. The fee for each proficiency exam is equivalent to the cost of CLEP exams. Regardless of the number of hours earned through proficiency exams, a student must meet the College's residency requirement for graduation. See “Graduation Policies and Procedures” for additional information. Additional information about proficiency examinations may be obtained from the Admissions and Records Office.

Military Continuing Education Programs

Carl Sandburg College is a participant in the Illinois Community College Military Continuing Education Program designed to meet the needs of U.S. Army, Army National Guard, and Army Reserve soldiers pursuing an Associate's degree.

Advanced Placement Program

This program and associated tests are offered only in high schools. Students who have participated in the AP program may be eligible to receive credit and advanced placement on the basis of tests in certain subjects determined by Carl Sandburg College.

Students wishing such credit or placement should request the College Entrance Examination Board to send their AP scored examinations to the Admissions and Records Office. Upon notification from the Registrar, students can then have any credit which was awarded placed upon their transcript.

Grades

Grades are issued at the close of each academic term on a letter basis indicating quality of academic work. Grades issued by Carl Sandburg College are:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Superior work</td>
</tr>
<tr>
<td>B</td>
<td>Good work</td>
</tr>
<tr>
<td>C</td>
<td>Average work</td>
</tr>
<tr>
<td>D</td>
<td>Poor work</td>
</tr>
<tr>
<td>F</td>
<td>Failing work</td>
</tr>
</tbody>
</table>
Incomplete. Incomplete indicates that the student has, for acceptable reasons, been unable to complete the required work by the close of the semester. "I" is permissible only when the student has maintained a passing grade as revealed by the class record. An "I" must be changed by the instructor to an appropriate letter grade by mid-term of the following academic term or it will default to a grade of "F."

Satisfactory work. Credit granted. Not calculated in grade point average.

Unsatisfactory work. No credit granted. Not calculated in grade point average.

Audit. Course which was taken without credit.

Withdrawal. No credit. Not calculated in grade point average.

Transcripts
The Admissions and Records Office will make a copy of a student’s transcript (official academic or permanent record) when requested to do so. All requests for transcripts must be made in writing by the student. "Transcript Request" forms are available in the Admissions and Records Office and at www.sandburg.edu. Other forms of written requests such as signed letters, postcards, FAX, or electronically signed e-mails will be accepted. No transcripts will be released without the written permission of the student. The College reserves the right to withhold transcripts of persons who have financial obligations with the College. http://www.sandburg.edu/admissions/request-transcripts

Grade Point Average
Grade point averages are calculated by dividing the number of grade points earned by the number of semester hours attempted.

The number of grade points for a given course is found by multiplying the grade point value (A = 4; B = 3; C = 2; D = 1; F = 0) by the number of semester hours which may be earned in the course.

Example:

<table>
<thead>
<tr>
<th>Class</th>
<th>Grade</th>
<th>Points</th>
<th>Semester Hours</th>
<th>Credit Hours</th>
<th>Total Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>B</td>
<td>3 x 4</td>
<td>= 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech</td>
<td>C</td>
<td>2 x 3</td>
<td>= 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>History</td>
<td>A</td>
<td>4 x 4</td>
<td>= 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>34</td>
</tr>
</tbody>
</table>

(34 divided by 11 equals 3.09)
Grade Point Average (GPA) is 3.09

Records Policy
The College's policy regarding student records is intended to comply fully with the Family Educational Rights and Privacy Act of 1974. This Act was designed to protect the privacy of educational records, to establish the right of students to inspect and review their educational records, and to provide guidelines for correction of inaccurate or misleading data through formal and informal hearings. Students also have the right to file complaints with the Family Educational Rights and Privacy Act Office, Department of Education, Washington, DC 20202, concerning the alleged failures of Carl Sandburg College to comply with the Act. Copies of the College policy are available in the Admissions and Records Office.

Carl Sandburg College designates the following categories of student information as public or "directory information": name, address, telephone listing, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, and the most recent previous educational agency or institution attended by the student.

The above information may be disclosed by the institution for any purpose at its discretion. However, currently enrolled students may withhold disclosure of these items by notifying the Admissions and Records Office in writing within the first fourteen days of classes each semester. Request for non-disclosure must be made each semester.

Questions concerning the Family Education Rights and Privacy Act may be referred to the Admissions and Records Office.

Academic Record Appeal
In accordance with the provisions of the Family Education Rights and Privacy Act of 1974 (FERPA), students may appeal the accuracy of their permanent record (transcript). This right permits the student to appeal only the accuracy of the record which contains the grade; it does not permit the student to appeal the grade given by the instructor. (See “Framework for Addressing Student Concerns, Grievances, Sexual Harrassment, and Discrimination" for information about appealing grades.)

Academic record appeals must be filed by the student with the Admissions and Records Office within 60 days of the closing of the academic term.

Academic Honors
A Dean's Honor List and an Honor List are published six weeks after each semester. Full-time students (those who complete 12 or more semester hours) who have earned a grade point average of 3.5 or better during the term are recognized by the Dean's Honor List. Full-time students (those who complete 12 or more semester hours) who have earned a grade point average of 3.00-3.49 are recognized by the Honor List.

Academic Standing
Students are expected to make satisfactory academic progress toward attaining an expressed educational objective. Satisfactory academic progress is measured in terms of grades earned. A 2.00 cumulative grade point average for all courses applicable to a specific degree or certificate is required for graduation from Carl Sandburg College. A 2.00 cumulative grade point average is also required for transfer to most senior institutions. Anytime either the semester or the cumulative grade point average falls below 2.00, the student should reassess his/her educational objectives and study habits. The student should seek assistance from instructors, academic advisors, and counselors in the reassessment process.

Good Standing
To be in good standing, a student must maintain a cumulative grade point average of 2.00.

Academic Warning
Anytime a student's semester grade point average falls below 2.00, this message will appear on the grade report: "Academic Warning. Seek advice of your advisor."
Academic Load
For purposes of certifying that a student is full-time academically, such student must be enrolled for at least 12 semester hours each semester and for at least six semester hours during a summer term. The normal academic load for students expecting to complete their degrees within a two-year period is 12-15 semester hours per term.

Classification of Students
Students are classified as follows:

<table>
<thead>
<tr>
<th>Class</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>0-29 semester hours</td>
</tr>
<tr>
<td>Sophomore</td>
<td>30 or more semester hours</td>
</tr>
<tr>
<td>Unclassified</td>
<td>Not pursuing a specific educational program</td>
</tr>
</tbody>
</table>

Repeating Courses
A student who receives a "D" or "F" in a course may repeat the course once by filing a petition in the Admissions and Records Office. Only the higher grade will be computed in the grade point average. NOTE: Students planning to transfer to another college or university are cautioned that the receiving institution may use all grades earned in computing a grade point average for admission purposes.

Auditing Courses
Students may audit courses. In such cases, grades of "T" will be assigned. This grade does not grant credit nor is it calculated in the grade point average. Students wishing to audit a class will be required to pay full tuition and fees for the class.

Students will be admitted to classes on an audit basis on a space-available status only. Students enrolling for credit will be given registration priority over students desiring to audit a course. Students may register to audit a course only during Late Registration (after the class has begun).

Students may change from "credit" to "audit" in a course from the first day of the class through the midsemester date for that class. Students may, with permission from the instructor, change from "audit" to "credit" at any time prior to the midsemester date for the class.

Auditing students are expected to attend class but are not required to submit assignments or take examinations.

Class Attendance
Students are expected to attend all regularly scheduled classes and are responsible for fulfilling the requirements of each semester. Individual instructors may set class attendance requirements that they consider to be reasonable and that are consistent with the objectives of the course. Instructors may assign final grades based, in part, upon class attendance.

Effective Spring 2011: Students who do not attend class during the first four days of the semester will be dropped from the class.

Carl Sandburg College has a mandatory attendance policy for all classes. Non-attendance during the first four days of the semester/class will result in the class being dropped from your schedule. For online and self-paced courses, this means participating in the week one discussion and/or e-mailing your instructor. If you are unable to attend due to an emergency or conflict of a serious nature, you must contact your instructor. If an instructor is not designated, you should contact the Retention Specialist at 309.341.5483. If you are dropped from a course and wish to re-enroll, you will need instructor permission. Instructors have the right to deny you re-enrollment if the course is full or if it would be too late to make up missed work. If you decide to drop the class, it is your responsibility to verify that the course has been officially dropped from your class schedule and fees adjusted prior to the end of the 100% refund period.

Withdrawal from Courses
Once registered in a course, students may be withdrawn in one of three ways:

1. Students may officially withdraw from classes until the Tuesday of the 14th week of a 16-week calendar. See the Academic Calendar for withdrawal dates for terms less than 16 weeks.*

   Students who withdraw from classes prior to the first day or during the refund period may do so without notation on their permanent records (transcripts). After the refund period, students who withdraw from classes will receive a grade of "W" for those classes. This grade will not affect the grade point average. Refund dates are noted under the Tuition section of the catalog and are listed in the term's Class Schedule.

   To withdraw from a class, students must notify the Admissions and Records Office in writing of their intentions by either completing a "Student Class Schedule Change" form or by sending a letter. The official date of withdrawal will be the date on which the form or letter is received by the Admissions and Records Office. Students who do not officially withdraw from a course will receive a grade of "F" for that course.

   Students who withdraw from all courses are encouraged to have an exit interview with a Student Services counselor.

2. Instructor-Initiated Withdrawal. Instructors may withdraw students from classes at mid-term for non-attendance. Instructor-initiated withdrawals will result in grades of "W."

3. Administrative-Initiated Withdrawal. The administration may withdraw students from classes for emergency or disciplinary reasons after due process. These withdrawals will result in grades of "W."

   * Date is pro-rated based upon length of the term.

Important Note for Financial Aid Recipients
Students who withdraw or who receive instructor-initiated withdrawals from all of their courses prior to the 11th week of the semester and who received Federal Financial Aid (Pell Grant, SEOG, Direct Loans) to pay tuition, fees, books, or as cash, will be responsible to repay part of the monies received. The College follows the federal requirements for Repayment of Title IV funds. A copy of this policy is available in the Financial Aid Office or the Business Office.

Graduation Policies and Procedures
It is the responsibility of the student to know and to observe the requirements of his/her curriculum and the rules governing academic work. Although the advisor will attempt to help the student make wise decisions, the final responsibility for meeting the requirements for graduation rests with the student.

Degree and certificate requirements stated in the Carl Sandburg College catalog will remain in effect for five academic years beginning with the
student's initial enrollment in a given academic program. If changes occur in graduation requirements subsequent to initial enrollment, the student may elect to graduate under the most recent degree or certificate requirements. If more than five years have passed since the student's initial enrollment, the student may choose a more recent (five years or less) version of the chosen academic program.

In addition to fulfilling the course requirements for individual academic programs as stated by the College, students who intend to graduate from Carl Sandburg College must meet these requirements:

1. File a petition for graduation in the Admissions and Records Office prior to the beginning of registration for their last semester of classes. Petition forms are available in the Admissions and Records Office.
2. Satisfy the minimum credit hour residence requirement.
3. Fulfill all financial obligations to the College.
4. Earn a cumulative grade point average of 2.0 or better for all courses which are applicable toward the degree or certificate.
5. There may be occasions when a student meets the criteria to graduate but has not completed a petition to graduate. Carl Sandburg College reserves the right to grant certificates or degrees to these students as qualifications are verified.

Residency Requirement for Graduation

Associate Degree candidates must earn fifteen (15) of the required semester hours in residence at the College. Certificate candidates must earn one-third (1/3) of the required semester hours in residence at the College. Residency is defined as enrollment and completion of courses taught by Carl Sandburg College. Credit earned by other than coursework (i.e., examination, advanced placement, etc.) may not be counted as part of the residency requirement for either degrees or certificates.

Graduation Honors

Honors

Designation for graduates whose cumulative grade point average for the course of study at the College is within the 3.50-3.69 range.

High Honors

Designation for graduates whose cumulative grade point average for the course of study at the College is within the 3.70-3.89 range.

Highest Honors

Designation for graduates whose cumulative grade point average is within the 3.90-4.00 range.

Certification

Candidates for certification in specific fields (i.e., nursing, cosmetology, real estate, etc.) are responsible for fulfilling any special accreditation or certification requirements of the State of Illinois.

Policy on Program Guarantees

The educational programs offered through Carl Sandburg College are of the highest quality. The Board of Trustees directs the administration to develop guidelines that guarantee graduates the following:

1. Within proper circumstances, as articulated by the administration, transfer course work taken at Carl Sandburg College will be honored at educational institutions within the State of Illinois either as program requirements or as electives.
2. Within proper circumstances, graduates of occupational programs offered through Carl Sandburg College will have the appropriate mastery of entry level skills.

In the event that graduates fail to have course work transfer or fail to have entry level technical skills, an opportunity to repeat or take additional educational course work at Carl Sandburg College will be offered to the student with a full tuition and fee waiver. (Policy No. 3.21)

Carl Sandburg College Honors Program

The Carl Sandburg College Honors Program is for exceptional students who want to excel in college. Honors courses are intellectually challenging and involve considerable interaction among students and instructors. The Honors Program requires that students participate in an Honors Learning Community and complete an Honors Option.

Opportunities through Honors: friendly learning environment, challenging courses, independent study, honors scholarships, awards, and recognition on college transcripts.

There are many ways to be eligible to apply for the Honors Program. You can apply if you have one of the following: score of 83 or above on the Reading Skills section of the COMPASS test; a cumulative high school GPA of 3.5 or higher; graduated in the top 10% of your high school class; had a composite score of 25 or above on the ACT; received a combined score of 1000 on the SAT; completed 12 college transfer credits with a minimum 3.25 GPA; completed 12 Carl Sandburg College transfer credits with a minimum 3.25 GPA; or are recommended by an instructor or counselor.

If you meet one of more of these requirements, you should contact the Honors Program Coordinator and pick up an application. The application process is simple and you will be notified within two weeks if you are accepted into the Honors Program.

What is an Honors Learning Community? An Honors Learning Community combines two different courses in two different disciplines. The courses are team taught by two instructors. The faculty cooperate together to integrate content and coordinate syllabi, strategies, and assignments. Outstanding faculty teach the classes. Honors courses are designed to help students learn and apply diverse concepts while stressing collaborative activity and creative and critical thinking.

What is an Honors Option? An Honors Option is taken after completing the Learning Community Linked Classes with a minimum 3.0 GPA. For instance, you may give a presentation, do research on a specific topic, or volunteer your time. The experience will generate a paper or a portfolio. Early in the semester, you should work with your instructor to develop an Honors Option. Your instructor and the Honors Program Director will agree on what is to be completed for Honors Credit.

Upon successful completion, the Honors Program offers an Honors Certification. The award will be noted on your transcript, and you will be recognized at Spring Commencement.

The requirements for the Honors Certificate are as follows: you must complete a minimum of 6 Honors Credits from Honors Learning Community Linked Classes and complete a non-credit Honors project; and you must maintain a GPA of 3.0 in your Honors classes.

For more information, comments or questions about the Carl Sandburg College Honors Program, please contact the Honors Program Coordinator at Carl Sandburg College, 309.341.5307.
Illinois Community Colleges Online

Illinois Community Colleges Online (ILCCO) is a consortium of Illinois community colleges working together to provide leadership, facilitate collaboration and share resources in online and technology-enhanced education. This program allows students to enroll in online courses at other Illinois community colleges while maintaining their Sandburg enrollment status. Students will participate in another college’s online course but will receive billing, financial aid and transcripts from Sandburg. Students can search for eligible ILCCO courses, by clicking on “Full Course Listings” on the Internet Course Exchange System (http://ice.ilcco.net/) or go to “Online Learning” under “Academics” on the main Sandburg website. To enroll in an ILCCO course, students need to contact their counselor as early as possible prior to the beginning of a semester as the enrollment process takes time and is not guaranteed.

Career Cruising

The Complete Guidance System

Career Cruising is an interactive career resource designed for students of all ages. Career Cruising was designed with one goal in mind: to help students plan their futures.

With Career Cruising’s exceptional assessment tools, detailed occupational profiles, and comprehensive post-secondary education information, students can move seamlessly through the career exploration and planning process.

The program features:

• Interest Assessment
• Skills Match
• Ability Profile
• Learning Styles Inventory
• Occupational Profiles
• College, University, and
• Financial Aid Information
• Career Portfolio Tool
• Career Advisor Management System
• Printable Lesson Plans, Assignments, and Worksheets

Carl Sandburg College students can link to Career Cruising from their "mySANDBURG" portal. Under the "My Bookmarks" tab, click on “Career Cruising”. Students can also access the program by going directly to www.careercruising.com (http://www.careercruising.com) (user name: CSC/password:careers). If you have any questions about the program, please see your counselor or advisor.
Student Services

General Services

Academic Advising
Academic advising is an interactive process involving the student and his/her academic advisor. During the first term, each student is assigned to an academic advisor that specializes in the program the student is pursuing. The academic advisor serves as a valuable resource to the student in the areas of program requirements, graduation requirements and transfer coursework as well as giving guidance when a student may be experiencing difficulty in a course. It is best if the student meets with their advisor prior to registration beginning to review their degree plan and make sure the student is on track with their academic goals.

Career Counseling
Student Services counselors offer an assortment of individual or group services to assist with the process of making a career decision that is insightful and well informed. A variety of personal inventory and occupational assessments are available through the Student Services Office to assist students in making career decisions. Students can make an appointment with a counselor to take the assessments and then for the follow-up and interpretation of the results. Career Counseling services are available to all students of the Carl Sandburg College district at no charge and fall into the categories of self-awareness resources and occupational resources.

Personal Counseling
Short-term counseling services are provided for students facing personal or family problems. Counselors serve as a resource for all students by providing a caring, supportive environment in which students can examine, explore and make decisions about career, personal and academic matters. Students also are assisted in goal clarification, achieving academic success and resolving personal dilemmas.

Career Resources
The Career Resources Office assists students and alumni on all Sandburg campuses with career preparation needs. The following resources are available free of charge:

• Employability Skills Academy: Provides learning experiences that may effectively improve the success rate in gaining and retaining employment; provide training and assessments to establish and promote an individual’s impact in the workplace; and build employable resumes and cover letters.
• Career Expo: Held each spring on the Main Campus in Galesburg. The expo provides an excellent way to meet potential employers, learn about their organizational needs and see which career is right for you.
• Career Mentoring Program: The Carl Sandburg College mentoring team is dedicated to providing caring mentors to students pursuing their academic careers. Mentor/mentee partnerships are established at the beginning of each semester and continue until the mentee completes his/her semester coursework.
• Federal Work Study program: Allows students to work on campus and earn funds to help meet educational costs. If a student is awarded FWS and wishes to apply for a job, he/she will need to obtain and complete a Federal Work Study application from the Financial Aid Office. The Career Resources Office will then refer the application when positions become available in any departments specified. A job is not guaranteed, and students are not guaranteed to earn their entire award.
• Career Opportunities: Full-time, part-time, summer and temporary vacancies are posted on the Career Resources bulletin board near Room B08 and the Carl Sandburg College website at http://sandburg.edu/life/careerjob-opportunities
• General Career Assistance: Resume/cover letter development as well as mock interview preparation is available.

The Career Resources Office is located in Room B08 on the Main Campus in Galesburg. For more information, contact the coordinator of career resources at 309.341.5246.

Veterans' Advising
The Veterans’ advisor works with veterans and members of the Reserve receiving educational benefits. This counselor provides academic and personal counseling to student veterans, regardless of expected benefits.

Library
The Library supplies a wide variety of traditional and innovative materials and services necessary to support instructional programs. The Library subscribes to research databases accessible via the web at all three campuses. The collection of books, multimedia kits, audiocassettes, and DVDs totals over 30,000 volumes. In addition, the Library has an extensive interlibrary loan program through which materials may be borrowed. Members of the community-at-large may check materials out of the Library upon presentation of appropriate identification.

The Library staff conducts orientation and information literacy sessions to instruct students in the use of the facilities. The Library is open from 7:45 a.m. to 8 p.m. Monday through Thursday and 8 a.m. to 4 p.m. Friday. Holiday and summer hours are posted.

Welcome Center
The Welcome Center is the first stop for new students at the Main Campus in Galesburg. Learn more about what Sandburg has to offer and how to get started as a student. Take a tour of campus and explore the various educational programs. For more information, contact the Welcome Center at welcomecenter@sandburg.edu or 309.345.3500.

College Preparatory Courses
College preparatory courses are offered through the academic departments: Arithmetic Fundamentals, Fundamentals of Algebra, Geometry and Trigonometry Review, Geometry, Reading Improvement, Reading Comprehension, College Survival Skills, English Fundamentals 1, English Fundamentals 2, Foundation for Biology, and Foundation of Anatomy and Physiology. (See course descriptions for specific details.)

College Survival Skills
An important course offered is College Survival Skills. This course instructs students in the fundamental skills necessary to function as college students. Content covers critical reading and thinking, time management, taking notes, studying for tests, and other skills needed for success in college.

Academic Computing Resources
Computer labs and classrooms are located throughout all campuses to help students do research and complete their assignments. The Student Tech Help Desk, located in the library, provides technical assistance.
and support to students. The Tech Help Desk is open 8 a.m. to 8 p.m., Monday through Thursday, and 8 a.m. to 4 p.m. on Friday, and can be reached at 309.341.5446 or help@sandburg.edu

For answers to frequently asked questions and a searchable knowledgebase, students may visit http://help.sandburg.edu

Student Success Center
The Student Success Center, located in E136, houses the following service areas:

TRIO Student Support Services
The TRIO SSS program offers academic support services to students who are planning on transferring to a four-year university and who are either first-generation college students or who are eligible according to the federal income guidelines. The goal of the program is to assist participants to stay in school, graduate from Sandburg, and transfer to a four-year college or university. Participating students are offered academic advising, transfer advising, orientation to college, intensive support during their first year of college, financial aid assistance and planning for four-year college expenses, assistance with study skills, career research and planning, and support with other college-related or personal issues.

In addition to the above, other advantages include an on-site computer lab; scholarship assistance; cultural activities; and a lending program for laptops, calculators, digital recorders, and textbooks.

To apply for this program, stop by the office in the Student Success Center in E136 to complete an application, or call 309.341.5362 for more information. This program is available on the Galesburg campus only. The TRIO SSS program is funded 100% by the U.S. Department of Education.

TRIO Upward Bound
TRIO Upward Bound is a federal program designed to help low-income, first-generation high school students excel in secondary and postsecondary education. Carl Sandburg College was awarded the TRIO Upward Bound grant in the Fall of 1999. Upward Bound serves students who attend Abingdon, Galesburg, Knoxville, and ROWVA high schools. The grant is 100% funded in the amount of $262,500 annually through the Galesburg campus only. The TRIO Upward Bound grant in the Fall of 1999. Upward Bound serves students who attend Abingdon, Galesburg, Knoxville, and ROWVA high schools. The grant is 100% funded in the amount of $262,500 annually through the Galesburg campus only. The TRIO SSS program is funded 100% by the U.S. Department of Education.

To apply for this program, stop by the office in the Student Success Center in E136 to complete an application, or call 309.341.5362 for more information. This program is available on the Galesburg campus only. The TRIO SSS program is funded 100% by the U.S. Department of Education.

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TRIO Upward Bound grant in the Fall of 1999. Upward Bound serves students who attend Abingdon, Galesburg, Knoxville, and ROWVA high schools. The grant is 100% funded in the amount of $262,500 annually through the Galesburg campus only. The TRIO SSS program is funded 100% by the U.S. Department of Education.

Upward Bound provides educational, cultural, and social services to program participants throughout the year. Students are provided information and advising in various academic skills, as well as in the areas of postsecondary education and career exploration. During the summer, students are provided instruction in math, lab science, foreign language, and composition and literature. Students have available resources such as laptops, calculators, and stipends, and have the opportunity to participate in various program trips and activities. For more information on the program, application, and/or selection process call 309.341.5268.

Academic Support Office
Conveniently located in the Crist Student Center, the Academic Support Office will assist a student’s efforts in successful completion of educational goals by providing a variety of free services to all Carl Sandburg College students:

Disability Support
In compliance with the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Disability Support at Carl Sandburg College seeks to make the classroom equally accessible to students with disabilities by providing students with tools and accommodations intended to remove barriers imposed by their unique disabilities. Documentation of the specific disability is required. If you are a student with a disability who would benefit from these services, contact the Coordinator of Academic Support, Main Campus in Galesburg, Room B68, 309.341.5262.

Assistive Technology Lab
An on-campus computing option available to students with disabilities. The lab computers have various accessibility software programs installed for those who require screen magnification, speech recognition and screen readers. Main Campus in Galesburg, Room B64.

Tutoring Services
Carl Sandburg College tutoring is a fantastic, free resource for all Carl Sandburg College students. Through tutoring, our goal is to provide friendly, accessible academic assistance in all subject areas. Students interested in any tutoring resources should visit the Tutoring Center in room B72 for more information.

The Tutoring Center
The Tutoring Center, located in B72, is the place to go for help with all your core classes, from math and science to writing, Spanish, and general study skills. Tutoring is available primarily on a walk-in basis, though students can call ahead to schedule an appointment.

Tutoring sessions are casual interactions that are student-initiated, student-centered, and student-driven. Students often come for clarification, extra practice, brainstorming and planning, or guidance on their homework. Tutoring is not a homework correction service, nor is it a service only for students who are struggling in their classes; rather it should be seen as an educational opportunity: additional instruction that enables students to work on their own with more confidence.

Satellite Tutoring Services
Tutoring is available at Carl Sandburg College’s branch campus in Carthage and the Extension Center in Bushnell. Students looking for more information can drop by the main office or call (217) 357-3129 (Carthage) or (309) 772-2177 (Bushnell). Students should check posted hours as they are likely to change from semester to semester.

Online Tutoring
Available 24/7 and free to students, online tutoring via tutor.com (http://tutor.com) provides real-time assistance in math, writing, science, American history, career development and business. This service can be accessed via the quicklinks on www.sandburg.edu or under the student tab in mySandburg. For questions about online tutoring call the Coordinator of Academic Support, Main Campus in Galesburg, Room B68, 309.341.5262.

Intensive Tutoring
Students wishing for assistance beyond what is offered at the Tutoring Center or who are unable to utilize the Tutoring Center can request a more structured tutoring option. With intensive tutoring, a student or a group of students can meet up to twice a week with an assigned tutor to work on the specified subject. Appointments are approved based on student need, availability of funds and availability of qualified tutors. For more information, talk to your instructor or contact the coordinator of academic support, Main Campus in Galesburg, Room B68, 309.341.5262. Carthage students can contact Ellen Henderson-Gasser to make arrangements: Room 1, 217.357.3129 ext. 7247. Bushnell
students can contact Linda Thomas to make arrangements: Room 220, 309.772.2177 ext. 8243.

The Carl Sandburg College Testing Center administers the following tests: COMPASS (placement testing for incoming students); TEAS (pre-admissions tests for Nursing); extension and correspondence tests; online Internet tests; telecourse tests, and make-up tests for Sandburg faculty. The College is also a testing site for the ACT (American College Test), CLEP (College Level Examination Program), and GED (General Education Development) tests. Registration information and test schedules are available from the Office of Student Services or the Testing Center Coordinator. Special testing procedures to accommodate persons with documented disabilities are provided in compliance with Section 504 and ADA. Contact the Testing Center Coordinator, Room B07, or call 309.341.5323 for further information.

Cultural Life and Activities

Student Publications

The College provides students with opportunities for writing, editing, and print production through the literary magazine, Phizzogs. Any student interested in working on a publication staff should contact the Student Services Office.

Theater, Music, and Art

Carl Sandburg College's fine arts facility consists of well-equipped studios, rehearsal and recital rooms, and an intimate 180-seat theater.

Sandburg Theatre produces at least two main stage productions each year, as well as a showcase of scenes from the acting and directing classes. Delta Psi Omega Theatre Honor Society, also known as Drama Club, assists with our campus productions and travels to other colleges in educational exchanges. In the exchanges, we see other college productions and interact with their students and faculty. DPO also performs student-written and directed scenes and hosts an annual induction ceremony for new members. Participation in all theatre activities is open to all Sandburg students.

The music department offers many opportunities for students from all majors. Large and small choirs present multiple concerts each semester for both campus and community, and the Galesburg Community Chorus performs a major work each semester. Opportunities for instrumentalists include the Sandburg Jazz Combo and Knox-Sandburg Community Band, and both groups perform regularly each semester. Music groups regularly attend area concerts, shows, and often take longer performance and cultural trips. Participation in music ensembles is open to all students, staff, faculty, and community members.

The fine arts department at Carl Sandburg College offers classes that are accessible for all levels of experience. Events like the Art Institute of Chicago fieldtrip and the student art show are open to any interested student. Art majors are encouraged to become involved in gallery or collection conservation work through the department. Every art student is given opportunities to exhibit work in a variety of venues, on- and off-campus, including our new Lobby Gallery. Sales of student art work are always encouraged. Additionally, the department sponsors exhibits of the work of professional artists from across the region; often these artists will give gallery talks or studio demonstrations, providing additional resources for students.

Intercollegiate Athletics

Carl Sandburg College is a member of the National Junior College Athletic Association (NJCAA) Division II and the Arrowhead Athletic Conference. Student athletes compete in the sports of men’s baseball, basketball, cross country, golf, and soccer; and women’s basketball, cross country, golf, softball, and volleyball.

Each home game is a chance to come out and cheer on your Sandburg Chargers. All students receive free admission to home sporting events. There is a student section to cheer on the Chargers to victory, along with frequent interactive activities. Check out your Chargers’ schedules and meet the athletes at www.sandburg.edu/athletics.

Student Life

The Office of Student Life provides out-of-classroom experiences that compliment your academic program. Student Life oversees student events, organizations, and the Student Government Association. Don’t see what you’re looking for? Contact the Student Life Coordinator today to see about starting your own movement. Call 309.341.5332 or visit our website at www.sandburg.edu/life/student-life.

Student Organizations

Student organizations are a great way to get involved on campus, meet new people, give back to our community, and have a great time! Student organizations may focus on academics, community building, entertainment, and campus improvement. For a complete listing of student organizations please visit our website at www.sandburg.edu/life/student-life.

Student Government Association

The Student Government Association (SGA) is the officially recognized student governance body for Carl Sandburg College. SGA is a liaison between students and Sandburg, governs student organizations, and promotes events on campus. It is composed of 15 elected representatives and five executive officers. Elections are held each Fall semester. Applications are on our website www.sandburg.edu/life/student-life or pick one up at the Student Life Office in the Student Center, office B56.

Want to be a Student Leader?

• Gain experience in organizational leadership
• Build your resume and university application
• Leave your mark on Sandburg
• Attend SGA conferences and socials

Programming Board

The Programming Board is a group of students who assist in programming events, festivals, lecture series, and other various activities. Check out the website at www.sandburg.edu/life/student-life for a listing of yearly events on campus. Do you have an idea for an event or activity on campus? Contact the Student Life Coordinator, 309.341.5332.

Phi Theta Kappa

The Chi Kappa chapter of Phi Theta Kappa, the international honor society for two-year colleges, is committed to recognizing outstanding scholarship and to assisting its members in obtaining academic scholarships and job opportunities, while fostering leadership and personal achievement. The organization offers several national scholarships, as well as opportunities to be nominated for additional
honors, such as membership on the society’s Academic All-American Team. To become a member, students must be currently enrolled and must have a grade point average of at least 3.5 after a minimum of 12 hours of course work leading to an associate’s degree. Contact 309.341.5219.

Bookstore

The Carl Sandburg College Bookstore is located in the Instructional Computer Student Center in the B Building. The Sandburg Bookstore is a friendly place where the student may purchase textbooks for classes. Textbooks may also be purchased online or reserved at cscbookstore.net (http://www.cscbookstore.net). Textbooks are available for sale online and in the store three weeks prior to the start of classes. The bookstore offers a textbook rental program in which selected titles are rented for the semester. The bookstore also sells e-books as selected by the instructors. The bookstore’s normal hours of operation are Monday through Thursday, 8:30 a.m. to 6 p.m., and Friday, 8:30 a.m. to 1 p.m. The bookstore offers extended hours during each semester rush and buyback; these hours will be posted throughout the campus and on our Web site. The bookstore will be closed as the College dictates due to severe weather conditions, etc., and any College-observed holidays.

The bookstore is a licensed Microsoft reseller and offers academically priced software to Carl Sandburg College students. In addition to standard school supplies, the bookstore also carries required supplies for art and photography courses. For the student in the medical field, the bookstore offers a selection of quality clothing, accessories, and supplies at an affordable student price. The bookstore also stocks a variety of non-textbook merchandise needed for other classes, such as jump drives, headphones and goggles, as well as greeting cards, stamps, and a variety of imprinted Sandburg clothing and gifts.

Students who have applied for and have been awarded financial aid and who have Pell, SEOG, IIA, and some scholarships may be able to charge their purchases in the bookstore, using the balance of these funds after all tuition and fees are charged off the account. Book charge dates are posted at the bookstore and on our Web site.

Full Refund Policy

Textbook returns will follow in accordance with Carl Sandburg College refund policies for tuition refunds. The textbook must be returned with a receipt in the same condition as purchased for a full refund. Textbooks that are shrink-wrapped must be returned with the shrink-wrap intact for a full refund. Textbooks that have been unwrapped will be refunded at a used textbook price. If the textbook is defective, it is the student’s responsibility to return it immediately to the bookstore for an exchange.

Computer software and electronics may NOT be returned or exchanged if the package is opened.

Please note: It is the student’s responsibility to provide a receipt. All returns and exchanges must be accompanied by a receipt regardless of the form of payment (cash, check, credit card, or financial aid).

Buyback Policy

At the end of each semester, during Finals Week, the bookstore will hold a buyback session in which textbooks in good saleable condition, i.e., no water-damaged books, books must have covers and pages intact, and any CD or diskettes must accompany the textbook if they were purchased with it. The bookstore will pay up to 50% of the selling price for textbooks that have been ordered by an instructor for the upcoming semester. Once a determined quantity of books has been purchased at the 50% price, additional books will then be purchased for a wholesale book company at their price. Any other current edition textbooks that are not needed by the bookstore will be purchased by the wholesale book company at their price. The exact dates and times of the buyback will be posted a week prior to finals.

Special Orders

The bookstore offers special ordering for any textbooks, trade books, and other items that may not be in stock. Please ask the staff about special ordering an item that is not on the shelf.

Parking Regulations

The College has five large parking lots. Parking is provided free. No parking is allowed on the sides of the entry roads, in fire lanes, or on lawn areas. Tickets will also be issued for taking up two parking spaces and for parking over the lines taking up two parking spaces. Tickets will be issued for violation of these parking rules. In addition, each parking lot has parking spaces designated for handicapped parking. Unauthorized use of these parking places will result in a $500 fine in accordance with paragraph 11-1301.3 of the Illinois Vehicle Code.

The Risk Management Committee of the College has been charged with the responsibility of serving as the Appeals Board for persons issued a parking violation. This committee meets each month and its membership is comprised of students, faculty and staff. Parking violation fines must be paid within ten (10) days. Appeals may be made only AFTER the fine has been paid. Appeal forms may be picked up in the Business Office.

Policy on Tobacco-Free Campus

The use of tobacco is prohibited inside any building or vehicle owned, leased or used by the College. Tobacco shall mean cigarette, cigar, pipe or tobacco in any other form, including smokeless tobacco which is any loose, cut, shredded, ground, powdered, compressed or leaf tobacco that is intended to be placed in the mouth without being smoked. (Policy No. 2.16)

Student Rights and Responsibilities

Carl Sandburg College recognizes that students are citizens as well as members of an academic community. As a citizen, each student has the freedom of speech, assembly, association, the press, and the rights of petition and due process which are guaranteed by the state and federal constitutions. As a member of an academic community, students have the right and responsibility for participating in the formulation and review of all-college regulations and policies directly affecting them. Upon enrolling in the College, each student assumes an obligation to conduct himself/herself in a manner that is compatible with the College’s function as an educational institution. If this obligation is neglected or ignored by the student, the College must, in the interest of fulfilling its function and meeting its total obligations, institute appropriate disciplinary action as outlined in the Carl Sandburg College Policy, Regulation and Procedure Manual.

Academic Dishonesty

Students enrolling at Carl Sandburg College are responsible for learning what constitutes academic dishonesty. Carl Sandburg College defines the first three acts of academic dishonesty as proposed by Gary Pavela* (Kibler, et al, 1988, p. 1), the fourth is from Stony Brook University Library Research Guide** (SBU Library Research Guide, 2004).
Cheating — Intentionally using or attempting to use work that is not your own, unauthorized materials, information or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.

Fabrication — The intentional and unauthorized falsification or invention of any information for citation in an academic exercise.

Facilitating academic dishonesty — Intentionally or knowingly helping or attempting to help another violate a provision of the institutional code of academic integrity.

Plagiarism — Presenting the words or ideas of someone else as your own without proper acknowledgement of the source.

The penalties for academic dishonesty may be severe. Students are advised to contact their instructors for policy clarification for a specific class.


** Framework for Addressing Student Concerns, Grievances, and Discrimination

Should the student have a concern or a complaint — an issue believed to have an adverse effect upon the student, someone else, or a group of students — the student may work to address that problem by first bringing the issue to the attention of the person(s) against whom the complaint is directed. Should resolution not be reached at that level, the issue must be presented, within ten school days of the issue in question, to the immediate supervisor of the person against whom the complaint is directed or to a Student Services Counselor who will, in a timely fashion, direct the student to the appropriate supervisor and then to the appropriate vice president. If no resolution is reached at the vice president's level, the student may appeal to the President of the College. All decisions, notification of decisions and reasons for decisions shall be in writing.

** Student Harassment and Sexual Harassment

It is the policy of the College to maintain a learning environment that is free from harassment based on a student's sex, color, race, religion, creed, ancestry, national origin, physical or mental disability, sexual orientation, or other protected group status. The College prohibits any and all forms of the above-mentioned harassment.

It shall be a violation of the College's policy for any "College Representative," "College Personnel," or "Third Parties" as defined by this policy to harass a student as defined herein or to tolerate harassment or sexual harassment because of a student's sex, color, race, religion, creed, ancestry, national origin, physical or mental disability, sexual orientation, or other protected group status.

** Health Services

Students who become ill or need emergency medical treatment may seek help at St. Mary Medical Center and Cottage Hospital, both in Galesburg. The College assumes no responsibility for medical treatment of students and has no facilities or professional staff for emergency treatment of ill students.

** Crime Awareness and Public Safety

Preface

In response to the Crime Awareness and Campus Security Act of 1990 requiring all postsecondary institutions to prepare an annual report detailing crime prevention on policy and campus crime statistics, Carl Sandburg College has issued its Crime Awareness and Campus Security Report showing data for calendar years 2009, 2010 and 2011.

This annual report features Carl Sandburg College policies regarding crime prevention issues, services performed by the college, anti-crime information available through the college, crime statistics and prescribed standards of conduct as set forth by the policies of the Board of Trustees.

Public Safety

Carl Sandburg College provides for safety and security needs of staff, students and visitors through the public safety officers, who are on site 24 hours per day, 365 days per year.

Any person who witnesses a crime or becomes a victim of a crime should report it as soon as possible to Campus Security. For emergencies, Public Safety can be reached from any on-campus/college phone simply by calling the campus dispatch (Dial - 5499). For non-emergencies, Public Safety may be reached 24 hours a day by dialing 0 from any campus phone or 309.341.5304. Questions about safety, security or law enforcement issues should be referred to the director of public safety, located in the D-201, or call 309.341.5325.

The director of public safety receives all incident/accident reports filed by any individual of the college community. When multiple incidents occur during the same time frame, reports and subsequent action by public safety officers are handled in order of priority: 1) personal safety; 2) property crime; 3) services.

Emergency Phone System

Carl Sandburg College's Emergency Telephone System is now in place. The system consists of eleven (11) outside emergency telephones located in parking lots across campus and fifteen (15) inside emergency telephones located in the College buildings across campus.

All emergency telephones on campus are connected to the College dispatch center. The dispatch center is staffed 24 hours a day, Monday through Sunday.

If the caller is unable to respond verbally, the boxes are a one-button system enhanced by location ID. All emergency telephones will ring directly to the Campus Dispatch Center.

This system is for emergencies only or when you need Public Safety assistance. This would include medical emergencies, accidents, reporting a fire, or request for escorting of students. This system is not for general information on campus activities or directions. Every classroom has an in-house telephone that can be used to reach the Public Safety Building by dialing 911. Any situation that requires a call to the Public Safety Building should be reported to Campus Security by dialing 5499.

Any abuse or violation of the Emergency Telephone System will lead to disciplinary action, arrest, or prosecution.
Facility Access

The facilities of this college are provided by the State of Illinois and the Carl Sandburg College District to provide a service to this college community. The service includes not only the instructional program, but a public service beyond that normally called instruction. The facilities of the college may be used by other groups and organizations for such purposes that will extend and enhance the general welfare of the total community.

Carl Sandburg College’s Galesburg campus is open from 7 a.m. to 10 p.m. Monday through Thursday and 7 a.m. to 6 p.m. Friday, excluding declared holidays. During closed periods, all exterior doors are locked to prohibit unauthorized entry. Faculty and staff may enter after hours by making prior arrangements with their supervisor and/or Campus Security. Student access to facilities after hours is prohibited unless they have the expressed permission of a college employee and Campus Security has been notified.

Public Safety utilizes motor and foot patrol as well as two-way radio/telephone communications to monitor the premises both inside and out. Campus Security utilizes CCTV across campus, and they are monitored 24/7, 365 days a year.

Enforcement Policies

The Board of Trustees of Community College District #518 has employed Campus Security personnel which report to the Coordinator of Environmental Services. Their primary purpose is to monitor and maintain the security of college assets and personnel by observing, reporting and then acting within the framework of established procedures.

In this capacity, public safety officers facilitate conservation of the peace by working harmoniously with all local law enforcement agencies. In the event of classroom/student and/or other college-business related emergency, college personnel are instructed to remove themselves from dangerous situations. If the immediacy of the situation requires, college employees will call the proper emergency facility by dialing 911 from the nearest college phone.

Public safety officers do not possess any of the powers of sheriffs in counties or policemen in cities. Carl Sandburg College resides within the city limits of the City of Galesburg and, therefore, refers all matters appropriate to their jurisdiction/authority to the Galesburg Police Department. Public safety officers are not authorized to carry or use weapons in the performance of their duties.

Information Programs

Carl Sandburg College endeavors to reduce the likelihood and opportunity for unsafe activity on campus through a proactive risk management program involving all campus constituencies.

The College maintains a substance abuse awareness program to inform students and employees about the dangers of substance/alcohol abuse, college policy of maintaining a substance/alcohol-free environment, available abuse counseling and rehabilitation assistance programs, and the penalties that may be imposed upon students and employees for violations occurring in the college.

Students and employees are encouraged to be responsible for their own security.

Written literature on all aspects of the Crime Awareness and Campus Security Act of 1990 is available in the Office of the Coordinator of Environmental Services.

Crime Statistics

Carl Sandburg College provides crime statistics involving murder, rape, robbery, aggravated assault, burglary, motor vehicle theft, arrests for liquor, drug and weapons violations in accordance with the Crime Awareness and Campus Security of 1990.

All incidents of a criminal nature occurring at off-campus facilities are reported to that facility’s local law enforcement agency.

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<th>Crime</th>
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NOTE:
No Residence Halls on or off campus.

Any questions about the Crime Statistics or safety issues on Carl Sandburg College can be directed to the director of public safety at 309.341.5325.

Standards of Conduct

College policy and regulations prohibit:

1. The illegal use of controlled substances, as well as their manufacture, distribution, dispensation, or possession on Carl Sandburg College property or as any part of college activities, events, classes, programs or services.
2. The sale of tobacco on college property.
3. The illegal use or abuse of alcohol by students, visitors, or employees on Carl Sandburg College property or activities.
4. Use of tobacco products in the building is prohibited.

**Disciplinary Actions**

College policy further stresses that:

1. Upon enrolling in the college, each student assumes an obligation to conduct himself or herself in a manner that is compatible with the college’s function as an educational institution. If this obligation is neglected or ignored by the student, the college may institute appropriate disciplinary action as outlined in the Carl Sandburg College Policies and Regulations Manual.

2. Where emergency situations occur, the administration shall be authorized to undertake reasonable and appropriate measures to correct and control potential dangers.

3. The college administration shall strive to maintain a drug-free campus for all college employees and students.

Procedures for on-campus disciplinary action are addressed in this Carl Sandburg College Academic Catalog under the framework of "Student Concerns, Grievances, Sexual Harassment and Discrimination." This section is always updated for proper care and counseling of students and personnel in the area of forcible and non-forcible sexual assault and other cases of sexual harassment. In addition, disciplinary action is also outlined in the Carl Sandburg College Policies and Procedures Manual.

**Summary**

Every effort has been made to provide you with information of value in assisting you in sharing responsibility for your personal safety while on campus. We urge you to contact the Director of Public Safety should you have any questions regarding this material or any safety issue. Policies adopted by the Board of Trustees in compliance with the Crime Awareness and Campus Security Act are available from: Secretary, Board of Trustees, Community College District #518, Henson Administrative Center, 2400 Tom L. Wilson Blvd., Galesburg, IL 61401.
Business & Community Education

The Business and Community Education department of Carl Sandburg College provides workshops, classes, trips, and events to inspire learning that enriches lives both professionally and personally. Programs are designed to attract everyone with a desire to learn, regardless of previous academic experience or career path. The following services are designed to promote life-long learning from young children to senior citizens. Current course schedules can be viewed online at www.sandburg.edu/bce.

Business Education

- Professional Development
- Online Training
- Customized Training

Community Education

- Personal Enrichment
- Plus 50 Life-Long Learners
- Kids on Campus

For More Information Contact
Director of Business & Community Education
Galesburg Main Campus
CME - Building G
2051 Tom L. Wilson Blvd.
Galesburg, IL 61401
309.341.5469

Business Education

The Carl Sandburg College Business & Community Education (B&CE) department serves as the primary contact for all inquiries from the business and industrial community. The B&CE staff will assist businesses of any size, analyze their needs, and will arrange appropriate college services, i.e., credit classes, non-credit classes, seminars, workshops, technical support, on-site training programs or customized training. Applications for training grants may also be initiated and coordinated through the B&CE Office, if available.

B&CE functions as the economic development arm of the College. It is the liaison between the College, numerous governmental agencies, associations, and private business in the development of projects/programs designed to promote and expand the economy of West Central Illinois.

The B&CE department is located at the Center for Manufacturing Excellence (CME) Building G on the main campus. Most professional development courses, workshops, and seminars are held at this location for the northern portion of the College district. B&CE classes at the CME Building G include: computer technology, professional development, special seminars, industrial safety and quality-related programs. B&CE business classes and economic development assistance for the southern and eastern portions of the district are available through the Business and Community Education Coordinator located at The Extension Center in Bushnell and serving The Branch Campus in Carthage.

For More Information Contact
Director of Business & Community Education
Galesburg Main Campus
CME - Building G
2051 Tom L. Wilson Blvd.
Galesburg, IL 61401
309.341.5469

Plus 50 Life-Long Learners

Special short-term courses are designed for those area residents who are age 50 and older. All programs are minimal cost and do not require homework, tests or grades. Program formats include: seminars, workshops, day tours, educational travel and classes of varying lengths and number of sessions. Subjects or topics are both interesting and informative for life-long learners. Plus 50 life-long learners are encouraged to recommend new program ideas.

For More Information Contact
Director of Business & Community Education
Galesburg Main Campus
CME - Building G
2051 Tom L. Wilson Blvd.
Galesburg, IL 61401
309.341.5469

Community Education Office

The Community Education classes are developed based on input from community members regarding their interest and needs. Classes are held at various locations throughout the district and range from occupational retraining classes to non-credit general interest classes for personal growth and enjoyment. Cooperative programs with civic and community organizations are periodically scheduled.

Program offerings are developed throughout the year and advertised through the quarterly Business & Community Education schedule. Detailed class information is available online at www.sandburg.edu/bce. Classes and seminars are designed for various age and interest groups. A separate program series is offered for those Carl Sandburg College district residents who are age 50 and older. Specialty programs for youth are also offered during summer camps and periodically during the academic year. Suggestions and ideas are always encouraged and should be given to the appropriate Community Education Office listed below.

For More Information Contact
Community Education Office
Galesburg Main Campus
CME - Building G
309.345.3501 or 309.345.3502

Kids on Campus

A summer program for area youth is offered through both the Galesburg and Carthage campuses. Various short-term programs for youth are also offered by all three campus locations during the academic year. Topics are designed to be interesting, challenging, and age-appropriate for elementary, middle, and high school youth. Summer
program flyers are distributed to area schools in April or May each year. Additional information for youth programs is listed in the Business & Community Education schedule. Look for current offerings online at www.sandburg.edu/bce. Some limited course offerings are designed for home-schooled youth.

For More Information, Contact
Director of Business & Community Education
Galesburg Main Campus
CME - Building G
2051 Tom L. Wilson Blvd.
Galesburg, IL 61401
309.341.5469
The Adult Learning Center (ALC)

Adults can prepare for the GED exam, improve basic literary skills, or study English as a Second Language at the Galesburg campus and other locations throughout the district, including The Branch Campus in Carthage and The Extension Center in Bushnell.

The Learning Center classes help students acquire basic computer skills and transition to college when appropriate. The staff will be glad to advise students about transportation, child care and other available support services.

For More Information Contact
The Learning Center Coordinator
Galesburg Campus at Sandburg Mall
309.344.1631

OR

Adult Education and Literacy Coordinator
The Branch Campus
305 Sandburg Dr.
Carthage, IL 62321
217.357.3129, ext. 7245

OR

Adult Education and Literacy Coordinator
The Extension Center
380 East Main St.
Bushnell, IL 61422
309.772.2177, ext. 8241

Carl Sandburg College Literacy Coalition

The Carl Sandburg College Literacy Coalition offers one-on-one and small group tutoring for adults who need to improve basic literacy skills. A student support group also provides encouragement for literacy students. Literacy tutor training prepares volunteers interested in helping adults with reading, math, citizenship, writing, spelling, and ESL (English as a Second Language). Family literacy activities are conducted throughout the district for parents and children. The Literacy Coalition’s offices are located at the Learning Center in Galesburg at Sandburg Mall and at The Branch Campus in Carthage and The Extension Center in Bushnell.

For More Information Contact
Galesburg Campus
at Sandburg Mall
309.344.1631

Branch Campus
217.357.3129, ext. 7245

Extension Center
309.772.2177, ext. 8243

Bright Futures

Bright Futures is a cooperative venture of the following: Carl Sandburg College; the Abingdon, Galesburg, Knoxville, ROWVA and Williamsfield school districts; and the Community Child Care Resource and Referral. These organizations provide services to families, teachers, care givers and young children. This support system includes parent-child activities, home visits to new parents, parenting classes, child care provider workshops, a resource center and toy lending library. Anyone residing within the college district is welcome to use most of these support services with few limitations. Most services are provided at no cost to participants.

For More Information Contact
Bright Futures
932 Harrison St.
Galesburg, IL 61401
309.342.5582
The Branch Campus - Carthage, Illinois

The Branch Campus is located on the north edge of Carthage just off Highway 94. This satellite location serves the communities, businesses, organizations, and school districts in Hancock County and a portion of McDonough County in western Illinois. The full service campus provides baccalaureate, career, community education, and general study programs. Some popular career and technical programs offered at The Branch Campus include medical assisting, criminal justice, accounting, business, and administrative office programs. Adult basic and secondary education are also offered at the Carthage location. Students also have access to a wellness room for exercise, and lounges for study and relaxation between classes.

Students receive individualized attention for academic advising, career counseling, and financial aid planning in a relaxed, friendly educational atmosphere. Tutoring and academic support services are also available. Seminars, workshops, and customized training for business and industry are also available.

For More Information Contact
Dean of Extension Services
305 Sandburg Dr.
Carthage, IL 62321
217.357.3129, ext. 7239

The Education Commons

Opened in 1998, the Education Commons houses the Medical Careers Lab serving a variety of academic programs in the medical field; a large instructional computer lab for a variety of business and computer classes; and a lounge for students and faculty. Other offerings in the facility also include community education and Kids on Campus programming, senior workshops, and dual credit coursework for local high school students. The Illini West High School superintendent's offices also are located in the facility.

For More Information Contact
Education Commons Main Office
641 Buchanan St.
Carthage, IL 62321
217.357.3380

Business & Community Education

Business & community education opportunities are also available at the Branch Campus in Carthage. Offerings include customized classes for business and industry; programming for children, including the popular Kids on Campus program in Carthage every summer; workshops and trips for plus-50 lifelong learners; and community education courses for occupational training or courses for personal growth and interest. Suggestions for programming are always welcome from the community.

For More Information Contact
Director of Extension Services
305 Sandburg Dr.
Carthage, IL 62321
217.357.3129, ext. 7241
The Extension Center - Bushnell, Illinois

The Extension Center is located at 380 East Main Street in Bushnell and has served the southeast portion of the Sandburg District #518 since 1995. The Extension Center more than doubled the classroom space with the completion of an expansion project in the fall of 2003. The facility houses several classrooms, a large computer lab, a wellness room for exercise, a student lounge, and service offices for registration, business services, and bookstore. This facility provides basic class offerings for baccalaureate, general study programs, career and vocational degrees or certification, as well as community education and personal enrichment classes. Students can earn an Associate in Art or Associate in Science degree at the Bushnell Extension Center, as well as a variety of certificate and associate degree programs in the Career, Technical, and Health Education area, including medical assisting, criminal justice, and a variety of business, accounting, and administrative office programs. In addition, this facility offers adult basic and secondary education classes with tutoring available. Individual academic and career counseling are provided in a professional atmosphere that is both friendly and relaxed. Smaller class sizes provide students the opportunity for more individualized attention. A variety of seminars, workshops, continuing education and customized training for business and industry are coordinated at the facility.

For More Information Contact

Director of Extension Services
380 East Main St.
Bushnell, IL 61422
309.772.2177, ext. 8243

Business & Community Education

Business & community education opportunities are also available at the Extension Center in Bushnell. Offerings include customized classes for business and industry; programming for children; workshops and trips for plus-50 lifelong learners; and community education courses for occupational training or courses for personal growth and interest. Suggestions for programming are always welcome from the community.

For More Information Contact

Director of Extension Services
380 East Main St.
Bushnell, IL 61422
309.772.2177, ext. 8243
Degrees, Programs, and Certificates

University Studies

A wide variety of programs leading to degrees and certificates is offered by the College to serve a variety of student needs. Students needing assistance in selecting an appropriate program for their career goals are advised to meet with a counselor.

Associate in Arts,
Associate in Science,
Associate in Science
(Agriculture),
Associate in Fine Arts
(Art, Music Performance, or Music Education),
(Transfer Degrees)

The Associate in Arts (AA), Associate in Science (AS), Associate in Science (Agriculture), or Associate in Fine Arts (AFA) degree is for those students planning to transfer to a senior college or university to earn a Baccalaureate degree.

Transfer Information

Associate and baccalaureate degree-granting institutions are equal partners in providing the first two years of baccalaureate degree programs in Illinois. While each institution is ultimately responsible for the quality of the programs it provides, both associate and baccalaureate degree-granting institutions are expected to work together to assure that their lower-division baccalaureate programs are comparable in scope, quality, and intellectual rigor.

Any student admitted in transfer to an Illinois baccalaureate degree-granting institution should be granted standing comparable to current students who have completed the same number of baccalaureate-level credit hours and should be able to progress toward baccalaureate degree completion at a rate comparable to that of students who entered the baccalaureate institution as first-time freshmen. To assure students of comparable treatment, it is expected that:

1. Students admitted in transfer who have earned an Associate in Arts or an Associate in Science degree from a regionally accredited Illinois community or junior college whose general education requirement for the degree incorporates the Illinois General Education Core Curriculum will have met the receiving institution's all-campus, lower-division general education requirement for the baccalaureate degree (or a second associate degree). A receiving institution may, however, require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement that is beyond the scope of the Illinois General Education Core Curriculum.

2. Students admitted in transfer who have satisfactorily completed the Illinois General Education Core Curriculum at any regionally accredited Illinois college or university prior to transfer should be granted credit in lieu of the receiving institution's all-campus, lower-division general education requirement for an associate or baccalaureate degree. A receiving institution may, however, require admitted transfer students to complete an institution-wide and/or mission-related graduation requirement that is beyond the scope of the Illinois General Education Core Curriculum.

3. Students admitted in transfer who have satisfactorily completed courses within the Illinois General Education Core Curriculum at a regionally accredited Illinois college or university should be granted credit towards fulfilling the receiving institution's comparable all-campus, lower-division general education requirement.

4. Students admitted in transfer who have met program entry requirements and have satisfactorily completed courses described in an Illinois Articulation Initiative Baccalaureate Major Curriculum Recommendation at a regionally accredited Illinois college or university should be granted credit towards fulfilling the receiving institution's comparable lower-division requirements for that specific major. Where admission is competitive, completion of a Baccalaureate Major Recommendation does not guarantee admission.

AAS and Certificate Programs

Career, Technical, & Health Education (CTHE) programs are available as a Certificate, which may be completed in as little as nine months, or as an Associate in Applied Science degree, which may be completed in as little as two years. This specialized approach to education results in graduates who enter the job market with highly marketable skills and backgrounds. The courses that you take in our CTHE programs were selected based upon recommendations from professionals working in specific CTHE fields.

Statement on General Education

The Higher Learning Commission believes that quality undergraduate higher education involves breadth as well as depth of study. According to the HLC commission statement, "General education is intended to impart common knowledge and intellectual concepts to students and to develop in them the skills and attitudes that an organization's faculty believe every educated person should possess."

A general education curriculum provides an opportunity for students to acquire some breadth of knowledge, proficiency in skills that are deemed to be commonly shared by those receiving a college education, and allow students to gain exposure to and competence in pursuit of intellectual inquiry and the examination of personal, social, and civic values.

At Carl Sandburg College we are committed to the centrality of general education by including an appropriate component of general education coursework in all of the Associate in Applied Science degrees as well as many of the certificates. These courses are identified in the catalog description as a general education core or an elective.

NOTE:

Though some CTHE programs will transfer to specific four-year institutions, most will not.

To find out the transferability of a specific CTHE program, talk with your advisor.

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AFA Degree Requirements (p. 46)
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Welding/ TIG Option Gas Metal Arc (p. 108)
University Studies

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Associate in Science,
Associate in Science (Agriculture),
Associate in Fine Arts (Art, Music Performance, or Music Education),
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# AA Degree Requirements

## Associate in Arts Degree

### I. General Education Requirements

#### A. Communications 9

- ENG.101 Freshman Composition 1
- ENG.102 and Freshman Composition 2
- SPE.120 Introduction to Public Speaking

#### B. Humanities/Fine Arts 12

- Select one course from Fine Arts:
  - ART.111 Art Appreciation
  - ART.112 Art: Prehistoric to 1400
  - ART.113 Art: 1400 to Present Day
  - MUS.100 Music in the Western World
  - MUS.101 Introduction to American Music
  - MUS.105 Non-Western Music
  - THE.110 Theatre Arts Appreciation
  - THE.111 Theatre History

- Select one course from Humanities:
  - ENG.160 Introduction to Fiction
  - ENG.170 Introduction to Drama
  - ENG.180 Introduction to Poetry
  - ENG.221 American Literature 1
  - ENG.231 British Literature 1
  - ENG.232 British Literature 2
  - ENG.240 Women's Literature
  - PHL.100 Logic
  - PHL.101 Introduction to Philosophy
  - PHL.102 Ethics

- Select six additional hours from either Humanities or Fine Arts

#### C. Social Sciences 12

- Select four courses from the following:
  (Must select one or more courses from 3 subject areas)
  - ECO.101 Introduction to Economics
  - ECO.201 Principles of Macro Economics
  - ECO.202 Principles of Micro Economics
  - GEO.100 Human Geography
  - GEO.110 World Regional Geography
  - HIS.105 American History to 1877
  - HIS.106 American History from 1877
  - HIS.125 Western Civilization 1
  - HIS.126 Western Civilization 2
  - HIS.285 History of Africa: 1500 to Present
  - POS.122 American Government & Politics
  - POS.223 State & Local Government
  - POS.228 International Relations
  - POS.267 Comparative Government
  - PSY.101 Introduction to Psychology
  - PSY.204 Social Psychology
  - PSY.206 The Social Psychology of Aging
  - PSY.221 Child Psychology
  - PSY.265 Developmental Psychology
  - SOC.101 Introduction to Sociology
  - SOC.102 Contemporary Social Problems
  - SOC.103 Marriage and the Family
  - SOC.105 Intro to Cultural Anthropology
  - SOC.201 Introduction to Anthropology
  - SOC.203 Introduction to Diversity
  - SOC.260 Gender & Society

#### D. Science/Mathematics 10

- Select one course from the following:
  - BIO.101 General Biology
  - BIO.102 General Zoology
  - BIO.103 General Botany
  - BIO.120 Environmental Science
  - BIO.205 Human Biology

- Select one course from Physical Sciences:
  - CHM.100 Concepts of Chemistry
  - CHM.110 General Chemistry I
  - ESC.100 Introduction to Earth Science
  - PHY.130 The Physical Universe
  - PHY.151 General Physics I

- Math 3

- Select one course from the following:
  - MAT.109 Concepts of Mathematics
  - MAT.112 Math for Elementary Teaching 2
  - MAT.131 Finite Mathematics
  - MAT.132 Calculus for Business Or Social Science
  - MAT.210 Statistics
  - MAT.240 Calculus With Analytic Geometry 1
  - MAT.241 Calculus With Analytic Geometry 2
  - MAT.242 Calculus With Analytic Geometry 3
  - SSC.120 Statistics for Social Science (One or the other, but not both.)
  - or MAT.110 General Education Statistics

### II. Electives 18

### III. Other Requirements 3

Human Relations Course — Select one course from the following:

- ART.111 Art Appreciation
- ART.113 Art: 1400 to Present Day
- ENG.160 Introduction to Fiction
- ENG.170 Introduction to Drama
- ENG.180 Introduction to Poetry
- ENG.221 American Literature 1
- ENG.222 American Literature 2
- ENG.250 African American Literature
- GEO.100 Human Geography
- GEO.110 World Regional Geography
- HIS.125 Western Civilization 1
- HIS.126 Western Civilization 2
- HIS.285 History of Africa: 1500 to Present
- MUS.100 Music in the Western World
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUS.101</td>
<td>Introduction to American Music</td>
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<td>MUS.105</td>
<td>Non-Western Music</td>
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<tr>
<td>MUS.200</td>
<td>Music History &amp; Literature</td>
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<tr>
<td>PHL.102</td>
<td>Ethics</td>
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<td>PHL.103</td>
<td>Biomedical Ethics</td>
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<td>PSY.204</td>
<td>Social Psychology</td>
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<td>Introduction to Sociology</td>
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<td>Introduction to Diversity</td>
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<tr>
<td>SOC.260</td>
<td>Gender &amp; Society</td>
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<tr>
<td>SPE.110</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>THE.110</td>
<td>Theatre Arts Appreciation</td>
</tr>
</tbody>
</table>

Residency Requirement — (Complete 15 semester hours at Sandburg)

GPA Required for Graduation — 2.0 on 4.0 scale

**Total Hours Required For Degree** 64

* grades of "C" or better required for both courses
** at least one course must be a lab course
# AS Degree Requirements

## Associate in Science Degree

### I. General Education Requirements

<table>
<thead>
<tr>
<th>Category</th>
<th>Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
</table>
| **A. Communications** | ENG.101 Freshman Composition 1  
& ENG.102 Freshman Composition 2  
SPE.120 Introduction to Public Speaking | 9 |
| **B. Humanities** | ART.111  
ART.112 Art: Prehistoric to 1400  
ART.113 Art: 1400 to Present Day  
MUS.100 Music in the Western World  
MUS.101 Introduction to American Music  
MUS.105 Non-Western Music  
THE.110 Theatre Arts Appreciation  
THE.111 Theatre History | 9 |
| **C. Social Sciences** | ECO.101 Introduction to Economics  
ECO.201 Principles of Macro Economics  
ECO.202 Principles of Micro Economics  
GEO.100 Human Geography  
GEO.110 World Regional Geography  
HIS.105 American History to 1877  
HIS.106 American History From 1877  
HIS.125 Western Civilization 1  
HIS.126 Western Civilization 2  
HIS.285 History of Africa: 1500 to Present  
POS.122 American Government & Politics  
POS.223 State & Local Government  
POS.228 International Relations  
POS.267 Comparative Government  
PSY.101 Introduction to Psychology  
PSY.204 Social Psychology  
PSY.206 The Social Psychology of Aging  
PSY.221 Child Psychology  
PSY.265 Developmental Psychology  
SOC.101 Introduction to Sociology  
SOC.102 Contemporary Social Problems  
SOC.103 Marriage and the Family  
SOC.105 Intro to Cultural Anthropology  
SOC.201 Introduction to Anthropology  
SOC.203 Introduction to Diversity  
SOC.260 Gender & Society  
BIO.101 General Biology  
BIO.102 General Zoology  
BIO.103 General Botany  
BIO.120 Environmental Science  
BIO.205 Human Biology  
CHM.100 Concepts of Chemistry  
CHM.110 General Chemistry 1  
ESC.100 Introduction to Earth Science  
PHY.130 The Physical Universe  
PHY.151 General Physics 1  
MAT.109 Concepts of Mathematics  
MAT.112 Math for Elementary Teaching 2  
MAT.131 Finite Mathematics  
MAT.132 Calculus for Business Or Social Science  
MAT.210 Statistics  
MAT.240 Calculus With Analytic Geometry 1  
MAT.241 Calculus With Analytic Geometry 2  
MAT.242 Calculus With Analytic Geometry 3  
MAT.260 General Education Statistics  
BIO.101  
BIO.102  
BIO.103  
BIO.120  
BIO.205  
CHM.100  
CHM.110  
ESC.100  
PHY.130  
PHY.151  
MAT.109  
MAT.112  
MAT.131  
MAT.132  
MAT.210  
MAT.240  
MAT.241  
MAT.242  
MAT.260  
| 41 |

### II. Electives

Select three courses from the following:

**Must select one or more courses from 3 subject areas**

Electives

### III. Other Requirements

<table>
<thead>
<tr>
<th>Requirement</th>
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<tbody>
<tr>
<td>ART.111 Art Appreciation</td>
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<td>BIO.120 Environmental Science</td>
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<td>BIO.205 Human Biology</td>
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<td>CHM.100 Concepts of Chemistry</td>
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<tr>
<td>MAT.260 General Education Statistics</td>
<td>3</td>
</tr>
</tbody>
</table>
| BIO.101  
BIO.102  
BIO.103  
BIO.120  
BIO.205  
CHM.100  
CHM.110  
ESC.100  
PHY.130  
PHY.151  
MAT.109  
MAT.112  
MAT.131  
MAT.132  
MAT.210  
MAT.240  
MAT.241  
MAT.242  
MAT.260  
BIO.101  
| 20 |

### Human Relations Course — Select one course from the following:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART.111 Art Appreciation</td>
<td>3</td>
</tr>
<tr>
<td>ART.113 Art: 1400 to Present Day</td>
<td>3</td>
</tr>
<tr>
<td>ENG.160 Introduction to Fiction</td>
<td>3</td>
</tr>
<tr>
<td>ENG.170 Introduction to Drama</td>
<td>3</td>
</tr>
<tr>
<td>ENG.180 Introduction to Poetry</td>
<td>3</td>
</tr>
<tr>
<td>ENG.221 American Literature 1</td>
<td>3</td>
</tr>
<tr>
<td>ENG.222 American Literature 2</td>
<td>3</td>
</tr>
<tr>
<td>ENG.250 African American Literature</td>
<td>3</td>
</tr>
<tr>
<td>GEO.100 Human Geography</td>
<td>3</td>
</tr>
<tr>
<td>GEO.110 World Regional Geography</td>
<td>3</td>
</tr>
<tr>
<td>HIS.125 Western Civilization 1</td>
<td>3</td>
</tr>
<tr>
<td>HIS.126 Western Civilization 2</td>
<td>3</td>
</tr>
<tr>
<td>HIS.127 Western Civilization 3</td>
<td>3</td>
</tr>
<tr>
<td>MUS.100 Music in the Western World</td>
<td>3</td>
</tr>
<tr>
<td>MUS.101 Introduction to American Music</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
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</tr>
<tr>
<td>-------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>MUS.105</td>
<td>Non-Western Music</td>
</tr>
<tr>
<td>MUS.200</td>
<td>Music History &amp; Literature</td>
</tr>
<tr>
<td>PHL.102</td>
<td>Ethics</td>
</tr>
<tr>
<td>PHL.103</td>
<td>Biomedical Ethics</td>
</tr>
<tr>
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<td>SOC.102</td>
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</tr>
<tr>
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<td>Intro to Cultural Anthropology</td>
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<td>Introduction to Diversity</td>
</tr>
<tr>
<td>SOC.260</td>
<td>Gender &amp; Society</td>
</tr>
<tr>
<td>SPE.110</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>THE.110</td>
<td>Theatre Arts Appreciation</td>
</tr>
</tbody>
</table>

Residency Requirement — (Complete 15 semester hours at Sandburg)

GPA Required for Graduation — 2.0 on 4.0 scale

**Total Hours Required For Degree**  64

* grades of "C" or better required for both courses

** at least one course must be a lab course
ASA Degree Requirements

Associate in Science Degree
(Emphasis in Agriculture)

The following curriculum is designed to satisfy the basic lower division requirements for agriculture majors at most senior institutions. The agriculture classes listed below are offered in partnership with the University of Illinois-Urbana/Champaign, through a blend of Internet-based instruction and specially scheduled lab days to complete the agriculture transfer course requirements. Students enrolling in this curriculum are urged to meet with an advisor at the senior institution to review course selections and transfer plans.

Transfer Program between Carl Sandburg College and the College of Agricultural, Consumer and Environmental Sciences (ACES) at the University of Illinois at Urbana-Champaign.

General Information This Curriculum Guide outlines a set of required and recommended courses that may guide students at Carl Sandburg College interested in completing a Bachelor’s Degree at the College of Agricultural, Consumer and Environmental Sciences (ACES) at the University of Illinois at Urbana-Champaign.

The majors offered in the College of ACES include: Agricultural and Consumer Economics, Agricultural Leadership and Science Education, Animal Sciences, Crop Sciences, Food Sciences and Human Nutrition, Horticulture, Human Development and Family Studies, Natural Resources and Environmental Sciences, Technical Systems Management.

Descriptions of each of these majors and their concentrations may be found at www.aces.illinois.edu (http://www.aces.illinois.edu). Specific recommendations for Carl Sandburg College courses that will meet the requirements for each of the majors are listed below.

To learn more about the transferability of courses not on this list, please use the U Select Website www.transfer.org (http://www.transfer.org) in conjunction with the University of Illinois General Education course listing http://courses.illinois.edu/cis/gened/ or contact the ACES Academic Programs Office (contact info below).

Students completing the prescribed course sequences at Carl Sandburg College, meeting the stated GPA requirement, and submission of a full application with supporting documentation, will be admitted to the College of Agricultural, Consumer and Environmental Sciences (ACES) at the University of Illinois. Acceptance into a specific major and concentration will be based on the individual student’s meeting of the requirements, conditions and considerations listed for that program, including space in that major or concentration.

I. Agriculture Requirements

Select three courses from the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGR.121</td>
<td>Introduction to Animal Science</td>
</tr>
<tr>
<td>AGR.131</td>
<td>Introduction to Crop Science</td>
</tr>
<tr>
<td>AGR.151</td>
<td>Introductory Soil Science</td>
</tr>
<tr>
<td>AGR.181</td>
<td>Introduction to Horticultural Science</td>
</tr>
</tbody>
</table>

II. General Education Requirements

A. Communications

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
</tr>
<tr>
<td>&amp; ENG.102</td>
<td>Freshman Composition 2</td>
</tr>
<tr>
<td>SPE.120</td>
<td>Introduction to Public Speaking</td>
</tr>
</tbody>
</table>

B. Humanities

Select one course from Fine Arts:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ART.111</td>
<td>Art Appreciation</td>
</tr>
<tr>
<td>ART.112</td>
<td>Art: Prehistoric to 1400</td>
</tr>
<tr>
<td>ART.113</td>
<td>Art: 1400 to Present Day</td>
</tr>
<tr>
<td>MUS.100</td>
<td>Music in the Western World</td>
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<tr>
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<td>Non-Western Music</td>
</tr>
<tr>
<td>THE.110</td>
<td>Theatre Arts Appreciation</td>
</tr>
<tr>
<td>THE.111</td>
<td>Theatre History</td>
</tr>
</tbody>
</table>

Select one course from Humanities:

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<tr>
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<th>Title</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>ENG.231</td>
<td>British Literature 1</td>
</tr>
<tr>
<td>ENG.232</td>
<td>British Literature 2</td>
</tr>
<tr>
<td>ENG.240</td>
<td>Women’s Literature</td>
</tr>
</tbody>
</table>

Select three additional hours from either Humanities or Fine Arts

C. Social Sciences

Select three courses from the following:

(Must select one or more courses from 3 subject areas)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ECO.101</td>
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</tr>
<tr>
<td>ECO.202</td>
<td>Principles of Micro Economics</td>
</tr>
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<td>Human Geography</td>
</tr>
<tr>
<td>GEO.110</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS.105</td>
<td>American History to 1877</td>
</tr>
<tr>
<td>HIS.106</td>
<td>American History From 1877</td>
</tr>
<tr>
<td>HIS.125</td>
<td>Western Civilization 1</td>
</tr>
<tr>
<td>HIS.126</td>
<td>Western Civilization 2</td>
</tr>
<tr>
<td>HIS.285</td>
<td>History of Africa: 1500 to Present</td>
</tr>
<tr>
<td>POS.122</td>
<td>American Government &amp; Politics</td>
</tr>
<tr>
<td>POS.223</td>
<td>State &amp; Local Government</td>
</tr>
<tr>
<td>POS.228</td>
<td>International Relations</td>
</tr>
<tr>
<td>POS.267</td>
<td>Comparative Government</td>
</tr>
<tr>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>PSY.204</td>
<td>Social Psychology</td>
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<td>PSY.206</td>
<td>The Social Psychology of Aging</td>
</tr>
<tr>
<td>PSY.221</td>
<td>Child Psychology</td>
</tr>
<tr>
<td>PSY.265</td>
<td>Developmental Psychology</td>
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<tr>
<td>SOC.203</td>
<td>Introduction to Diversity</td>
</tr>
<tr>
<td>SOC.260</td>
<td>Gender &amp; Society</td>
</tr>
</tbody>
</table>

D. Science/Mathematics

Select one course from Life Sciences:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>**</td>
<td>**</td>
</tr>
</tbody>
</table>

Science
BIO.101  General Biology  
BIO.102  General Zoology  
BIO.103  General Botany  
BIO.120  Environmental Science  
BIO.205  Human Biology  

Select one course from Physical Sciences:  
CHM.100  Concepts of Chemistry  
CHM.110  General Chemistry 1  
PHY.130  The Physical Universe  
PHY.151  General Physics 1 (MATH)  

Math  
Select two courses from the following:  
MAT.109  Concepts of Mathematics (MATH)  
MAT.112  Math for Elementary Teaching 2  
MAT.131  Finite Mathematics  
MAT.132  Calculus for Business Or Social Science  
MAT.210  Statistics  
MAT.240  Calculus With Analytic Geometry 1  
MAT.241  Calculus With Analytic Geometry 2  
MAT.242  Calculus With Analytic Geometry 3  
SSC.120  Statistics for Social Science (One or the other, but not both)  
or MAT.110  General Education Statistics  

III. Electives  
Choose 8 credit hours from any elective area. **  
Credit hours may come from additional agriculture major courses.  

IV. Other Requirements  
Human Relations Course — Select one course from the following:  
ART.111  Art Appreciation  
ART.113  Art: 1400 to Present Day  
ENG.160  Introduction to Fiction  
ENG.170  Introduction to Drama  
ENG.180  Introduction to Poetry  
ENG.221  American Literature 1  
ENG.222  American Literature 2  
ENG.250  African American Literature  
GEO.100  Human Geography  
GEO.110  World Regional Geography  
HIS.125  Western Civilization 1  
HIS.126  Western Civilization 2  
HIS.285  History of Africa: 1500 to Present  
MUS.100  Music in the Western World  
MUS.101  Introduction to American Music  
MUS.105  Non-Western Music  
MUS.200  Music History & Literature  
PHEL.102  Ethics  
PHEL.103  Biomedical Ethics  
PSY.204  Social Psychology  
SOC.101  Introduction to Sociology  
SOC.102  Contemporary Social Problems  
SOC.105  Intro to Cultural Anthropology  
SOC.201  Introduction to Anthropology  
SOC.203  Introduction to Diversity  
SOC.260  Gender & Society  
PHEL.110  Interpersonal Communication  
THE.110  Theatre Arts Appreciation  

Residency Requirement — (Complete 15 semester hours at Sandburg)  
GPA Required for Graduation — 2.0 on 4.0 scale  

Minimum Credit Hours For Completion  
64  

grades of “C” or better required for both courses  
** at least one course must be a lab course  
*** CIS.112 Computer Software Applications is recommended.  

Additional UIUC Requirements:  
• All transfer applicants must have completed either three years of one  
  language other than English in high school or through the second  
  level (2 semesters) of one language other than English in college prior  
  to the desired term of entry.  
• The college’s graduation requirement is satisfied by completion  
  through the third year of one language other than English in high  
  school or through the third level (3 semesters) of one language other  
  than English in college.  
• If General Chemistry II is required for degree completion, it is strongly  
  recommended that CHM.120 General Chemistry 2 be completed prior  
  to transfer.
# AFA Degree Requirements

## Associate in Fine Arts Degree

### (Emphasis in Art)

## I. General Education Requirements

### A. Communications

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
</tr>
<tr>
<td>ENG.102</td>
<td>Freshman Composition 2</td>
</tr>
<tr>
<td>SPE.120</td>
<td>Introduction to Public Speaking</td>
</tr>
</tbody>
</table>

### B. Humanities

Select one or more courses from two subject areas — no fine arts courses applicable:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG.160</td>
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<tr>
<td>ENG.232</td>
<td>British Literature 2</td>
</tr>
<tr>
<td>ENG.240</td>
<td>Women's Literature</td>
</tr>
<tr>
<td>PHL.100</td>
<td>Logic</td>
</tr>
<tr>
<td>PHL.101</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHL.102</td>
<td>Ethics</td>
</tr>
</tbody>
</table>

### C. Social Sciences

Select one or more courses from at least two different disciplines:

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<tr>
<th>Course Code</th>
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</tr>
</thead>
<tbody>
<tr>
<td>ECO.101</td>
<td>Introduction to Economics</td>
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### D. Science/Mathematics

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<tr>
<th>Course Code</th>
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</tr>
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<tr>
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<td>General Biology</td>
</tr>
<tr>
<td>BIO.102</td>
<td>General Zoology</td>
</tr>
<tr>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
</tr>
<tr>
<td>CHM.110</td>
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</tr>
<tr>
<td>PHY.130</td>
<td>The Physical Universe</td>
</tr>
<tr>
<td>PHY.151</td>
<td>General Physics 1</td>
</tr>
</tbody>
</table>

### II. Art

### Core Art Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART.112</td>
<td>Art: Prehistoric to 1400</td>
</tr>
<tr>
<td>ART.113</td>
<td>Art: 1400 to Present Day</td>
</tr>
<tr>
<td>ART.121</td>
<td>Two Dimensional Design</td>
</tr>
<tr>
<td>ART.122</td>
<td>Three Dimensional Design</td>
</tr>
<tr>
<td>ART.131</td>
<td>Drawing 1</td>
</tr>
<tr>
<td>ART.132</td>
<td>Drawing 2</td>
</tr>
<tr>
<td>ART.133</td>
<td>Life Drawing</td>
</tr>
</tbody>
</table>

### Elective Art Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART.141</td>
<td>Painting</td>
</tr>
<tr>
<td>ART.142</td>
<td>Advanced Painting</td>
</tr>
<tr>
<td>ART.151</td>
<td>Printmaking</td>
</tr>
<tr>
<td>ART.162</td>
<td>Digital Photography</td>
</tr>
<tr>
<td>ART.163</td>
<td>Digital Photography II</td>
</tr>
<tr>
<td>ART.171</td>
<td>Ceramics 1</td>
</tr>
<tr>
<td>ART.172</td>
<td>Ceramics 2</td>
</tr>
<tr>
<td>ART.193</td>
<td>Computer Art</td>
</tr>
</tbody>
</table>

### III. Other Requirements

GPA Required for Graduation — 2.0 on 4.0 scale
Residency Requirement — (Complete 15 semester hours at Sandburg)

### Total Hours Required For Degree

54

* grades of "C" or better required for both courses

---

# Associate in Fine Arts Degree

### (Emphasis in Music Performance)

## I. General Education Requirements

### A. Communications

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### B. Humanities

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</tr>
<tr>
<td>GEO.100</td>
<td>Human Geography</td>
</tr>
<tr>
<td>GEO.110</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIS.105</td>
<td>American History to 1877</td>
</tr>
<tr>
<td>HIS.106</td>
<td>American Hist From 1877</td>
</tr>
<tr>
<td>HIS.125</td>
<td>Western Civilization 1</td>
</tr>
<tr>
<td>HIS.126</td>
<td>Western Civilization 2</td>
</tr>
<tr>
<td>HIS.285</td>
<td>History of Africa: 1500 to Present</td>
</tr>
<tr>
<td>POS.122</td>
<td>American Government &amp; Politics</td>
</tr>
<tr>
<td>POS.223</td>
<td>State &amp; Local Government</td>
</tr>
<tr>
<td>POS.228</td>
<td>International Relations</td>
</tr>
<tr>
<td>POS.267</td>
<td>Comparative Government</td>
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<tr>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
</tr>
<tr>
<td>PSY.204</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>PSY.206</td>
<td>The Social Psychology of Aging</td>
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<tr>
<td>PSY.265</td>
<td>Developmental Psychology</td>
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<td>SOC.101</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOC.102</td>
<td>Contemporary Social Problems</td>
</tr>
<tr>
<td>SOC.103</td>
<td>Marriage and the Family</td>
</tr>
<tr>
<td>SOC.105</td>
<td>Intro to Cultural Anthropology</td>
</tr>
<tr>
<td>SOC.201</td>
<td>Introduction to Anthropology</td>
</tr>
<tr>
<td>SOC.203</td>
<td>Introduction to Diversity</td>
</tr>
<tr>
<td>SOC.260</td>
<td>Gender &amp; Society</td>
</tr>
</tbody>
</table>

### D. Science/Mathematics

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BIO.101</td>
<td>General Biology</td>
</tr>
<tr>
<td>BIO.102</td>
<td>General Zoology</td>
</tr>
<tr>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
</tr>
<tr>
<td>CHM.110</td>
<td>General Chemistry 1</td>
</tr>
<tr>
<td>PHY.130</td>
<td>The Physical Universe</td>
</tr>
<tr>
<td>PHY.151</td>
<td>General Physics 1</td>
</tr>
</tbody>
</table>

### Science

Select one course from Life Sciences, one course from Physical Sciences, and at least one laboratory course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIO.101</td>
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<td>BIO.102</td>
<td>General Zoology</td>
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<td>Concepts of Chemistry</td>
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<tr>
<td>CHM.110</td>
<td>General Chemistry 1</td>
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<tr>
<td>PHY.130</td>
<td>The Physical Universe</td>
</tr>
<tr>
<td>PHY.151</td>
<td>General Physics 1</td>
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### Mathematics

<table>
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<td>MAT.109</td>
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<tr>
<td>MAT.112</td>
<td>Math for Elementary Teaching 2</td>
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<tr>
<td>MAT.131</td>
<td>Finite Mathematics</td>
</tr>
<tr>
<td>MAT.132</td>
<td>Calculus for Business Or Social Science</td>
</tr>
<tr>
<td>MAT.210</td>
<td>Statistics</td>
</tr>
<tr>
<td>MAT.240</td>
<td>Calculus With Analytic Geometry 1</td>
</tr>
<tr>
<td>MAT.241</td>
<td>Calculus With Analytic Geometry 2</td>
</tr>
<tr>
<td>MAT.242</td>
<td>Calculus With Analytic Geometry 3</td>
</tr>
<tr>
<td>SSC.120</td>
<td>Statistics for Social Science (One or the other, but not both)</td>
</tr>
</tbody>
</table>

or MAT.110 General Education Statistics

---
ENG.101 & ENG.102
Freshman Composition 1
and Freshman Composition 2
SPE.120 Introduction to Public Speaking

B. Humanities
Select one or more courses from 2 subject areas — no music courses applicable:

ART.111 Art Appreciation
ART.112 Art: Prehistoric to 1400
ART.113 Art: 1400 to Present Day
ENG.160 Introduction to Fiction
ENG.170 Introduction to Drama
ENG.180 Introduction to Poetry
ENG.221 American Literature 1
ENG.222 American Literature 2
ENG.231 British Literature 1
ENG.232 British Literature 2
ENG.240 Women's Literature
PHL.100 Logic
PHL.101 Introduction to Philosophy
PHL.102 Ethics
THE.110 Theatre Arts Appreciation
THE.111 Theatre History

C. Social Sciences
ECO.101 Introduction to Economics
ECO.201 Principles of Macro Economics
ECO.202 Principles of Micro Economics
GEO.100 Human Geography
GEO.110 World Regional Geography
HIS.105 American History to 1877
HIS.106 American Hist From 1877
HIS.125 Western Civilization 1
HIS.126 Western Civilization 2
HIS.285 History of Africa: 1500 to Present
POS.122 American Government & Politics
POS.223 State & Local Government
POS.228 International Relations
POS.267 Comparative Government
PSY.101 Introduction to Psychology
PSY.204 Social Psychology
PSY.206 The Social Psychology of Aging
PSY.221 Child Psychology
PSY.265 Developmental Psychology
SOC.101 Introduction to Sociology
SOC.102 Contemporary Social Problems
SOC.103 Marriage and the Family
SOC.105 Intro to Cultural Anthropology
SOC.201 Introduction to Anthropology
SOC.203 Introduction to Diversity
SOC.260 Gender & Society

D. Science/Mathematics
BIO.101 General Biology
BIO.102 General Zoology
BIO.103 General Botany
BIO.120 Environmental Science
BIO.205 Human Biology
CHM.100 Concepts of Chemistry
CHM.110 General Chemistry 1
ESC.100 Introduction to Earth Science
PHY.130 The Physical Universe
PHY.151 General Physics 1

Math
MAT.109 Concepts of Mathematics
MAT.112 Math for Elementary Teaching 2
MAT.131 Finite Mathematics
MAT.132 Calculus for Business Or Social Science
MAT.210 Statistics
MAT.240 Calculus With Analytic Geometry 1
MAT.241 Calculus With Analytic Geometry 2
MAT.242 Calculus With Analytic Geometry 3

SSC.120 Statistics for Social Science (One or the other, but not both)
or MAT.110 General Education Statistics

II. Music
MUS.110 Music Theory 1
MUS.111 Music Theory 2
MUS.114 Ear Train & Sight Sing 1
MUS.115 Ear Train & Sight Sing 2
MUS.200 Music History & Literature
MUS.210 Music Theory 3
MUS.211 Music Theory 4
MUS.214 Ear Train & Sight Sing 3
MUS.215 Ear Train & Sight Sing 4

Performing Ensemble
MUS 12X 2 semester credits
MUS 22X-2 semester credits

Private Lessons for Pianists
MUS 13x-2 semester credits
MUS.140 Private Piano 1
MUS 23x-2 semester credits
MUS.240 Private Piano 2

Private Lessons-For all other Instruments
MUS.130 Private Piano 1
MUS 14x -4 semester credits
MUS.230 Private Piano 2
MUS 24x-4 semester credits

III. Other Requirements
GPA Required for Graduation — 2.0 on 4.0 scale
Residency Requirement — (Complete 15 semester hours at Sandburg)

Total Hours Required For Degree
63

grades of “C” or better required for both courses
Associate in Fine Arts Degree
(Emphasis in Music Education)

I. General Education Requirements 28

A. Communications 9
   ENG.101 Freshman Composition 1
   & ENG.102 and Freshman Composition 2
   SPE.120 Introduction to Public Speaking

B. Health 3
   HTH.120 Health

C. Social Sciences 6
   POS.122 American Government & Politics
   HIS.105 American History to 1877
   or HIS.106 American Hist From 1877

D. Science/Mathematics 10
   Science — select at least one lab course 7
   BIO.101 General Biology
   BIO.102 General Zoology
   BIO.103 General Botany
   BIO.120 Environmental Science
   BIO.205 Human Biology
   CHM.100 Concepts of Chemistry
   CHM.110 General Chemistry 1
   ESC.100 Introduction to Earth Science
   PHY.130 The Physical Universe
   PHY.151 General Physics 1

Math 3
   MAT.109 Concepts of Mathematics
   MAT.110 General Education Statistics
   MAT.112 Math for Elementary Teaching 2
   MAT.131 Finite Mathematics
   MAT.132 Calculus for Business Or Social Science
   MAT.210 Statistics
   MAT.240 Calculus With Analytic Geometry 1
   MAT.241 Calculus With Analytic Geometry 2
   MAT.242 Calculus With Analytic Geometry 3

II. Music 35

MUS.110 Music Theory 1
MUS.111 Music Theory 2
MUS.114 Ear Train & Sight Sing 1
MUS.115 Ear Train & Sight Sing 2
MUS.200 Music History & Literature
MUS.210 Music Theory 3
MUS.211 Music Theory 4
MUS.214 Ear Train & Sight Sing 3
MUS.215 Ear Train & Sight Sing 4

Performing Ensemble
MUS 12x 2 semester credits 2
MUS 22X 2 semester credits 2

Private Lessons for Pianists-
MUS 13x 2 semester credits 2
MUS.140-4 semester credits 4

For All Other Instruments
MUS.130 2
MUS14x 4
MUS.230 2
MUS24x 4

III. Other Requirements
GPA Required for Graduation — 2.0 on 4.0 scale
Residency Requirement — (Complete 15 semester hours at Sandburg)

Total Hours Required For Degree 63
## Associate in General Studies (Individually-Designed Degrees)

This curriculum is designed for students who desire to pursue a two-year program. It is not designed to serve as a degree for transfer.

Both baccalaureate and career, technical and health education courses may be taken as a part of this program.

Graduation requirements for the Associate in General Studies degree are listed below. Review the course descriptions to determine which courses count toward the various requirements.

### Associate in General Studies Degree

<table>
<thead>
<tr>
<th>I. General Studies Requirements</th>
<th>33</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Communications</td>
<td>6</td>
</tr>
<tr>
<td>ENG.101 1</td>
<td></td>
</tr>
<tr>
<td>SPE.120 2</td>
<td></td>
</tr>
<tr>
<td>B. Humanities</td>
<td>9</td>
</tr>
<tr>
<td>Art, Music, Philosophy, Literature, Foreign Language, Creative Writing, Theatre</td>
<td></td>
</tr>
<tr>
<td>C. Social Sciences</td>
<td>9</td>
</tr>
<tr>
<td>History, Political Science, Geography, Sociology, Psychology, Economics, Education</td>
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</tr>
<tr>
<td>D. Science/Mathematics</td>
<td>9</td>
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<tr>
<td>(Must complete courses in both science and mathematics for a total of 9 hours.)</td>
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</tr>
<tr>
<td>Science</td>
<td></td>
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<tr>
<td>Math</td>
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<tr>
<td>II. Electives</td>
<td>29</td>
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<tr>
<td>(May include both baccalaureate &amp; career, technical and health education credits)</td>
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<tr>
<td>III. Other</td>
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</tr>
<tr>
<td>GPA Required for Graduation — 2.0 on 4.0 scale</td>
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</tr>
<tr>
<td>Residency Requirement — (Complete 15 semester credit hours at Sandburg)</td>
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</tr>
<tr>
<td><strong>Total Hours Required For Graduation</strong></td>
<td><strong>62</strong></td>
</tr>
</tbody>
</table>
Accounting

Associate in Applied Science

This program is designed for the student who desires to prepare for employment in the accounting function of many different types of organizations. Manufacturing, distributions, marketing and sales, governmental, and non-profit organizations all require competent accounting personnel to keep accurate records and provide analysis of the effect of management decisions on day-to-day business activities. Satisfactory completion of this curriculum will provide competence for positions in accounting.

Certificate

This program is designed for the student who desires to work as an assistant to an accountant or accounting professional. Persons who take positions as accounting assistants need competence in the theory and practice of areas such as accounts receivable, accounts payable, payroll, merchandise accounting and fixed asset accounting. Standard record-keeping practices are also required. Satisfactory completion of this certificate program will provide an appropriate background for a job-entry level position as a bookkeeper or an assistant in an accounting department.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center

welcomecenter@sandburg.edu
309.345.3500

Certificate

First Year

Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOP.101 or BOC.107</td>
<td>Keyboarding &amp; Formatting 1 (or Articulated Credit)</td>
<td>3</td>
</tr>
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Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ACC.101</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>BOC.100 or MAT.131</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>AOP.101 or BOC.107</td>
<td>Keyboarding &amp; Formatting 1 (or Articulated Credit)</td>
<td>3</td>
</tr>
<tr>
<td>BUS.100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
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Directed Elective

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ACC.102</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC.203</td>
<td>Accounting Software</td>
<td>3</td>
</tr>
<tr>
<td>SPE.120</td>
<td>Introduction to Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Program Hours: 32.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Directed Electives

Select two of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>ACC.205</td>
<td>Cost Accounting</td>
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<tr>
<td>ACC.206</td>
<td>Federal Income Tax</td>
</tr>
<tr>
<td>ACC.207</td>
<td>Payroll Accounting</td>
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</table>
(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

**Johnson, Jill L**  
assistant professor, psychology  
associate dean of social & business sciences

**Williams, Keith W**  
instructor, economics/business administration  
coordinator, business programs
Administrative Office Assistant Certificate

This curriculum prepares students with the skills needed for office work, including keyboarding, records management, communications, computers and other office technology. Graduates are qualified for entry-level positions in a business where a wide variety of office skills are required.

Admission to the Program: Open

First-Time Enrollees
- Complete an application for admission to the College and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOP.100 Careers for Office Professional</td>
<td>1</td>
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<tr>
<td>AOP.101 Keyboarding &amp; Formatting 1</td>
<td>3</td>
</tr>
<tr>
<td>BOC.120 Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>BOC.100 Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>BOC.101 Business Records Management</td>
<td>2</td>
</tr>
<tr>
<td>PSY.101 or SOC.101 Introduction to Psychology</td>
<td>3</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>AOP.102 Keyboarding &amp; Formatting 2</td>
<td>3</td>
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<tr>
<td>AOP.116 Introduction to Microsoft Word</td>
<td>3</td>
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<tr>
<td>AOP.201 Business English</td>
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<tr>
<td>BOC.103 Office Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112 Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS.116 Website Support</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Program Hours: 30.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Culbertson, Vickie L
assistant professor, administrative office professional

Hawkinson, Carrie A
assistant professor, administrative office occupations

Higgins, Diana D
assistant professor, administrative office professional/graphic design associate dean of career technical health education
Administrative Office Professional
Associate in Applied Science

http://www.sandburg.edu/academics/administrative-office-professional

This curriculum prepares students with the efficient skill level needed for administrative/executive work, including keyboarding, speedwriting, office management, communications, computers and other office technology. Graduates are qualified for positions as administrative/executive assistants and office managers.

Admission to the Program: Open

First-Time Enrollees
- Complete an application for admission to the College and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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<td>AOP.100</td>
<td>Careers for Office Professional</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>AOP.101</td>
<td>Keyboarding &amp; Formatting 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOC.100</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOC.101</td>
<td>Business Records Management</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>BOC.120</td>
<td>Customer Service</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>PSY.101 or</td>
<td>Introduction to Psychology</td>
<td>3</td>
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<tr>
<td></td>
<td>SOC.101</td>
<td></td>
<td></td>
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<tr>
<td>Spring</td>
<td>AOP.102</td>
<td>Keyboarding &amp; Formatting 2</td>
<td>3</td>
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<tr>
<td></td>
<td>AOP.116</td>
<td>Introduction to Microsoft Word</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>AOP.201</td>
<td>Business English</td>
<td>2</td>
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<td>BOC.103</td>
<td>Office Technology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS.116</td>
<td>Website Support</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Second Year
| Fall     | ACC.101     | Principles of Financial Accounting       | 3     |
|          | AOP.203     | Office Procedures                        | 3     |
|          | BOC.102     | Business Communications                  | 3     |
|          | BUS.100     | Introduction to Business                 | 3     |
|          | SPE.110 or  | Interpersonal Communication              | 3     |
|          | SPE.120     |                                          |       |
| Spring   | AOP.216     | Advanced Microsoft Word                  | 3     |
|          | BUS.201     | Management Fundamentals                  | 3     |
|          | CIS.242     | Advanced Computer Software Applications  | 3     |
|          | ENG.120     | Report Writing                           | 3     |
|          | AOP.291 or  | Professional Internship 1                | 3     |
|          | AOP.292     |                                          |       |
|          |             | Total Program Hours:                    | 60.0  |

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Culbertson, Vickie L
assistant professor, administrative office professional

Hawkinson, Carrie A
assistant professor, administrative office occupations

Higgins, Diana D
assistant professor, administrative office professional/graphic design
associate dean of career technical health education
Automotive Technology

Certificate

www.sandburg.edu/academics/automotive-technology

Carl Sandburg College offers a two-semester certificate program in Automotive Technology providing students with the basic skills to gain employment in automotive dealerships, automotive technology centers, and independent service centers.

Nature of the Work

The work of automotive service technicians and mechanics has evolved from simply mechanical to high technology. Technicians must have an increasingly broad base of knowledge about how vehicles’ complex electronic components work and interact, as well as the ability to work with electronic diagnostic equipment and computer-based technical reference materials. Automotive service technicians and mechanics use these high tech skills to inspect, maintain, and repair vehicles. The ability to diagnose the source of a problem quickly and accurately requires good reasoning ability and a thorough knowledge of automobiles. Many technicians consider diagnosing hard-to-find troubles one of their most challenging and satisfying duties.

Working Conditions

Almost half of automotive service technicians work a standard 40-hour week, but about one third work over 40 hours per week. Many of those working over 40-hour weeks are self-employed technicians. Some shops offer evening and weekend service to meet the needs of their customers. Generally, service technicians work indoors in well ventilated and lighted repair shops.

Employment

Job opportunities for those individuals who complete automotive training programs are expected to be very good. Persons with good diagnostic and problem-solving skills should have the best opportunity. For well-prepared people with a technical background, automotive service technicians careers offer an excellent opportunity for good pay and secure employment. To learn more about the admission requirements and the application process for this program, call 309.345.3500.

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center

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2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

<table>
<thead>
<tr>
<th>Certificate</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
</tr>
<tr>
<td>Fall Semester</td>
</tr>
<tr>
<td>AUT.101</td>
</tr>
<tr>
<td>AUT.105</td>
</tr>
<tr>
<td>AUT.201</td>
</tr>
<tr>
<td>AUT.107</td>
</tr>
<tr>
<td>AUT.110</td>
</tr>
<tr>
<td>AUT.209</td>
</tr>
<tr>
<td>Spring Semester</td>
</tr>
<tr>
<td>AUT.103</td>
</tr>
<tr>
<td>AUT.202</td>
</tr>
<tr>
<td>AUT.203</td>
</tr>
<tr>
<td>AUT.204</td>
</tr>
<tr>
<td>AUT.206</td>
</tr>
<tr>
<td>Total Program Hours:</td>
</tr>
</tbody>
</table>

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Wright, Larry E
associate professor, automotive technology
Basic Industrial & Manufacturing Maintenance Certificate

Certificate

The certificate program provides generalized knowledge of electrical, welding, and manufacturing and industrial processes giving the program graduates knowledge and skill to be general maintenance workers in a variety of industrial, manufacturing, utilities, telecommunications and transportation settings.

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT.100 Electrical Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>MAT.101 Technical Mathematics 1</td>
<td>3</td>
</tr>
<tr>
<td>MTL.101 Machine Tool Fundamentals 1</td>
<td>3</td>
</tr>
<tr>
<td>MTL.103 Manufacturing Processes</td>
<td>2</td>
</tr>
<tr>
<td>WEL.101 Fundamentals of Welding Theory</td>
<td>2</td>
</tr>
<tr>
<td>WEL.103 Welding Survey</td>
<td>1</td>
</tr>
<tr>
<td>MFG.130 Industrial Safety</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Program Hours: 16.0

Note: Students enrolled in the Basic Industrial Manufacturing Maintenance Certificate must complete ELT, MTL, and WEL courses with a grade of C or better. In order to graduate, students must complete all ELT, MTL and WEL courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. ) section in this catalog.)

Johnson, Craig A
instructor, welding
Basic Network Security

Advanced Certificate

www.sandburg.edu/academics/information-technology

The Basic Network Security Advanced Certificate is designed to provide students with practical techniques for protecting the security of an organization's information assets and resources and increase the depth of knowledge and skills of technical staff charged with administering and securing information systems and networks. Security issues, technologies, and recommended practices are addressed at increasing layers of complexity, beginning with concepts and proceeding on to technical implementations. The courses required for this certificate involve extensive hands-on laboratories utilizing a heterogeneous network environment, scenario-based exercises, lecture/briefings, and open discussion to help participants develop their understanding of the problems and strategies for securing information systems and networks.

Admission Requirements

Participants must complete the Computer Technician Certificate, or the first year requirements of either the Computer Networking Specialist AAS degree or the Computer Information Systems Specialist AAS degree in order to be admitted into this advanced certificate program.

Computer Information Systems Course Completion Requirement

For credit toward certificate requirements, all CIS courses must have been completed during the five school years preceding conference of the certificate or must have the approval of the Dean of Career, Technical, and Health Education Programs or Program Coordinator.

Short-Term Benefits:

- Day and evening classes; lab classes; online classes
- Small class size allows for individual attention
- Quality education at an affordable price
- Range of programs to meet the students needs

Long-Term Benefits:

- Graduates are prepare for the workforce and can make their degrees and certificates work for them
- Continuing education is available to those already in the field.

The Future of Information Technology (Computer Information Science Systems) Programs

CIS System Support- Job prospects are best for college graduates who are up to date with the latest skills and technologies, particularly if they have supplemented their formal education with some relevant work experience. A strong background in fundamental computer skills combined with good interpersonal skills and communication skills is needed. Computer networking specialists should continue to enjoy favorable job prospects. Employers will demand a higher level of skill and expertise from their employees.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Advanced Certificate

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>CIT.185</td>
<td>Ethical Hacking &amp; Netwrk Dfens</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIT.186</td>
<td>Security + Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CRM.172</td>
<td>Introduction to Security</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS/CIT</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>Spring</td>
<td>CIS.182</td>
<td>Implementing Microsoft Infrastr</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS.282</td>
<td>Designing a Secure Windows Network</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIT.212</td>
<td>Linux Networking &amp; Security</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS/CIT</td>
<td>Elective</td>
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<td>Total Program Hours:</td>
<td>24.0</td>
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* Course credit outside of CIS/CIT coursework must be relevant to this certificate program and be approved by the Dean of Career, Technical, and Health Education Programs in order to be accepted for elective credit.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design
associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation
Biofuels Manufacturing Technology

Associate in Applied Science

http://www.sandburg.edu/academics/biofuels

The Associate in Applied Science in Biofuels Manufacturing Technology program is intended for persons who desire to become professional technicians qualified for employment in the renewable energy and/or manufacturing sectors. The technical components of the program prepare the graduate for employment as operating or technicians in the field of biodiesel production, wet and dry ethanol production, waste and water treatment, process control and chemical processing. This program is grant funded by the Illinois Green Economy Network - IGEN.

Biofuels Industry Growth

According to The Ethanol Industry Overview 2012, 209 U.S. ethanol plants are currently in production and is quoted as saying “The Graduates will be entering an industry that is continually adding positions.” Further, the Bureau of Labor Statistics, reports the Biofuels Industry employs over 11,000 workers with an additional 3,700 workers needed over the next 8 years.

Illinois Green Economy Network

Launched in 2008 the Illinois Green Economy Network (IGEN) is a president-led consortium of all 48 Illinois community colleges dedicated to the training and education of a green workforce and deployment of energy conservation and green technology. The IGEN Career Pathways initiative is a collaboration of 17 Illinois community colleges who develop, share and implement more than 30 online/hybrid associate degrees and certificates for green economy workforce training.

This program combines classroom instruction, interactive online training, and hands-on exercises. Local, state and national business and industry partnerships assist faculty with the task of modernizing curriculum to contain relevant workplace skills, such as critical thinking, decision making, entrepreneurship, and on-the-job training.

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu (admissions@sandburg.edu)
309.345.3500

Associate in Applied Science

Fall Start

<table>
<thead>
<tr>
<th>First Year</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
</tr>
<tr>
<td>BIO.101</td>
<td>General Biology</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BFM.101</td>
<td>Biofuels Fundamentals</td>
</tr>
<tr>
<td>BOC.107</td>
<td>Tech Skills for Business Environment</td>
</tr>
<tr>
<td>MAT.101</td>
<td>Technical Mathematics 1</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
</tr>
<tr>
<td>ELT.100</td>
<td>Electrical Fundamentals</td>
</tr>
<tr>
<td>BFM.201</td>
<td>Ethanol Production</td>
</tr>
<tr>
<td>BIO.200</td>
<td>General Microbiology</td>
</tr>
<tr>
<td>MFG.130</td>
<td>Industrial Safety</td>
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</table>

<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT.119</td>
<td>Industrial Electronic Control</td>
</tr>
<tr>
<td>HYD.101</td>
<td>Hydraulics and Pneumatics</td>
</tr>
<tr>
<td>BFM.202</td>
<td>Biodiesel Production</td>
</tr>
<tr>
<td>BFM.203</td>
<td>Water Treatment &amp; Control</td>
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<tr>
<td>BIO.120</td>
<td>Environmental Science</td>
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</table>

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>ELT.207</td>
<td>Electrohydra Process Control</td>
</tr>
<tr>
<td>ELT.213</td>
<td>Process Control &amp; Instrumentation</td>
</tr>
<tr>
<td>BUS.100</td>
<td>Introduction to Business</td>
</tr>
<tr>
<td>BFM.291 or</td>
<td>Professional Internship 1</td>
</tr>
<tr>
<td>BFM.292</td>
<td></td>
</tr>
<tr>
<td>SPE.110 or</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>SPE.120</td>
<td></td>
</tr>
<tr>
<td>MTL.103</td>
<td>Manufacturing Processes</td>
</tr>
</tbody>
</table>

Total Program Hours: 64.0

Students enrolled in the Biofuels Manufacturing Technology program must complete all BFM courses with a grade of C or better in order to register for subsequent courses and continue in the program. In order to graduate, students must complete all courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Young, Charles
instructor, IGEN biofuels manufacturing technology coordinator, IGEN biofuels manufacturing technology
Business Administration

Associate in Applied Science

This program is designed for students who want to develop administrative management skills for a career in business. In addition to building general business proficiency, students are given the opportunity of choosing courses that will prepare them for an occupation in management and supervision or in marketing and sales. Satisfactory completion of this program will provide an adequate level of competency for entry-level positions in various organizational structures.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu (admissions@sandburg.edu) 309.345.3500

Associate in Applied Science

First Year

Summer Session

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BOC.107 or AOP.101</td>
<td>Tech Skills for Business Environment or Articulated Credit</td>
<td>3</td>
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Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>ACC.101</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS.100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>MAT.099</td>
<td>Intermediate Algebra</td>
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Spring Semester

<table>
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<th>Course Title</th>
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<tbody>
<tr>
<td>ACC.102</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS.201</td>
<td>Management Fundamentals</td>
<td>3</td>
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<tr>
<td>ENG.102</td>
<td>Freshman Composition 2</td>
<td>3</td>
</tr>
<tr>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td>Directed Electives</td>
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Second Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BOC.102</td>
<td>Business Communications</td>
<td>3</td>
</tr>
<tr>
<td>ECO.201</td>
<td>Principles of Macro Economics</td>
<td>3</td>
</tr>
<tr>
<td>PSY.204</td>
<td>Social Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPE.110 or SPE.120</td>
<td>Interpersonal Communication or Presentation Graphics</td>
<td>3</td>
</tr>
<tr>
<td>Directed Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BUS.101</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.102</td>
<td>Sales Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.200</td>
<td>Advertising Fundamentals</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>OMS.101</td>
<td>Labor-Management Relations</td>
<td>3</td>
</tr>
<tr>
<td>OMS.102</td>
<td>Supervision Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>OMS.200</td>
<td>Human Resources Management</td>
<td>3</td>
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<td>Directed Electives</td>
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<table>
<thead>
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<th>Course Title</th>
<th>Credit</th>
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<tbody>
<tr>
<td>BOC.120</td>
<td>Customer Service</td>
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<tr>
<td>CIS.242</td>
<td>Advanced Computer Software Applications</td>
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</tr>
<tr>
<td>CIS.248</td>
<td>Presentation Graphics</td>
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Total Program Hours: 64.0

Directed Electives

Marketing/Sales Focus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
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</thead>
<tbody>
<tr>
<td>BUS.101</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.102</td>
<td>Sales Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.200</td>
<td>Advertising Fundamentals</td>
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</tr>
</tbody>
</table>

Management Focus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>OMS.101</td>
<td>Labor-Management Relations</td>
<td>3</td>
</tr>
<tr>
<td>OMS.102</td>
<td>Supervision Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>OMS.200</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
<tr>
<td>Directed Electives</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

Other courses could be used upon the approval of the program coordinator or the supervising Dean/Associate Dean.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Johnson, Jill L

assistant professor, psychology

associate dean of social & business sciences

Williams, Keith W

instructor, economics/business administration

coordinator, business programs
Cisco Network Associate

Certificate

www.sandburg.edu/academics/information-technology

The Cisco Network Associate certificate is designed to provide students with technical skills needed to become a network support specialist. This course of study also provides the student with the practical knowledge to successfully take the CCNA certification test.

Admission to the Program: Open

First-Time Enrollees

• Complete an application for admission and, if desired, apply for financial aid.
• Send an official high school transcript or GED score report to the Admissions and Records Office.
• Complete the placement exam, COMPASS.
• Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
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Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

Spring Semester
ICT.160 3.0

Fall Semester
ICT.260 3.0

Second Year

Spring Semester
ICT.261 3.0
ICT.262 3.0

Total Program Hours: 12.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design
associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation
Computed Tomography (CT)

Advanced Certificate

www.sandburg.edu/academics/computed-tomography

Computed Tomography is an imaging modality that combines the use of x-rays and computer technology. Cross-sectional images of the body are produced by an x-ray beam and an array of detectors that encircle the patient. These images can be reconstructed in multiple planes to display anatomical structures not otherwise visible on conventional radiographs. This one-semester program prepares radiographers to perform CT procedures in hospitals and imaging centers.

Licensure

Graduates are eligible to apply to take the ARRT Post-Examination for Computed Tomography. This certification is nationally recognized and enables the student to pursue employment throughout the U.S.

Admission

Applicants for these Advanced Certificates must be a graduate from an approved radiography program with a 2.5 or higher cumulative G.P.A. on a 4.0 scale and have active registration with the ARRT or registry eligible status to be considered for admission.

Admission Requirements:
1. If you have never attended Carl Sandburg College, complete a general application for admission to the College - http://sandburg.edu/admissions/steps-enroll
2. Submit official transcripts from high school and all post-secondary educational institutions.
3. Graduate from an A.R.R.T approved radiography program with a 2.5 or higher cumulative G.P.A. on a 4.0 scale.
4. Provide evidence of active registration with the A.R.R.T or registry eligible status.
5. Complete the HOBE T V test.
   • Reading- 73% or higher
   • Math- 60% or higher
   • Science- 39% or higher
   • English- 50% or higher
   • Total Adjusted Score- 54% or higher
6. Complete an application for the Computed Tomography program. (All program applications are available through the imaging advisor.)

Program admission is competitive and fulfillment of the basic requirements does not guarantee admission. Class size is limited and is determined by the number of available clinical sites within each community-college district. Participating community college districts (in addition to Carl Sandburg College) include: Blackhawk, Heartland, Illinois Central, Illinois Valley, John Wood, Lincoln Land, Parkland, Richland, Sauk Valley, Scott (IA), Southeastern (IA), and Spoon River.

Deadline for submission of application materials is February 15 through June 15. If necessary, additional review dates may be scheduled. Applicants will be notified by letter in mid-July whether or not they have been accepted in the program.

Accreditation

Carl Sandburg College is accredited through the North Central Association of Colleges and Schools – The Higher Learning Commission, 30 LaSalle Street, Suite 2400, Chicago, IL. 60602-2504.

Advanced Certificate

Program Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDT.262</td>
<td>Sectional Anatomy for Diagnostic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>RDT.250</td>
<td>CT Principles &amp; Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>RDT.252</td>
<td>Computed Tomography Procedures</td>
<td>4</td>
</tr>
<tr>
<td>RDT.255</td>
<td>CT Practicum</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Program Requirement</strong></td>
<td></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

NOTE: In order to graduate, each student must complete all required courses with a grade of “C” or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Whipple, Jackie D
assistant professor, radiologic technology
Computer Information Systems Specialist

Associate in Applied Science

This curriculum is designed to prepare students for entry-level employment positions that require them to be users and/or support users of microcomputers in a business or professional setting. All students will complete a core of technical content courses that provide specialized training for various employment opportunities. In addition to the specialized courses, a core of essential business and general education courses is included.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center

welcomecenter@sandburg.edu (admissions@sandburg.edu)
309.345.3500

Computer Information Systems Course Completion Requirement

For credit toward degree requirements, all CIS courses must have been completed during the five school years preceding conference of the degree or must have the approval of the Dean of Career, Technical, and Health Education Programs or Program Coordinator.

*NOTE: Computer Technician Certificate conferred upon successful completion of the required 30 hours contained in the first and second semesters plus summer session of this program. AAS Degree conferred upon successful completion of all 60 required hours.

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS.112 Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS.124 Foundations of Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS.128 Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS.180 Windows Network &amp; Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>PSY.151 Occupational Search &amp; Development</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>CIS.184 Managing Microsoft Wind Netwrk Envir</td>
<td>3</td>
</tr>
<tr>
<td>CIS.190 Wireless LANs</td>
<td>3</td>
</tr>
<tr>
<td>CIS.244 Hardware Installation &amp; Maintenance</td>
<td>3</td>
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<tr>
<td>CIS.152 or Networking Fundamentals</td>
<td>3</td>
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<tr>
<td>CIS.160 Interpersonal Communication</td>
<td>3</td>
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<table>
<thead>
<tr>
<th>Summer Session</th>
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<tbody>
<tr>
<td>CIS.211 Fundamentals of Unix</td>
<td>3</td>
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<tr>
<td>Computer Technician Certificate conferred</td>
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Second Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>BOC.100 or Business Mathematics</td>
<td>3</td>
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<tr>
<td>ENG.101 Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>BOC.120 Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>CIT.186 Security + Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>GCP.143 Introduction to Web Design</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>BUS.100 Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS.242 Advanced Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS.146 Microcomputer Database Applications 1</td>
<td>2</td>
</tr>
<tr>
<td>CIS.247 Microcomputer Database Applications 2</td>
<td>3</td>
</tr>
<tr>
<td>CIS.272 Internship</td>
<td>2</td>
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</tbody>
</table>

Computer Information Systems Specialist AAS Degree conferred Total Program Hours: 60.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation
Computer Networking Specialist

Associate in Applied Science

This curriculum is designed to prepare students for entry-level employment positions that require them to support local and wide area network installations in a business or professional setting. All students will complete a core of courses that will provide a basic understanding of popular network server environments and network architectures. Students will receive preparation for the Cisco Certified Network Associate examination as part of this program. Graduates will have the technical competencies required of persons who support networks and who are responsible for maintaining, upgrading, and supporting microcomputer systems. In addition to the specialized courses, essential business and general education courses are included.

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Computer Information Systems Course

Completion Requirement

For credit toward degree requirements, all CIS courses must have been completed during the five school years preceding conference of the degree or must have the approval of the Dean of Career, Technical, and Health Education Programs or Program Coordinator.

*NOTE: Computer Technician Certificate conferred upon successful completion of the required 30 hours contained in the first and second semesters plus summer session of this program. A.A.S. Degree conferred upon successful completion of all 62 required hours.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg

Computer Networking Specialist AAS Degree conferred

Total Program Hours: 62.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation

Associate in Applied Science

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
</tr>
<tr>
<td>CIS.124</td>
<td>Foundations of Information Technology</td>
<td>3</td>
</tr>
<tr>
<td>CIS.128</td>
<td>Fundamentals of Programming</td>
<td>3</td>
</tr>
<tr>
<td>CIS.180</td>
<td>Windows Network &amp; Operating Systems</td>
<td>3</td>
</tr>
<tr>
<td>PSY.151</td>
<td>Occupational Search &amp; Development</td>
<td>3</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS.184</td>
<td>Managing Microsoft Wind Netwrk Envir</td>
<td>3</td>
</tr>
<tr>
<td>CIS.190</td>
<td>Wireless LANs</td>
<td>3</td>
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Second Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOC.100 or MAT.101</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>CIS.162</td>
<td>Introduction to Local Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIS.163</td>
<td>Introduction to Wide Area Networks</td>
<td>3</td>
</tr>
<tr>
<td>CIT.186</td>
<td>Security + Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS.281</td>
<td>Administering Microsoft Sql Server</td>
<td>3</td>
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</tbody>
</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS.100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>CIS.182</td>
<td>Implementing Microsoft Network Infrastr</td>
<td>3</td>
</tr>
<tr>
<td>CIS.272</td>
<td>Internship</td>
<td>2</td>
</tr>
<tr>
<td>SPE.110 or SPE.120</td>
<td>Interpersonal Communication</td>
<td>3</td>
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</tbody>
</table>

Computer Networking Specialist Certificate conferred

Total Program Hours: 62.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation
Computer Technician

Certificate

www.sandburg.edu/academics/information-technology

The Computer Technician Certificate will provide to students the skills needed to gain access to entry-level computer support positions. Additionally, students will have the option to continue their education and skill level as this Certificate is the first year of the A.A.S. degrees in either Computer Information Systems Specialist or Computer Networking Specialist.

For credit toward degree requirements, all CIS courses must have been completed during the five school years preceding conference of the certificate or must have the approval of the Dean of Career, Technical, and Health Education Programs or Program Coordinator.

Admission to the Program: Open

First-Time Enrollees

• Complete an application for admission and, if desired, apply for financial aid.
• Send an official high school transcript or GED score report to the Admissions and Records Office.
• Complete the placement exam, COMPASS.
• Meet with an advisor/counselor to select classes and complete the registration process.

Computer Information Systems Course Completion Requirement

For credit toward degree requirements, all CIS courses must have been completed during the five school years preceding conference of the degree or must have the approval of the Dean of Career, Technical, and Health Education Programs or Program Coordinator.

*NOTE: Computer Technician Certificate conferred upon successful completion of the required 30 hours contained in the first and second semesters plus summer session of this program. A.A.S. Degree conferred upon successful completion of all 62 required hours.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>ICT.110</td>
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<tr>
<td>ICT.125</td>
<td>3.0</td>
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<tr>
<td>ICT.170</td>
<td>3.0</td>
</tr>
<tr>
<td>ICT.180</td>
<td>3.0</td>
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</table>

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOC.120</td>
<td></td>
</tr>
<tr>
<td>ICT.160</td>
<td>3.0</td>
</tr>
<tr>
<td>ICT.182</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Program Hours: 23.0

- Note:
  - Successful completion of this Certificate also completes the first year of the Computer Information Systems Specialist AAS degree.
  - Successful completion of this Certificate (with CIS.160 Introduction to Internetworking option only) and with the additional completion of CIS.161 Intro to Internetworking Operating Sys. also completes the first year of Computer Networking Specialist AAS degree.

(Student who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Higgins, Diana D
assistant professor, administrative office professional/graphic design associate dean of career technical health education

Johnson, Cynthia S
instructor, computer information systems

Lee, Linda L
associate director of educational technology and innovation
Cosmetology

Certificate and Degree

http://www.sandburg.edu/academics/cosmetology

Carl Sandburg College offers a certificate program designed to prepare students to become licensed cosmetologists in Illinois. The program utilizes the teaching methods created by the international hair and beauty company, Pivot Point®. This unique system provides high quality education and services via coursebooks, DVDs and slides.

Cosmetologists provide many services to their clients such as shampooing, cutting, coloring, and styling hair. They may advise clients on how to care for their hair, straighten or permanent wave hair, or lighten or darken hair color. Additionally, a growing number of salons offer specialized services. Nail technologists work exclusively on nails and provide manicures, pedicures, coloring, and nail extension to clients. Additionally, many careers are available in sales and marketing with the large companies that manufacture hair care products.

Working Conditions

Cosmetologists usually work in pleasant surroundings with good lighting and ventilation. Good health and stamina are important because these workers are on their feet most of the time. Most full-time workers put in a 40-hour week, but longer hours are common in this occupation, especially among self-employed workers. Work schedules may include weekends and evenings which are often the busiest times. Nearly half of all cosmetologists work part-time or have variable schedules.

Employment

Overall employment of cosmetologists is projected to grow about as fast as the average for all occupations. Job opportunities should be favorable, especially because numerous openings will arise from workers who transfer to other occupations, retire, or leave the labor force.

Accreditation /Licensure

Carl Sandburg College is accredited through the North Central Association of Colleges and Schools–The Higher Learning Commission, 30 LaSalle Street, Suite 2400, Chicago, IL 60602-2504. The program is approved by the Illinois Department of Financial and Professional Regulation and satisfies that agency's requirement of 1,500 hours of instruction or 50 credit hours. Persons who satisfactorily complete this curriculum are eligible to apply to take the cosmetology licensing examination required by the Illinois Department of Financial and Professional Regulation.

*Pivot Point is a registered service mark and trademark owned by Pivot Point International, Inc.

Admission to the Program: Limited

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center

welcomecenter@sandburg.edu (admissions@sandburg.edu)
309.345.3500

Certificate

Fall Start

First Year

Fall Semester  
COS.101 Introduction to Cosmetology Theory 5
COS.102 Introduction to Cosmetology Lab 8
COS.103 Preclinical Cosmetology 7

Spring Semester

COS.111 Technical Aspects of Cosmetology Theory 5
COS.112 Technical Aspects of Cosmetology Lab 8
COS.113 Technical Aspects of Cosmetology Clinic 7

Summer Session

COS.161 Concepts of Cosmetology Theory 3
COS.162 Concepts of Cosmetology Lab 4
COS.163 Concepts of Cosmetology Clinic 3

Total Program Hours: 50.0

Spring Start

First Year

Spring Semester  
COS.101 Introduction to Cosmetology Theory 5
COS.102 Introduction to Cosmetology Lab 8
COS.103 Preclinical Cosmetology 7

Summer Session

COS.161 Concepts of Cosmetology Theory 3
COS.162 Concepts of Cosmetology Lab 4
COS.163 Concepts of Cosmetology Clinic 3

Fall Semester

COS.111 Technical Aspects of Cosmetology Theory 5
COS.112 Technical Aspects of Cosmetology Lab 8
COS.113 Technical Aspects of Cosmetology Clinic 7

Total Program Hours: 50.0

NOTE: Students enrolled in the Cosmetology program must complete all COS courses with a grade of "C" or better in order to register for subsequent courses. In order to be eligible to apply for the Illinois licensing examination, students must meet the following requirements:

- Complete all Cosmetology courses with a "C" or better
- Earn a "75%" or higher on both the theoretical and clinical portions of the Cosmetology program's final examination
- Fulfill the 1,500-clock-hour attendance requirement

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
## Associate in Applied Science

### First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<td>COS.101</td>
<td>Introduction to Cosmetology Theory</td>
<td>5</td>
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<tr>
<td></td>
<td>COS.102</td>
<td>Introduction to Cosmetology Lab</td>
<td>8</td>
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<tr>
<td></td>
<td>COS.103</td>
<td>Preclinical Cosmetology</td>
<td>7</td>
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<tr>
<td>Spring</td>
<td>COS.111</td>
<td>Technical Aspects of Cosmetology Theory</td>
<td>5</td>
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<tr>
<td></td>
<td>COS.112</td>
<td>Technical Aspects of Cosmetology Lab</td>
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<td></td>
<td>COS.113</td>
<td>Technical Aspects of Cosmetology Clinic</td>
<td>7</td>
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### Second Year

<table>
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<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tr>
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<td>COS.161</td>
<td>Concepts of Cosmetology Theory</td>
<td>3</td>
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<td></td>
<td>COS.162</td>
<td>Concepts of Cosmetology Lab</td>
<td>4</td>
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<td></td>
<td>COS.163</td>
<td>Concepts of Cosmetology Clinic</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>or SOC.101</td>
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<td></td>
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<tr>
<td>Spring</td>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
<td>3</td>
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<td></td>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
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<td>BOC.100</td>
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<td>SPE.110</td>
<td>Interpersonal Communication</td>
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<td>or SPE.120</td>
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<td></td>
<td>BIO.111</td>
<td>Anatomy &amp; Physiology Fundamentals</td>
<td>4</td>
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**Total Program Hours:** 69.0

Note: Students enrolled in the Cosmetology program must complete all COS course with a grade of C or better in order to register for subsequent courses. In order to be eligible to apply for the Illinois licensing examination, students must meet the following requirements:

- Complete all Cosmetology courses with a C or better
- Earn a 75% or higher on both the theoretical and clinical portions of the cosmetology program's final examination
- Fulfill the 1,500 clock hour attendance requirement.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)

**Kirchgessner, Barbara K**
instructor, cosmetology coordinator of cosmetology

**Ulm, Donald D**
instructor, cosmetology
Cosmetology Teacher

Certificate

This program is designed for the individual who is already a licensed cosmetologist in Illinois and who has two or more years of employment experience within the past five years. The program is approved by the Illinois Department of Financial and Professional Regulation. Persons who satisfactorily complete this curriculum must take a state required exam to become a licensed cosmetology teacher as stipulated by the Illinois Department of Financial and Professional Regulation.

Admission to the Program: Limited

First-Time Enrollees

1. Complete an application for general admission to the College and, if desired, apply for financial aid.
2. Complete an application for admission to the Cosmetology Teacher program.
3. Complete the placement exam, COMPASS. Students must meet or exceed minimum established scores on COMPASS to qualify for admission.
4. Provide documentation of Illinois Cosmetology license and required employment experience.
5. Meet with an advisor/counselor to select classes and complete the registration process.

Admission to the Program: Limited

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

Program Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>COS.201</td>
<td>Student Teaching Fundamentals</td>
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<tr>
<td>COS.202</td>
<td>Supervised Teaching</td>
<td>3</td>
</tr>
<tr>
<td>COS.203</td>
<td>Business Procedures</td>
<td>2.5</td>
</tr>
<tr>
<td>COS.204</td>
<td>Educational Psychology - Cos Teachers</td>
<td>3</td>
</tr>
<tr>
<td>COS.205</td>
<td>Teaching Methods-Cos Teacher</td>
<td>5</td>
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<tr>
<td><strong>Total Program Requirement</strong></td>
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</tbody>
</table>

NOTE: Students enrolled in the Cosmetology Teacher program must complete all COS courses with a grade of "C" or better in order to register for subsequent courses.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Kirchgessner, Barbara K
instructor, cosmetology
coordinator of cosmetology

Ulm, Donald D
instructor, cosmetology
Criminal Justice

Associate in Applied Science and Certificate

www.sandburg.edu/academics/criminal-justice

Criminal Justice Associate in Applied Science

A student completing this curriculum will be eligible for employment with various law enforcement, judiciary, and correctional agencies. Various positions in business and industrial security may also be available. A student with a criminal conviction will be admitted to the program, but may experience difficulty in securing employment in some criminal justice areas. Students planning to transfer to Western Illinois University with this degree should consult with a counselor or the Criminal Justice Coordinator for advisement on WIU's pre-enrollment requirements.

Criminal Justice Certificate

A student completing this curriculum will be eligible for employment with various criminal justice agencies. Certain private positions, such as business, industrial, and institutional security guards, may also be available. A student with a felony conviction will be admitted to the program, but may experience difficulty in securing employment in some criminal justice agencies.

Law, Public Safety, Corrections & Security

Carl Sandburg College offers students the opportunity to prepare for a wide array of careers in public service including law enforcement officers, correctional staff and private security positions. Both the public and private sector careers are readily available in many locations and include high incomes especially for those who obtain bachelor's or master's degrees.

Program Features

Students have an opportunity to make the criminal justice program work with their schedule. The courses are offered in the day and evening on a scheduled semester outline. Students are exposed to a rich curriculum that allows for a solid foundation in all aspects of the criminal justice system.

Short-Term Benefits

- Day and evening classes; online offerings
- Small class sizes allowing for individual attention
- Quality education at an affordable price
- Range of programs to meet the students needs

Long-Term Benefits

- Graduates are prepared for the workforce and can make their degrees and certificates work for them
- Continuing education available to those in the field

The Future of Public Safety, Corrections and Security

Employers are seeking entry level applicants with an education associated with an Associate degree or higher. Agencies are seeking applicants with strong communication, writing, and leadership qualities. Applicants will need to pass several pre-hiring testing requirements which vary from agency to agency. Applicants need to be in good health, pass fitness standards and have a clear criminal background for consideration.

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center
Phone: 309.345.3500
welcomecenter@sandburg.edu

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG.101 Freshman Composition 1</td>
<td>3</td>
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<tr>
<td>BOC.107 Tech Skills for Business Environment</td>
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</table>

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>CRM.101 Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>CRM.102 Police Administration &amp; Management</td>
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</tr>
<tr>
<td>CRM.231 Procedural Law for Police</td>
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<td>CRM.271 Criminal Investigation</td>
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<td>SOC.205 Social Problems-Professional Ethics</td>
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<table>
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<th>Spring Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>CRM.121 Juvenile Justice</td>
<td>3</td>
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<tr>
<td>CRM.261 Criminal Law</td>
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<tr>
<td>CRM.222 Communication in Criminal Justice</td>
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<td>SPN.120 Spanish for Professionals 1</td>
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<td>CRM.141 Introduction to Corrections</td>
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<td>KIN.140 Physical Fitness 1</td>
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Second Year

<table>
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<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>PSY.101 or PSY.202 Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC.101 Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112 Computer Software Applications</td>
<td>3</td>
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<tr>
<td>SPE.110 or SPE.120 Interpersonal Communication</td>
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<td>PSY.207 or ENG.102 Crisis Intervention</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
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<tbody>
<tr>
<td>POS.122 or POS.223 American Goverment &amp; Politics</td>
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<tr>
<td>CRM.151 Criminal Justice &amp; Community Relations</td>
<td>3</td>
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<tr>
<td>CRM.172 Introduction to Security</td>
<td>3</td>
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<tr>
<td>CRM.262 Criminal Justice Internship</td>
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<tr>
<td>HTH.140 Wellness</td>
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</table>

Total Program Hours: 65.0
* KIN.141 Physical Fitness 2, KIN.142 Physical Fitness 3 & KIN.143 Physical Fitness 4 also accepted.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

## Certificate

### First Year

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>ENG.101 Freshman Composition 1</td>
<td>3</td>
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<tr>
<td>BOC.107 Tech Skills for Business Environment</td>
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### Fall Semester

| CRM.101 Introduction to Criminal Justice             | 3              |
| CRM.102 Police Administration & Management           | 3              |
| CRM.231 Procedural Law for Police                    | 3              |
| CRM.271 Criminal Investigation                       | 3              |
| SOC.205 Social Problems-Professional Ethics          | 3              |

### Spring Semester

| CRM.121 Juvenile Justice                             | 3              |
| CRM.222 Communication in Criminal Justice           | 3              |
| SPN.120 Spanish for Professionals 1                  | 2              |
| CRM.261 Criminal Law                                 | 3              |
| CRM.141 or CRM.172 Introduction to Corrections       | 3              |

Total Program Hours: 35.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

**Johnson, Jill L**

Assistant professor, psychology
Associate dean of social & business sciences

**Kellogg, David M**

Assistant professor, criminal justice
Coordinator of criminal justice
Dental Hygiene

Associate in Applied Science

http://www.sandburg.edu/academics/dental-hygiene

The Dental Hygiene program prepares the student to work as a dental hygienist under the supervision of a licensed dentist in dental offices and other health agencies. Dental hygienists remove soft and hard deposits from teeth, teach patients how to practice good oral hygiene, and provide other preventative dental care, such as cleaning and polishing teeth, taking radiographs and applying fluoride treatment. The dental hygienist also serves as an oral health educator in the clinical and community setting. Dental hygienists should work well with others and must have good manual dexterity to use dental instruments within a patient’s mouth, with little room for error.

Working Conditions

Flexible scheduling is a distinctive feature of this job. Full-time, part-time, evening, and weekend schedules are widely available. Hygienists are frequently hired to work only two or three days a week, so hygienists may hold jobs in more than one dental office. Dental hygienists work in offices that are clean and well lit, and they must follow important health safeguards including wearing safety glasses, masks and gloves to protect themselves from blood-borne pathogens and infectious diseases.

Employment


Accreditation/Licensure

The Dental Hygiene program has been approved by the Illinois Community College Board and the Illinois Board of Higher Education. The program in dental hygiene is accredited by the American Dental Association Commission on Dental Accreditation and has been granted the accreditation status of "approval without reporting requirements". The Commission is a specialized accrediting body recognized by the United States Department of Education. The Commission on Dental Accreditation can be contacted at 312-440-4653, or at 211 E. Chicago Avenue, Chicago, IL 60611. Graduates from the Dental Hygiene program will be eligible to take the National Dental Hygiene Board Examination, the respective clinical dental hygiene board examination, and the examination for registration as a dental hygienist in the respective state.

Admission to the Program: Limited

Admission to limited enrollment programs is competitive and selection is based on candidates’ overall academic performance. All prospective students for the Dental Hygiene program must submit all admission materials and meet admission requirements before their applications will be considered for review. Applicants who are denied admission to a program and wish to apply for a subsequent academic year must repeat the application process in its entirety. As a result, no application files are carried over from prior years which allows the evaluation process to begin anew October 1 of each year. The most qualified applicants who are residents of the Carl Sandburg College district or who are residents of a community college district participating in a cooperative agreement with Carl Sandburg College will be given preference for admission to the programs.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd
Galesburg, IL 61401
Phone: 309.345.3500
welcomcenter@sandburg.edu

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
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<tbody>
<tr>
<td>DHG.109</td>
<td>Preclinic Laboratory</td>
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<tr>
<td>DHG.110</td>
<td>Fundamentals of Dental Hygiene</td>
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<tr>
<td>DHG.112</td>
<td>Dental Radiology</td>
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<tr>
<td>DHG.113</td>
<td>Preventive Dentistry</td>
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<td>DHG.114</td>
<td>Head/Neck &amp; Oral Anatomy</td>
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<td>DHG.115</td>
<td>Dental Hygiene Practice 1</td>
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<td>BIO.211</td>
<td>Anatomy &amp; Physiology 1</td>
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<tr>
<td>DHG.118</td>
<td>Oral Histology &amp; Embryology</td>
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<td>DHG.119</td>
<td>Periodontology 1</td>
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<td>DHG.120</td>
<td>Dental Hygiene 2</td>
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<td>DHG.125</td>
<td>Dental Hygiene Practice 2</td>
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<tr>
<td>BIO.212</td>
<td>Anatomy &amp; Physiology 2</td>
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<tr>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
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<td>ENG.101</td>
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<th>Pre-Summer Session</th>
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<tr>
<td>DHG.200</td>
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<td>DHG.205</td>
<td>Dental Hygiene Practice 3</td>
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<tr>
<td>BIO.200</td>
<td>General Microbiology</td>
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<tr>
<td>Fall Semester</td>
<td>Semester Hours</td>
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<tr>
<td>DHG.210</td>
<td>Dental Hygiene 4</td>
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<td>DHG.211</td>
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<td>DHG.212</td>
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<td>DHG.213</td>
<td>Pharmacology</td>
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<td>DHG.215</td>
<td>Dental Hygiene Practice 4</td>
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<td>NUT.110</td>
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<tr>
<td>DHG.217</td>
<td>Clinical Applications Pain/Anxiety Ctrl</td>
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<td>DHG.218</td>
<td>Dental Office Management &amp; Jurisprudence</td>
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<td>DHG.219</td>
<td>Periodontology 2</td>
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<td>DHG.225</td>
<td>Dental Hygiene Practice 5</td>
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<tr>
<td>SPE.120</td>
<td>Introduction to Public Speaking</td>
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<td>PSY.101</td>
<td>Introduction to Psychology</td>
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</table>

Total Program Hours: 79.5
Courses must be completed with a grade of "C" or better by the end of the scheduled semester. In order to graduate, each student must complete all required courses with a grade of "C" or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

**Eagen, Carla J**  
instructor, dental hygiene

**Kosier, Stacy J**  
instructor, dental hygiene  
coordinator, dental hygiene
Diagnostic Cardiac Sonography
Advanced Certificate

http://www.sandburg.edu/academics/diagnostic-cardiac-sonography

Diagnostic Cardiac Sonography Program curriculum consists of 16 months of intensive, integrated didactic and clinical coursework designed to prepare graduates to create diagnostic images and data of the heart and vascular structures in hospitals, clinics, and other diagnostic imaging facilities. A cardiac sonographer is a highly skilled health care professional who uses complex ultrasound equipment producing high-frequency sound waves to create diagnostic images and data to diagnose cardiovascular disease.

Eligibility Requirements

1. Graduation from high school or equivalent

2. Allied Health Education in Radiologic Technology:
   - Graduate of a nationally accredited Radiologic Technology program in the United States with a 2.7 or higher cumulative GPA on a 4.0 scale
   - Post-secondary course work in Physics, Human Anatomy or Anatomy & Physiology, Medical Terminology, Biomedical Ethics, and patient care must be documented. In addition two years of high school Algebra or MAT 099 must be documented.

NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.

OR

Other Allied Health Education:

- Graduates of a nationally accredited 24-month patient care-related allied health program in the United States with a 2.7 or higher cumulative GPA on a 4.0 scale. Examples of eligible professionals include Radiation Therapy, Nuclear Medicine, Associate Degree Nursing, Physical Therapy, and Respiratory Therapy.
- Post-secondary course work equivalent to General Physics (PHY 151 & 152), Anatomy & Physiology (BIO 211 & 212), Medical Terminology (MDT 100), Biomedical Ethics (PHL 103) & patient care must be documented. In addition two years of high school Algebra or MAT 099 must be documented. NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.
- Proof of current professional registration, licensure, or certification is required

OR

Baccalaureate Degree:

- Baccalaureate degree from a regionally accredited United States college or university, or equivalent as evaluated by a formal credentials evaluation mechanism with a 2.7 or higher cumulative GPA on a 4.0 scale.
- Post-secondary course work equivalent to General Physics (PHY 151 & 152), Anatomy & Physiology (BIO 211 & 212), Medical Terminology (MDT 100), and Biomedical Ethics (PHL 103) must be documented. In addition, two years of high school Algebra or MAT 099 and 100 hours of extensive, direct patient care must be documented. NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.
- Sonography program curriculum does not include basic patient care course work due to the program length and concentrated sonography curriculum. Direct patient care experience is necessary to ensure a level of proficiency needed to be successful in the program. The didactic component of the program requires the candidate to focus specifically on sonography-related skills and, therefore, basic patient care skills are required upon admission.
- Patient care course requirements may be met by satisfactory completion of EMT.101.
- Clinical experience must involve recent (within 5 years) extensive direct patient contact of at least 100 hours. Submission of a Verification of Patient Care Experience form with your direct supervisor’s contact information is required for the application process.

Admission Requirements

1. Complete a general application for admission to the College - http://www.sandburg.edu/admissions/steps-enroll

2. Submit official transcripts from high school and all post-secondary educational institutions. Complete HOBET, including the areas of Reading Skills and Math Skills. Testing must be within six months of the appropriate application deadline.

3. Attend a mandatory information meeting with program personnel to discuss the program format. Submit verification of Patient Care Experience form (required from all candidates without an allied health background).

4. Complete an application for the Diagnostic Cardiac Sonography program. (Program applications are available from the program advisor).

Program admission is competitive and fulfillment of the basic requirements does not guarantee admission. Class size is limited and is determined by the number of available clinical sites within each community-college district. Participating community college districts (in addition to Carl Sandburg College) include: Blackhawk, Heartland, Illinois Central, Illinois Valley, John Wood, Lincoln Land, Parkland, Richland, Sauk Valley, Scott (IA), Southeastern (IA), and Spoon River.

Student selection is based on course work, GPA, and HOBET scores. From the pool of applicants, those who are considered most qualified for the study and practice of sonography will be admitted. Candidates with allied health backgrounds will be given first priority on available classroom and clinical slots. Practicing sonographers seeking formal didactic instruction may seek enrollment in the classroom-only portions of the program, and may enroll with instructor permission without completing the formal application process.

Application forms and materials for Fall will be accepted February 15 through June 15 for review. Applications will be accepted from May 1 through September 1 for the Spring start in January. Applicants will be notified in writing within 2 weeks of the deadline of admission status. Students who are admitted to the DCS program must pay a $100 acceptance fee when notified of initial program admission status to guarantee a place in the program. For the student fully admitted to the program, the $100 will be applied towards the first semester tuition.
Students who accept their seat and drop for any reason will forfeit their money.

Future program starting dates are:

• Spring 2015
• Fall 2016

NOTE: This program requires a criminal background check, health evaluation including proof of immunity, a 10-panel drug screen, and CPR certification prior to entering radiologic technology classes. Findings on the criminal background check, health evaluation and/or drug screen may prevent the applicant from entering the program.

Notice to Applicants of the Diagnostic Cardiac Sonography Program:

Your personal history may affect your ability to be certified as a registered sonographer. The ARDMS reserves the right to take action against an applicant, candidate, or Registrant in case of conviction, plea of guilty or nolo contendere to any crime. If you are presently charged with, or been convicted or found guilty of or plead nolo contendere to any crime (felony and/or misdemeanor), other than a speeding or parking violation you may wish to seek clarification from the ARDMS as to how it pertains to your circumstances. In addition the application for ARDMS certification asks the following questions: 1. Have you ever been subject to revocation, suspension, or other disciplinary action by a: (1) state licensing board, (2) state or Federal agency, (3) national professional association? 2. Are you currently charged with or have you ever been convicted of, or pleaded guilty or nolo contendere, to any crime? A response of “yes” to any of the above may result in a delay or denial of certification. Questions regarding eligibility for ARDMS certification may be directed to:

ARDMS
51 Monroe St.
Plaza East One
Rockville, MD 20850-2400
1-800-541-9754
www.ARDMS.org/legal (http://www.ARDMS.org/legal)

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.,
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Advanced Certificate

Fall Start

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
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<tr>
<td>RDT.262</td>
<td>Sectional Anatomy for Diagnostic Imaging</td>
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<tr>
<td>DMS.250</td>
<td>Ultrasound Physics &amp; Instrumentation 1</td>
<td>2</td>
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<tr>
<td>DCS.256</td>
<td>Cardiac Sonography 1</td>
<td>4</td>
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<tr>
<td>DCS.257</td>
<td>Cardiac Sonography Practicum 1</td>
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Spring Semester

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<tr>
<td>DMS.284</td>
<td>Advanced Physics &amp; Instrumentation II</td>
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<tr>
<td>DCS.266</td>
<td>Cardiac Sonography II</td>
<td>4</td>
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<td>DCS.267</td>
<td>Cardiac Sonography Practicum II</td>
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Summer Session

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<td>DCS.276</td>
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<td>DCS.277</td>
<td>Cardiac Sonography Summer Practicum</td>
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Second Year

Fall Semester

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<tr>
<td>DCS.286</td>
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<tr>
<td>DCS.278</td>
<td>Cardiac Image Interpretation &amp; Critique</td>
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<tr>
<td>DCS.287</td>
<td>Cardiac Sonography Practicum III</td>
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</table>

Total Program Hours: 47.5

NOTE: Students enrolled in the Diagnostic Cardiac Sonography program must complete all DCS, DMS and RDT courses with a grade of "C" or better in order to be eligible to register for subsequent courses. In order to graduate, students must complete all required courses with a grade of "C" or better.

(Student who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
Diagnostic Medical Sonography
Advanced Certificate

http://www.sandburg.edu/academics/diagnostic-medical-sonography

Diagnostic Medical Sonography is a modality that uses high frequency sound waves to produce images of organs and vascular structures within the body. Sonography is also used extensively in the evaluation of pregnancy and fetal development. Recent advancements in technology have led to increasing use of this imaging specialty as a non-invasive diagnostic tool. This 16-month program prepares students to perform sonographic examinations in hospitals, clinics, and imaging centers. Graduates are eligible to apply to take the certification examinations offered by the American Registry of Diagnostic Medical Sonographers. Technologists currently employed in Sonography may seek enrollment in the "classroom only" portions of the program, if desired.

Admission to the Program: Selective

Eligibility Requirements

1. Graduation from high school or equivalent.

2. Allied Health Education in Radiologic Technology:

   • Graduate of a nationally accredited Radiologic Technology program in the United States with a 2.7 or higher cumulative GPA on a 4.0 scale Post-secondary course work equivalent to General Physics, Human Anatomy or Anatomy & Physiology, Medical Terminology, Biomedical Ethics, and patient care must be documented. In addition two years of high school Algebra or MAT 099 must be documented.

   NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.

OR

Other Allied Health Education

   • Graduates of a nationally accredited 24-month patient care-related allied health program in the United States with a 2.7 or higher cumulative GPA on a 4.0 scale. Examples of eligible professionals include Radiation Therapy, Nuclear Medicine, Associate Degree Nursing, Physical Therapy, and Respiratory Therapy. Post-secondary course work equivalent to General Physics (PHY 151 & 152), Anatomy & Physiology (BIO 211 & 212), Medical Terminology (MDT 100), and Biomedical Ethics (PHL 103) & patient care must be documented. In addition two years of high school Algebra or MAT 099 must be documented. NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.

   • Proof of current professional registration, licensure, or certification is required.

OR

Baccalaureate Degree:

   • Baccalaureate degree from a regionally accredited United States college or university, or equivalent as evaluated by a formal credentials evaluation mechanism with a 2.7 or higher cumulative GPA on a 4.0 scale.

   • Post-secondary course work equivalent to General Physics (PHY 151 & 152), Anatomy & Physiology (BIO 211 & 212), Medical Terminology (MDT 100), Biomedical Ethics (PHL 103) must be documented. In addition, two years of high school Algebra or MAT 099 and 100 hours of extensive, direct patient care must be documented. NOTE: Students who are required to have Anatomy and Physiology I and II must complete both of these courses at the same institution in order to receive credit for these courses.

   • Sonography program curriculum does not include basic patient care course work due to the program length and concentrated sonography curriculum. Direct patient care experience is necessary to ensure a level of proficiency needed to be successful in the program. The didactic component of the program requires the candidate to focus specifically on sonography-related skills and, therefore, basic patient care skills are required upon admission.

   • Patient care course requirements may be met by satisfactory completion of EMT 101.

   • Clinical experience must involve recent (within 5 years) extensive direct patient contact of at least 100 hours. Submission of a Verification of Patient Care Experience form with your direct supervisor's contact information is required for the application process.

Admission Requirements

1. Complete a general application for admission to the College - http://www.sandburg.edu/admissions/steps-enroll

2. Submit official transcripts from high school and all post-secondary educational institutions.

3. Complete HOBET, including the areas of Reading Skills and Math Skills (testing must be within six months of the appropriate application deadline).

4. Submit verification of Patient Care Experience form (required from all candidates without an allied health background).

5. Complete an application for the Diagnostic Medical Sonography program (program applications are available from the program advisor).

Program admission is competitive and fulfillment of the basic requirements does not guarantee admission. Class size is limited and is determined by the number of available clinical sites within each community college district. Participating community college districts (in addition to Carl Sandburg College) include: Blackhawk, Heartland, Illinois Central, Illinois Valley, John Wood, Lincoln Land, Parkland, Richland, Sauk Valley, Scott (IA), Southeastern (IA), Spoon River Student selection is based on course work, GPA, and COMPASS scores. From the pool of applicants, those who are considered most qualified for the study and practice of sonography will be admitted. Candidates with A.R.R.T.(R) certification will be given first priority on available classroom and clinical slots. Practicing sonographers seeking formal didactic instruction may seek enrollment in the classroom-only portions of the program, and may enroll with instructor permission without completing the formal application process. Because of the 16-month program length, program start dates alternate between spring and fall sessions. Future program starting dates are:

   • Spring 2015
   • Fall 2016

Application forms and materials for Fall will be accepted February 15 through June 15 for review. Applications will be accepted from May 1 through September 1 for the Spring start in January. Applicants will be
notified in writing within 2 weeks of the deadline of admission status. Students who are admitted to the DMS program must pay a $100 acceptance fee when notified of initial program admission status to guarantee a place in the program. For the student fully admitted to the program, the $100 will be applied towards the first semester tuition. Students who accept their seat and drop for any reason will forfeit their money.

**Notice to Applicants of the Diagnostic Medical Sonography Program:**

Your personal history may affect your ability to be certified as a registered sonographer. The ARDMS reserves the right to take action against an applicant, candidate, or Registrant in case of conviction, plea of guilty or no contest to any crime. If you are presently charged with, or have been convicted or found guilty of or plead no contest to any crime (felony and/or misdemeanor), other than a speeding or parking violation you may wish to seek clarification from the ARDMS as to how it pertains to your circumstances. In addition the application for ARDMS certification asks the following questions: 1. Have you ever been subject to revocation, suspension, or other disciplinary action by a (1) state licensing board, (2) state or Federal agency, (3) national professional association? 2. Are you currently charged with or have you ever been convicted of, or pleaded guilty or no contest to, any crime? A response of “yes” to any of the above may result in a delay or denial of certification. Questions regarding eligibility for ARDMS certification may be directed to:

ARDMS
51 Monroe St. Plaza East One
Rockville, MD 20850-2400
1-800-541-9754


**Advanced Certificate**

**Fall Start**

**First Year**

<table>
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<th>Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>DMS.264</td>
<td>Abdominal Sonography &amp; Superficial Struct</td>
<td>4</td>
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<tr>
<td>DMS.275</td>
<td>Sonography Summer Practicum</td>
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**Second Year**

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<th>Title</th>
<th>Semester Hours</th>
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<tbody>
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<td>DMS.274</td>
<td>Sonography Critique</td>
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<tr>
<td>DMS.282</td>
<td>Vascular Technology</td>
<td>4</td>
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</table>

**Total Program Hours:** 51.0

NOTE: Students enrolled in the Diagnostic Medical Sonography program must complete all DMS and RDT courses with a grade of "C" or better in order to register for subsequent courses and continue in the program.

(Student who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
Diesel Power Technology

Certificate

www.sandburg.edu/academics/diesel-power-technology

The Diesel Power Technology certificate program is designed to provide students with general understanding and skills in diesel mechanics with industrial, transportation and manufacturing applications.

This certificate provides generalized knowledge of diesel engines so program graduates can work as service technicians and mechanics in a variety of maintenance and operational roles in transportation, manufacturing, industrial, and agricultural settings.

Diesel Service Technicians and Mechanics inspect, repair and overhaul buses, trucks and other vehicles with a diesel engines such as bulldozers, cranes, commercial boats, passenger vehicles and pickup trucks. Although employers may only require a high school degree, many look for workers with postsecondary training in diesel engine repair.

- Classes mix hands-on training with classroom instruction
- $40,800/year median wage for technicians & mechanics*
- Locomotive engine will be used in lab

Admission to the Programs: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>DTT.107 Engine Systems Locomotive (Engine Systems Locomotive)</td>
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<tr>
<td>ELT.100 Electrical Fundamentals</td>
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<td>WEL.100 Welding Theory OFC &amp; OAW</td>
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<td>WEL.102 Metal Preparation</td>
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<td>WEL.109 Oxyacetylene Welding</td>
<td>1</td>
</tr>
<tr>
<td>MAT.101 Technical Mathematics 1</td>
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<table>
<thead>
<tr>
<th>Spring Semester</th>
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</thead>
<tbody>
<tr>
<td>DTT.150 Dealership Management (Dealership Management)</td>
<td>3</td>
</tr>
<tr>
<td>ELT.121 Rail/Off Hiway Motive Power Electrical (Rail/Off Highway Motive Power Electrical Fundamentals)</td>
<td>4</td>
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<tr>
<td>HYD.101 Hydraulics and Pneumatics</td>
<td>3</td>
</tr>
<tr>
<td>WEL.130 Industrial Safety</td>
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<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>WEL.107</td>
<td>Welding Theory Basic GMAW</td>
</tr>
<tr>
<td>WEL.118</td>
<td>Gas Shielded Arc-MIG 1</td>
</tr>
<tr>
<td>WEL.119</td>
<td>Gas Shielded Arc-MIG 2</td>
</tr>
</tbody>
</table>

Total Program Hours: 30.0

Note: Students in the Diesel Power Technology program must complete all DTT, ELT, and WEL courses with a grade of C or better to register for subsequent courses and continue in the program. In order to graduate, students must complete all DTT, ELT and WEL courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
E-Business

Associate in Applied Science

This curriculum is intended for persons who desire a career with an Internet based company or a company with an online shopping presence. Those who successfully complete this degree will be able to work in a wide variety of business fields involving electronic trade. E-Business graduates will be skilled in web design, marketing, advertising, and business law specific to Internet business.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu
309-345-3500

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>BOC.107</td>
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Fall Semester

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<tbody>
<tr>
<td>GCP.143</td>
<td>Introduction to Web Design</td>
<td>3</td>
</tr>
<tr>
<td>BUS.100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>BUS.110</td>
<td>Introduction to E-Business</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENG.102</td>
<td>Freshman Composition 2</td>
<td>3</td>
</tr>
<tr>
<td>SPE.110 or</td>
<td>Interpersonal Communication</td>
<td>3</td>
</tr>
<tr>
<td>SPE.120</td>
<td></td>
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<tr>
<td>BUS.101</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>CIS.146</td>
<td>Microcomputer Database Applications 1</td>
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<tr>
<td>CIS.247</td>
<td>Microcomputer Database Applications 2</td>
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<tr>
<td>CIS.116</td>
<td>Website Support</td>
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Second Year

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ACC.101</td>
<td>Principles of Financial Accounting 3</td>
</tr>
<tr>
<td>BOC.100,</td>
<td>Business Mathematics 3</td>
</tr>
<tr>
<td>SSC.120, or</td>
<td></td>
</tr>
<tr>
<td>MAT.131</td>
<td></td>
</tr>
<tr>
<td>CIS.124</td>
<td>Foundations of Information Technology 3</td>
</tr>
<tr>
<td>CIS.180</td>
<td>Windows Network &amp; Operating Systems 3</td>
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<tr>
<td>BUS.120</td>
<td>Innovative Business Technology 3</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC.102</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
</tbody>
</table>
Emergency Medical Services-Paramedic

Certificate

www.sandburg.edu/academics/emergency-medical-services-paramedic

Emergency Medical Services-Paramedic Certificate program is designed to prepare individuals to become an entry-level paramedic in the state of Illinois.

The Emergency Medical Technician program at Carl Sandburg College is designed to prepare the graduate to administer care to the sick and injured in emergency situations. Graduates are employed primarily by ambulance companies, fire departments, and in the clinical setting. Upon successful completion of the basic course, the graduate will be eligible to take the registry examination. Clinical experiences for the EMT-P program will be gained with community agencies and ambulance services in the Galesburg area. Upon completion of the EMT-P program, the student is required to have complete additional internship which will be arranged through the EMS Coordinator. This internship must be completed within one year after completion of the coursework and prior to sitting for the licensure exam offered by the Illinois Department of Public Health, EMS Division.

- $30,300/year median salary*
- Projected increase of 70%, one of the fastest growing fields in the U.S.*
- Evening classes offered
- Classes mix hands-on training

Admission to the Program: Limited

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

First Year

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EMS.101</td>
<td>Emergency Medical Technician-B</td>
<td>8</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
<td>3</td>
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Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIO.211</td>
<td>Anatomy &amp; Physiology 1</td>
<td>4</td>
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<tr>
<td>EMS.110</td>
<td>Fundamentals of Paramedic</td>
<td>2</td>
</tr>
<tr>
<td>EMS.112</td>
<td>Paramedic 1</td>
<td>2</td>
</tr>
<tr>
<td>EMS.115</td>
<td>Paramedic Practice 1</td>
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Second Year

Spring Semester

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<thead>
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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EMS.120</td>
<td>Paramedic II</td>
<td>2</td>
</tr>
<tr>
<td>EMS.125</td>
<td>Paramedic Practice 2</td>
<td>2</td>
</tr>
<tr>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EMS.210</td>
<td>Paramedic V</td>
<td>2</td>
</tr>
<tr>
<td>EMS.215</td>
<td>Paramedic Practice 5</td>
<td>6</td>
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Fall Semester

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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIO.212</td>
<td>Anatomy &amp; Physiology 2</td>
<td>4</td>
</tr>
<tr>
<td>EMS.130</td>
<td>Paramedic III</td>
<td>2</td>
</tr>
<tr>
<td>EMS.135</td>
<td>Paramedic Practice 3</td>
<td>2</td>
</tr>
<tr>
<td>EMS.200</td>
<td>Paramedic IV</td>
<td>2</td>
</tr>
<tr>
<td>EMS.205</td>
<td>Paramedic Practice 4</td>
<td>2</td>
</tr>
<tr>
<td>SPE.110 or SPE.120</td>
<td>Interpersonal Communication</td>
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</table>

Total Program Hours: 69.0

Note: Students enrolled in the Emergency Medical Services-Paramedic program must complete all EMS courses with a grade of C or better in order to register for subsequent courses and continue in the program. In order to graduate students must complete all EMS courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)

Certificate

First Year

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EMS.101</td>
<td>Emergency Medical Technician-B</td>
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Fall Semester

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>EMS.110</td>
<td>Fundamentals of Paramedic</td>
<td>2</td>
</tr>
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<td>EMS.112</td>
<td>Paramedic 1</td>
<td>2</td>
</tr>
<tr>
<td>EMS.115</td>
<td>Paramedic Practice 1</td>
<td>2</td>
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<tr>
<td>EMS.120</td>
<td>Paramedic II</td>
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<tr>
<td>EMS.125</td>
<td>Paramedic Practice 2</td>
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Second Year

Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EMS.130</td>
<td>Paramedic III</td>
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</tr>
<tr>
<td>EMS.135</td>
<td>Paramedic Practice 3</td>
<td>2</td>
</tr>
<tr>
<td>EMS.200</td>
<td>Paramedic IV</td>
<td>2</td>
</tr>
<tr>
<td>EMS.205</td>
<td>Paramedic Practice 4</td>
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Summer Session

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EMS.210</td>
<td>Paramedic V</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>EMS.215</td>
<td>Paramedic Practice 5</td>
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Total Program Hours: 34.0

Note: Students enrolled in the Emergency Medical Services-Paramedic program must complete all EMS courses with a grade of C or better in order to register for subsequent courses and continue in the program. In order to graduate students must complete all EMS courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
Health Information Management Technician

Associate in Applied Science

www.sandburg.edu/academics/health-information-management-technician

The Health Information Management A.A.S. degree program prepares students to collect, manage and maintain health records for various medical facilities, both in paper and electronic formats. Given the increase in use of electronic health records software, as well as security and privacy practices, the graduate will be prepared to manage and use health information to serve patients by managing communication between health care facilities and insurance providers. They help to organize and manage this data to ensure its quality, accuracy, accessibility and security, using a variety of systems to maintain patient information, databases and registries, and medical and treatment histories.

Graduates will be prepared to be able to review patient records for timeliness, completeness, accuracy and appropriateness of health data; organize and maintain data for clinical databases and registries; track patient outcomes for quality assessment; use classification software to assign clinical codes for reimbursement and data analysis; follow best practices for data security; and use information to assist patients by managing communication between health care and insurance providers.

- Field is growing 21%, much faster than other jobs*
- 32,300/year median salary*
* U.S. Bureau of Labor Statistics

Admission to the Programs: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Fall Semester</td>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
<td>3</td>
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<tr>
<td></td>
<td>MDT.100</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>HIM.100</td>
<td>Introduction to Health Information Mgmt (Introduction to Health Information Management)</td>
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<tr>
<td></td>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
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<tr>
<td></td>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
<td>3</td>
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<tr>
<td></td>
<td>AOP.101</td>
<td>Keyboarding &amp; Formatting 1</td>
<td>3</td>
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Second Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AOP.130</td>
<td>Electronic Health Records</td>
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<tr>
<td>AOP.203</td>
<td>Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BIO.211</td>
<td>Anatomy &amp; Physiology 1</td>
<td>4</td>
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<td>MDC.102</td>
<td>Medical Coding Cpt</td>
<td>3</td>
</tr>
<tr>
<td>BOC.102</td>
<td>Business Communications</td>
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Spring Semester

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<tr>
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<th>Hours</th>
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<tbody>
<tr>
<td>AOP.234</td>
<td>Insurance &amp; Billing in Medical Office</td>
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<tr>
<td>AOP.231</td>
<td>Advanced Electronic Health Records (Advanced Electronic Health Records)</td>
<td>3</td>
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<tr>
<td>BIO.212</td>
<td>Anatomy &amp; Physiology 2</td>
<td>4</td>
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<td>MDC.101</td>
<td>Medical Coding Icd</td>
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<tr>
<td>SPE.110 or SPE.120</td>
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Summer Session

Health Information Management Technician Practicum

<table>
<thead>
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<th>Course Title</th>
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<tbody>
<tr>
<td>HIM.205</td>
<td>Health Information Mgmt Tech Practicum</td>
<td>3</td>
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</tbody>
</table>

Total Program Hours: 69.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
Home Health Aide

Certificate

The program is designed to prepare individuals to be home health aides providing care for the elderly, convalescents or persons with disabilities at the patient’s home. The student will learn to provide routine individualized healthcare such as change bandages and dressing wounds; perform basic medical checks such as pulse, blood pressure, and temperature; bathing, dressing and grooming of the patient; administration of medications; plan, purchase, prepare or serve meals to the patient or other family members according to a prescribed diet.

First-Time Enrollees

• Complete an application for admission and, if desired, apply for financial aid.
• Send an official high school transcript or GED score report to the Admissions and Records Office.
• Complete the placement exam, COMPASS.
• Meet with an advisor/counselor to select classes and complete the registration process

For more program information contact the Welcome Center
welcomecenter@sandburg.edu
309.345-3500

Home Health Aide

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>ALH.110</td>
<td>Introduction to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIO.111 or BIO.205</td>
<td>Anatomy &amp; Physiology Fundamentals</td>
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</tr>
<tr>
<td>MDT.100</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>NUA.100</td>
<td>Basic Nursing Assistant Training</td>
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Spring Semester

<table>
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<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ALH.120</td>
<td>Medical Law and Ethics</td>
<td>3</td>
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<tr>
<td>NUT.110</td>
<td>Nutrition</td>
<td>3</td>
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<tr>
<td>SPE.110 or SPE.120</td>
<td>Interpersonal Communication</td>
<td>3</td>
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<tr>
<td>PSY.206</td>
<td>The Social Psychology of Aging</td>
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Total Program Hours: 28.5

Note: Students enrolled in the Home Health Aide program must complete ALH, MDT and NUA courses with a grade of “C” or better. In order to graduate, students must complete all ALH, MDT and NUA courses with a grade of C or better.
(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
Legal Office Assistant

Certificate

www.sandburg.edu/academics/legal-office-assistant

This curriculum prepares students with the skills needed for legal office work, including keyboarding, word processing, machine transcription, communications, and specialized legal courses. Graduates are qualified for positions as an assistant in a legal or governmental office.

Admission to the Program: Open

First-Time Enrollees

• Complete an application for admission and, if desired, apply for financial aid.
• Send an official high school transcript or GED score report to the Admissions and Records Office.
• Complete the placement exam, COMPASS.
• Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>AOP.100</td>
<td>Careers for Office Professional</td>
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<tr>
<td>AOP.101</td>
<td>Keyboarding &amp; Formatting 1</td>
<td>3</td>
</tr>
<tr>
<td>AOP.120</td>
<td>Legal Terminology &amp; Concepts</td>
<td>2</td>
</tr>
<tr>
<td>BOC.120</td>
<td>Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>PSY.101 or SOC.101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SPE.110</td>
<td>Interpersonal Communication</td>
<td>3</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>AOP.102</td>
<td>Keyboarding &amp; Formatting 2</td>
<td>3</td>
</tr>
<tr>
<td>AOP.201</td>
<td>Business English</td>
<td>2</td>
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<tr>
<td>AOP.220</td>
<td>Legal Document Processing</td>
<td>3</td>
</tr>
<tr>
<td>BOC.101</td>
<td>Business Records Management</td>
<td>2</td>
</tr>
<tr>
<td>BOC.103</td>
<td>Office Technology</td>
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</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
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</table>

Total Program Hours: 30.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Culbertson, Vickie L
assistant professor, administrative office professional

Hawkinson, Carrie A
assistant professor, administrative office occupations

Higgins, Diana D
Locomotive Electrical

The program is designated to introduce the student to the basic electrical theory and concepts related to locomotive electrical systems, including the operations, maintenance, and troubleshooting of EMD Low Horsepower locomotive electrical systems. Also, it includes the basic operation, maintenance, repair requirements and trouble shooting of EMD diesel engines and support systems, and the GE Dash 8/9 locomotive systems.

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center
welcomecenter@sandburg.edu (admissions@sandburg.edu)
309.345.3500

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRT.101</td>
<td>History of Railroading</td>
<td>3</td>
</tr>
<tr>
<td>RRT.142</td>
<td>Locomotive Electricity</td>
<td>3</td>
</tr>
<tr>
<td>RRT.143</td>
<td>Low Horsepower Electrical</td>
<td>3</td>
</tr>
<tr>
<td>RRT.144</td>
<td>EMD Basic Electrical</td>
<td>3</td>
</tr>
<tr>
<td>RRT.145</td>
<td>GE Dash 8/9 Electrical System</td>
<td>3</td>
</tr>
<tr>
<td>MFG.130</td>
<td>Industrial Safety</td>
<td>2</td>
</tr>
<tr>
<td>HTH.130</td>
<td>First Aid</td>
<td>2</td>
</tr>
<tr>
<td><strong>Total Semesters</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>
Locomotive Mechanical

This program is designated to introduce the student to the basic mechanical theory and concepts related to locomotive electrical systems, including the operations, maintenance, and troubleshooting of EMD and GE diesel engines and support systems. Also, it includes an introduction to the operation, testing, maintenance and trouble shooting for 26L and 30 ACDW locomotive air brake systems. Further, students will get an introduction to the Federal Railway Administration and Department of Transportation Code of Federal Regulations Title 49, Parts 209, 218, 228, 231 and 232.

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu (admissions@sandburg.edu) 309.345.3500

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>RRT.101</td>
<td>History of Railroading</td>
<td>3</td>
</tr>
<tr>
<td>RRT.135</td>
<td>Basic Electro Motive Diesel Mechanical</td>
<td>3</td>
</tr>
<tr>
<td>RRT.136</td>
<td>Basic Ge Mechanical</td>
<td>3</td>
</tr>
<tr>
<td>RRT.137</td>
<td>Locomotive Air Brakes</td>
<td>3</td>
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<td>RRT.138</td>
<td>Locomotive FRA</td>
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<tr>
<td>MFG.130</td>
<td>Industrial Safety</td>
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<tr>
<td>HTH.130</td>
<td>First Aid</td>
<td>2</td>
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<tr>
<td>Total Semester Hours</td>
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</tbody>
</table>
Magnetic Resonance Imaging (MRI)

Advanced Certificate

http://www.sandburg.edu/academics/magnetic-resonance-imaging

Magnetic Resonance Imaging is a specialized imaging modality that utilizes computer technology in conjunction with magnetic fields and radio frequency signals to obtain sectional images in any body plane. MRI's ability to distinguish differences in tissue composition has made it the modality of choice in imaging the central nervous system and a variety of soft tissue structures. This one-semester program prepares radiographers to perform MRI procedures in hospitals and imaging centers. The curriculum covers all subject areas listed in the ARRT Content Specifications for the Post Primary Examination in Magnetic Resonance Imaging.

Admission to these Programs: Selective.

Admission Requirements:

1. If you have never attended Carl Sandburg College, complete a general application for admission to the College - http://www.sandburg.edu/admissions/steps-enroll
2. Submit official transcripts from high school and all post-secondary educational institutions.
3. Graduate from an A. R. R. T. approved radiography program with a 2.5 or higher cumulative G. P. A. on a 4.0 scale.
4. Provide evidence of active registration with the A. R. R. T. or registry-eligible status.
5. Complete the HOBET 5 Test.
   - Reading- 73% or higher
   - Math- 60% or higher
   - Science- 39% or higher
   - English- 50% or higher
   - Total Adjusted Score- 54% or higher
6. Complete an application for the Magnetic Resonance Imaging program. Program application is available through the imaging advisor.

Technologists employed in MRI may seek enrollment in the online classroom-only portions of the program, if desired.

For more information, contact the Program Coordinator, Jan Hipple, 309-341-5311

Program admission is competitive and fulfillment of the basic requirements does not guarantee admission. Class size is limited and is determined by the number of available clinical sites within each community-college district. Participating community college districts (in addition to Carl Sandburg College) include: Blackhawk, Heartland, Illinois Central, Illinois Valley, John Wood, Lincoln Land, Parkland, Richland, Sauk Valley, Scott (IA), Southeastern (IA), and Spoon River.

Applications will be accepted from June 1 through October 1. If necessary, additional review dates may be scheduled. Applicants will be notified by letter by mid-November whether or not they have been accepted in the program.

Licensure

Graduates are eligible to apply to take the American Registry of Radiologic Technologists (ARRT) Post-Examination in Magnetic Resonance Imaging. This certification is nationally recognized.

Accreditation

Carl Sandburg College is accredited through the North Central Association of Colleges and Schools – The Higher Learning Commission, 30 LaSalle Street, Suite 2400, Chicago, IL. 60602-2504.

Department of Career, Technical & Health Education

2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomcenter@sandburg.edu

Advanced Certificate

Program Curriculum

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>RDT.262</td>
<td>Sectional Anatomy for Diagnostic Imaging</td>
<td>3</td>
</tr>
<tr>
<td>MRI.250</td>
<td>MRI Physics &amp; Instrumentation</td>
<td>4</td>
</tr>
<tr>
<td>MRI.252</td>
<td>MR Imaging Procedures</td>
<td>3</td>
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<tr>
<td>MRI.255</td>
<td>MRI Practicum</td>
<td>6</td>
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<tr>
<td>Total Program Requirement</td>
<td></td>
<td>16</td>
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</table>

NOTE: In order to graduate, each student must complete all required courses with a grade of "C" or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
Medical Office Assistant

Certificate

http://www.sandburg.edu/academics/medical-administrative-specialist

Medical Office Assistants perform routine clerical and organizational tasks. They organize files, draft messages, schedule appointments, and support other staff. Carl Sandburg College offers a certificate program designed to prepare students with the skills needed for medical office work, including keyboarding, electronic health records, word processing, medical terminology, medical transcription and communication skills.

Working Conditions: Most medical office assistants work in comfortable office settings. Virtual assistants typically work from a home office.

Employment: Graduates are qualified for office positions in a clinic or hospital, for positions as assistants in a medical office, medical transcriptionists or medical billing/insurance assistants.

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tr>
<td>AOP.100</td>
<td>Careers for Office Professional</td>
<td>1</td>
</tr>
<tr>
<td>AOP.101</td>
<td>Keyboarding &amp; Formatting 1</td>
<td>3</td>
</tr>
<tr>
<td>AOP.130</td>
<td>Electronic Health Records</td>
<td>2</td>
</tr>
<tr>
<td>BOC.101</td>
<td>Business Records Management</td>
<td>2</td>
</tr>
<tr>
<td>BOC.120</td>
<td>Customer Service</td>
<td>2</td>
</tr>
<tr>
<td>PSY.101 or SPE.110 or SPE.120</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC.101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MDT.100</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
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</table>

Spring Semester

<table>
<thead>
<tr>
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<th>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>AOP.102</td>
<td>Keyboarding &amp; Formatting 2</td>
<td>3</td>
</tr>
<tr>
<td>AOP.117</td>
<td>Medical Transcription 1</td>
<td>3</td>
</tr>
<tr>
<td>AOP.201</td>
<td>Business English</td>
<td>2</td>
</tr>
<tr>
<td>AOP.234</td>
<td>Insurance &amp; Billing in Medical Office</td>
<td>3</td>
</tr>
<tr>
<td>CIS.112</td>
<td>Computer Software Applications</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Program Hours: 32.0

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Culbertson, Vickie L
assistant professor, administrative office professional

Hawkinson, Carrie A
assistant professor, administrative office occupations

Higgins, Diana D
assistant professor, administrative office professional/graphic design
associate dean of career technical health education
Medical Assisting

Certificate

http://www.sandburg.edu/academics/medical-assisting

This program prepares students to perform administrative, clinical, and laboratory duties in a variety of health care settings. As one of the fastest growing health care occupations, medical assistants are most commonly employed in medical offices and clinics. Their administrative responsibilities may include front office reception, billing, bookkeeping, basic correspondence, and scheduling of appointments. Clinical duties include taking medical histories, recording vital signs, collecting laboratory specimens, performing basic laboratory tests, taking electrocardiograms, and assisting the physician during the examination and treatment of patients.

Admission to the Program: Limited

Admission information is available at http://www.sandburg.edu/academics/academics

1. If you have never attended Carl Sandburg College, complete an application for general admission to the College, http://www.sandburg.edu/admissions/steps-enroll and, if desired, apply for financial aid.
2. Submit an official high school transcript showing graduation date or copy of GED score report and any appropriate post-secondary educational institutions.
3. Schedule an appointment with the advisor for the Medical Assisting program.
4. Complete the following courses with a “C” or better:
   • Medical Terminology - MDT.100
   • Anatomy & Physiology Fundamentals - BIO.111
   • Keyboarding & Computer Essentials - CIS.105
5. Complete the HOBET V.
6. Complete an application for admission to the Medical Assisting program. Applications are available from the program advisor.

Students interested in this program may complete HTH.130 (First Aid/CPR) before going through the application process.

Admission is competitive. Only the most qualified applicants are admitted. Applications will be accepted June 1 until the October 1 deadline for the January start date. If necessary, additional review dates may be scheduled. Applicants will be notified in writing within two weeks of the deadline of admission status.

NOTE: This program requires a criminal background check, health evaluation including proof of immunity, 10-panel drug screen and CPR certification. Findings on the criminal background check may void the conditional admission and prevent entrance to the program. Findings on the health evaluation and drug screen may prevent placement at the clinical site. Details for these requirements are presented at the mandatory meeting held prior to the start of the program.

Department of Career, Technical & Health Education
welcomecenter@sandburg.edu
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500

Certificate

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course Code</th>
<th>Course Name</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Spring Semester</td>
<td>MDA.100</td>
<td>Fundamentals of Medical Assisting</td>
<td>2</td>
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<tr>
<td></td>
<td>MDA.101</td>
<td>Intro to Management of Medical Office</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>MDA.110</td>
<td>Adm Procedures in Medical Assisting</td>
<td>4</td>
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<tr>
<td></td>
<td>MDA.115</td>
<td>Clinical Medical Assisting 1</td>
<td>5</td>
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<tr>
<td></td>
<td>HTH.130</td>
<td>First Aid</td>
<td>2</td>
</tr>
<tr>
<td>Summer Session</td>
<td>MDA.125</td>
<td>Clinical Medical Assisting 2</td>
<td>4</td>
</tr>
<tr>
<td>Fall Semester</td>
<td>MDA.112</td>
<td>Pharmacology &amp; Medication Administration</td>
<td>2</td>
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<tr>
<td></td>
<td>MDA.120</td>
<td>Financial Procedures in the Medical Off.</td>
<td>4</td>
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<td>MDA.127</td>
<td>Clinical Laboratory Procedures (1st 8 weeks)</td>
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<td></td>
<td>MDA.200</td>
<td>Management of the Medical Office</td>
<td>1</td>
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<tr>
<td></td>
<td>MDA.205</td>
<td>Medical Assisting Practicum (2nd 8 weeks)</td>
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<td></td>
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<td><strong>Total Program Hours:</strong></td>
<td>31.0</td>
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</table>

NOTE: Students enrolled in the Medical Assisting program must complete all MDA and BIO courses with a grade of "C" or better in order to be eligible to register for subsequent courses. In order to graduate, students must complete all required courses with a grade of "C" or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
Mortuary Science

Associate in Applied Science Degree and Accelerated Program

http://www.sandburg.edu/academics/mortuary-science

Carl Sandburg College offers both a traditional and an accelerated associate degree program for students interested in a career in mortuary science.

Mortuary Science Associate in Applied Science Degree and Mortuary Science Accelerated Option -- Carl Sandburg College offers both a traditional and an accelerated associate degree program for students interested in a career in mortuary science.

Mortuary Science Program Aims and Objectives -- prepares students to serve within the funeral service profession, adheres to the institutional commitment to student success in both human development and achievement of educational goals. This challenge is met by educating students in all phases of funeral service, with special attention being given to the high ethical standards within the funeral service profession. These goals are accomplished through a wide variety of educational experiences aimed at developing the many skills needed in order to successfully serve within the funeral service profession. This curriculum is based upon the American Board of Funeral Service Education curriculum outlines. Several of the mortuary science classes require some outside work as well as research about various aspects of the funeral service profession. Upon completion of the mortuary science program, each graduate will have attained those skills necessary to uphold and foster the dignity of the funeral service profession.

Nature of the Work

Funeral directors arrange the details and handle the logistics of funerals. They interview the family to learn what they desire with regard to the nature of the funeral, the clergy members or other persons who will officiate and the final disposition of the remains. Sometimes the deceased leave detailed instructions for their own funerals. Together with family members, funeral directors establish the location, dates and times of wakes, memorial services and burials. Funeral directors also prepare obituary notices and have them placed in newspapers, arrange for pallbearers and clergy, schedule the opening and closing of a grave with the cemetery, decorate and prepare the sites of all services and provide transportation for the remains, mourners and flowers between sites. Most funeral directors are also trained and licensed embalmers. Embalming is the cosmetic and preservative process through which the body is prepared for interment.

Employment Opportunities

Opportunities are excellent with many openings in the funeral service profession. Those include, but are not limited to: funeral directors, embalmers, grief facilitators, and pre-need sales. Most funeral homes are family-run businesses, and the funeral directors either are owner operators or employees of the operation.

Admission Requirements

The Mortuary Science program has specific admission requirements and a separate application process. Students who have successfully completed all of the prerequisite courses contained within the mortuary science program course of study are eligible for the accelerated option. Students must apply and be accepted into the program in order to enroll.

Completed applications may be submitted beginning Oct. 1 every year for classes that start the next academic year. Admission to the program is on a rolling basis, but new students are only admitted for the fall semester each year. Mortuary science admission requirements are:

1. Meet admission requirements of Sandburg
2. Complete all general education courses
3. Complete an application for the mortuary science program
4. High school graduate or GED completer
5. Submit transcript or GED scores to Sandburg
6. Submit proof of interview with a licensed funeral director

Enrollment in the program is limited to a specific number of students due to accreditation requirements. The accelerated program is designed to meet the needs of those applicants who have already attained the necessary educational requirements in order to complete the required Mortuary Science major courses in a two-semester sequence. Students who enroll in the program must earn a minimum grade of "C" (2.0 on a 4.0 scale) in all courses required in the mortuary science program. Failure to attain these grade requirements will result in dismissal from the program with an option to reapply to the program only available on a one-time basis.

Additional Requirements

The Hepatitis B vaccination must be received prior to being allowed to attend certain laboratory assignments. It is the student’s responsibility to arrange and pay for this requirement. Also, students are expected to purchase required clothing or protective equipment used in the program.

Additional living and incidental expenses should be expected by the student.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu
309-345-3500

Associate in Applied Science

First Year

Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
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Fall Semester

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<thead>
<tr>
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<th>Title</th>
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<tbody>
<tr>
<td>MTS.150</td>
<td>Psychology of Grief &amp; Death</td>
<td>3</td>
</tr>
<tr>
<td>BIO.111</td>
<td>Anatomy &amp; Physiology Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>CHM.100</td>
<td>Concepts of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>MTS.110</td>
<td>History of Mortuary Science</td>
<td>3</td>
</tr>
<tr>
<td>MTS.120</td>
<td>Mortuary Law</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>MTS.130</td>
<td>Introduction to Microbiology - Mort Sci</td>
<td>2</td>
</tr>
<tr>
<td>MTS.131</td>
<td>Introduction to Pathology-Mortuary Sci</td>
<td>2</td>
</tr>
<tr>
<td>MTS.210</td>
<td>Funeral Service Counseling</td>
<td>4</td>
</tr>
<tr>
<td>BUS.201</td>
<td>Management Fundamentals</td>
<td>3</td>
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<tr>
<td>ACC.101</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
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<tr>
<td>BLA.202</td>
<td>Business Law</td>
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Second Year

Fall Semester

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>MTS.140</td>
<td>Embalming 1</td>
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</tr>
<tr>
<td>MTS.160</td>
<td>Funeral Service Administration</td>
<td>5</td>
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</table>
MTS.170 Restorative Art 4
MTS.215 Introduction-Mass Fatalities Incidents 2
MTS.225 Thanatochemistry 3

**Spring Semester**

MTS.220 Funeral Directing (First 8-Week Session) 4
MTS.230 Embalming 2 (First 8-Week Session) 4
MTS.240 Funeral Service Seminar (First 8-Week Session) 1
MTS.250 Funeral Service Practicum (Second 8-Week Session) 3
MTS.260 Restorative Arts/Embalming Practicum (Second 8-Week Session) 3
MTS.270 Exam Review Seminar (Second 8-Week Session) 1

Total Program Hours: 70.0

NOTE: Students enrolled in the Mortuary Science program must complete all MTS courses with a grade of "C" or better in order to be eligible to register for subsequent courses. In order to graduate, students must complete all required courses with a grade of "C" or better.

(Student who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Kendall, Matthew R
assistant professor, mortuary science

Krause, Timothy J
associate professor, mortuary science coordinator of mortuary science

---

**Optional Accelerated Program of Study for Mortuary Science**

**First Year**

**Fall Semester**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>MTS.150</td>
<td>Psychology of Grief &amp; Death</td>
<td>3</td>
</tr>
<tr>
<td>MTS.110</td>
<td>History of Mortuary Science</td>
<td>3</td>
</tr>
<tr>
<td>MTS.120</td>
<td>Mortuary Law</td>
<td>3</td>
</tr>
<tr>
<td>MTS.140</td>
<td>Embalming 1</td>
<td>4</td>
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<tr>
<td>MTS.160</td>
<td>Funeral Service Administration</td>
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<tr>
<td>MTS.170</td>
<td>Restorative Art</td>
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<tr>
<td>MTS.215</td>
<td>Introduction-Mass Fatalities Incidents</td>
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</tr>
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<td>MTS.225</td>
<td>Thanatochemistry</td>
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**Spring Semester**

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<td>MTS.130</td>
<td>Introduction to Microbiology - Mort Sci (First 8-Week Session)</td>
<td>2</td>
</tr>
<tr>
<td>MTS.131</td>
<td>Introduction to Pathology-Mortuary Sci (First 8-Week Session)</td>
<td>2</td>
</tr>
<tr>
<td>MTS.210</td>
<td>Funeral Service Counseling (First 8-Week Session)</td>
<td>4</td>
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<tr>
<td>MTS.220</td>
<td>Funeral Directing (First 8-Week Session)</td>
<td>4</td>
</tr>
<tr>
<td>MTS.230</td>
<td>Embalming 2 (First 8-Week Session)</td>
<td>4</td>
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<tr>
<td>MTS.240</td>
<td>Funeral Service Seminar (First 8-Week Session)</td>
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<tr>
<td>MTS.250</td>
<td>Funeral Service Practicum (Second 8-Week Session)</td>
<td>3</td>
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<tr>
<td>MTS.260</td>
<td>Restorative Arts/Embalming Practicum (Second 8-Week Session)</td>
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<tr>
<td>MTS.270</td>
<td>Exam Review Seminar (Second 8-Week Session)</td>
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</table>

Total Program Hours: 51.0

NOTE: Students enrolled in the Mortuary Science program must complete all MTS courses with a grade of "C" or better in order to be eligible to
Nuclear Medicine Technology

Advanced Certificate

http://www.sandburg.edu/academics/nuclear-medicine-technology

Nuclear Medicine employs the administration of small quantities of radiopharmaceuticals in order to evaluate the structure and function of an organ or system. Nuclear medicine excels in its ability to identify abnormalities very early in the progression of a disease, often before the medical problem may be apparent on other diagnostic tests. This 12-month program prepares radiographers to perform nuclear medicine procedures in hospitals, clinics, and imaging centers. The number of students admitted each year varies depending on available clinical sites. The Nuclear Medicine Technology program requires a college degree prior to enrollment.

Licensure

Graduates are eligible to apply to take the ARRT Post-Examination in Nuclear Medicine. This certification is nationally recognized and enables the student to pursue employment throughout the U.S.

Admission

1. If you have never attended Carl Sandburg College, complete a general application for admission to the College - http://sandburg.edu/admissions/steps-enroll
2. Submit official transcripts from high school and all post-secondary educational institutions.
3. Completion of post-secondary coursework with a “C” or better in the following subjects
   • Human Anatomy and Physiology
   • Physics
   • Algebra
   • Medical terminology
   • Computer applications
   • Written communications
   • Oral communications
   • Chemistry
4. Graduate from an ARRT approved radiography program with a 2.5 or higher cumulative G.P.A. on a 4.0 scale.
5. Provide evidence of active registration with the A.R.R.T. or registry-eligible status.
6. Complete the HOBT V Test.
   • Reading- 73% or higher
   • Math- 60% or higher
   • Science- 39% or higher
   • English- 50% or higher
   • Total Adjusted Score- 54% or higher
7. Complete an application for the Nuclear Medicine program. Program applications are available through the program advisor.

Program admission is competitive and fulfillment of the basic requirements does not guarantee admission. Class size is limited and is determined by the number of available clinical sites within each community-college district. Participating community college districts (in addition to Carl Sandburg College) include: Blackhawk, Heartland, Illinois Central, Illinois Valley, John Wood, Lincoln Land, Parkland, Richland, Sauk Valley, Scott (IA), Southeastern (IA), and Spoon River.

Applications forms and materials will be accepted from February 15 through June 15.

Accreditation

Carl Sandburg College is accredited through the North Central Association of Colleges and Schools – The Higher Learning Commission, 30 LaSalle Street, Suite 2400, Chicago, IL 60602-2504.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Advanced Certificate

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NMT.250</td>
<td>Physics of Nuclear Medicine Technology</td>
<td>2</td>
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<td>NMT.252</td>
<td>Nuclear Medicine Procedures 1</td>
<td>3</td>
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<tr>
<td>NMT.254</td>
<td>Nuclear Medicine Instrumentation 1</td>
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<td>NMT.255</td>
<td>Nuclear Medicine Practicum 1</td>
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Spring Semester

<table>
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</thead>
<tbody>
<tr>
<td>NMT.260</td>
<td>Radiopharmacology</td>
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<tr>
<td>NMT.262</td>
<td>Nuclear Medicine Procedures 2</td>
<td>3</td>
</tr>
<tr>
<td>NMT.264</td>
<td>Nuclear Medicine Instrumentation 2</td>
<td>2</td>
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<td>NMT.265</td>
<td>Nuclear Medicine Practicum 2</td>
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Summer Session

<table>
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<tr>
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<tbody>
<tr>
<td>NMT.272</td>
<td>Adv Nuclear Med Procedures &amp; Technique</td>
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<tr>
<td>NMT.275</td>
<td>Nuclear Medicine Practicum 3</td>
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</table>

Total Program Hours: 34.0

NOTE: Students enrolled in the Nuclear Medicine program must complete all NMT courses with a grade of “C” or better in order to register for subsequent courses and continue in the program.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Whipple, Jackie D.
instructor, radiologic technology
Nursing (R.N.)

Associate Degree

http://www.sandburg.edu/academics/associate-degree-nursing

Carl Sandburg College offers a two-year Associate Degree in Nursing. The student is prepared to function within roles of manager of care, provider of care, and member within the discipline of nursing. Clinical experience is provided at area hospitals, extended care facilities, and many other community-based health care agencies.

Registered nurses work to promote health, prevent disease, and help patients recover from and cope with illness. Nurses are taught to assess, diagnose, plan, implement and evaluate care to patients; assist physicians with treatments and examinations; administer medications; and assist in convalescence and rehabilitation. Nurses also provide patient education to clients and families to help improve or maintain the optimum level of health. Other settings that employ nurses include: ambulatory care offices and clinics, long-term care facilities, home health agencies, public health facilities, schools, churches, informatics, correctional facilities and hospital settings.

Working Conditions

Most health care facilities provide a safe and comfortable working environment. Care is required around the clock, often in 8- or 12-hour shifts, weekends and holidays, and may involve on-call work. Schools, offices, and clinics offer more traditional work hours.

Employment

The demand for nurses is very high and is expected to increase.

Accreditation/Approval

The Associate Degree Nursing program is fully accredited by the Accreditation Commission for Education in Nursing (ACEN) and Approved by the Illinois State Board of Nursing, Department of Professional Regulation.

Licensure

Graduates may apply to write for the National Council Licensing Examination-RN. Upon successful completion of this exam, the student is eligible to apply for Registered Nurse licensure in any state. Please be advised that nursing licenses may be denied or disciplined by the Illinois State Board of Nursing (ISBN). All criminal history must be revealed at time of licensure application and will be evaluated by the ISBN before licensure is granted or denied. All regulations can be accessed at www.idfpr.com.

Admission

Admission to the program is competitive and selection is based on a point system. All prospective students for the Associate Degree Nursing program must meet the current admission requirements before their application will be considered for review and conditional admission. The most qualified applicants who are residents of the Carl Sandburg College district will be given preference for admission to the program. (See LPN-RN admission requirements).

Number of students admitted each year:

1st year RN (Day section only): 30
2nd year RN Day Section: 30, Evening Section: 20

For additional program information contact the Welcome Center
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Associate Degree

First Year

Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>NUA.100</td>
<td>Basic Nursing Assistant Training †</td>
<td>7.5</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
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</table>

Admission to the Associate Degree Nursing Program. Placement on the Illinois Health Care Worker Registry as a CNA in good standing by the end of the fall semester is required.

Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>NAD.105</td>
<td>Introduction to Professional Nursing</td>
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<td>PSY.101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>BIO.211</td>
<td>Anatomy &amp; Physiology 1</td>
<td>4</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD.125</td>
<td>Nursing Care-Individuals Health Problems</td>
<td>10</td>
</tr>
<tr>
<td>NUT.110</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>BIO.212</td>
<td>Anatomy &amp; Physiology 2</td>
<td>4</td>
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Second Year

Summer Session

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>BIO.200</td>
<td>General Microbiology</td>
<td>4</td>
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<tr>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
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Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
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</thead>
<tbody>
<tr>
<td>NAD.200</td>
<td>Nurse Care of Ind &amp; Fam W/Hlth Problems</td>
<td>10</td>
</tr>
<tr>
<td>PSY.265</td>
<td>Developmental Psychology</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAD.210</td>
<td>Nurse Care of Ind Fam &amp; Group</td>
<td>10</td>
</tr>
<tr>
<td>NAD.220</td>
<td>Professional Issues</td>
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<tr>
<td>PHL.103</td>
<td>Biomedical Ethics</td>
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</table>

Total Program Hours: 77.5

* NUA.100 Basic Nursing Assistant Training and all BIO and NAD courses must be completed with a grade of "C" or better by the end of the scheduled semester in order to progress in the program. In order to graduate, each student must complete all required courses with a grade of "C" or better.

Note: LPN to RN articulation — LPN students are eligible to enter 2nd year summer session after completion of NAD.180 LPN to RN Transition and meeting all admission requirements for the Associate Degree Program.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Lundeen, Jan M
associate professor, nursing

Pence, Mary
instructor, nursing

Seiboldt, Susan M
assistant professor, nursing

Stone, Christina S
instructor, nursing

Weaver, Mischelle
Associate Dean of Nursing
Pipe Welder Specialist

Certificate

http://www.sandburg.edu/academics/pipe-welder

The Pipe Welder Specialist Certificate program is a two-semester program designed to provide students a hands-on specialty welding certificate that emphasizes training and the mastery of welding techniques in pipe welding. Students will specialize in ARC and TIG welding and build skill proficiencies aligned with American Welding Society Level II Welder Standards.

Industrial & Manufacturing

Area industrial leaders, Carl Sandburg College, and the Galesburg Business and Technology Center have joined forces to provide state-of-the-art industrial training. The Center for Manufacturing Excellence (CME) offers a variety of industrial training opportunities for employees of area industries, as well as for the general public. The 30,000-square-foot Center for Manufacturing Excellence facility is located on the Main Campus of Carl Sandburg College in Galesburg to house short-term and long-term industrial training programs and a manufacturing incubator. Cutting-edge technology will allow companies to meet their customers’ needs and demands.

Long-term Benefits:
- Increased labor pool to replace retiring workers
- Increased selection for new hires
- Overall increased quality of work force
- Overall increased quality of manufacturing in western Illinois
- Increased technical expertise of existing work force

Admission to the Program: Open

First-Time Enrollees
- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Certificate

Fall Start
First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
</tr>
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<tbody>
<tr>
<td>WEL.100</td>
<td>Welding Theory OFC &amp; OAW</td>
<td>1</td>
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<tr>
<td>WEL.102</td>
<td>Metal Preparation</td>
<td>1</td>
</tr>
<tr>
<td>WEL.109</td>
<td>Oxyacetylene Welding</td>
<td>1</td>
</tr>
<tr>
<td>WEL.104</td>
<td>Welding Theory Basic SMAW</td>
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Spring Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>WEL.107</td>
<td>Welding Theory Basic GMAW</td>
<td>1</td>
</tr>
<tr>
<td>WEL.118</td>
<td>Gas Shielded Arc-MIG 1</td>
<td>1</td>
</tr>
<tr>
<td>WEL.119</td>
<td>Gas Shielded Arc-MIG 2</td>
<td>1</td>
</tr>
<tr>
<td>WEL.151</td>
<td>Introduction to Pipe Welding 1G Rolled</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.152</td>
<td>Pipe Welding 2G Horizontal</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.153</td>
<td>Pipe Welding 5G Vertical</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.154</td>
<td>Pipe Welding 6G Inclined</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.125</td>
<td>Welding Blueprints</td>
<td>2</td>
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<tr>
<td>WEL.130</td>
<td>Industrial Safety</td>
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<td>ENG.101 or</td>
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<tr>
<td>RDG.120</td>
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Total Program Hours: 33.0

Spring Start

First Year
Spring Semester

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WEL.100</td>
<td>Welding Theory OFC &amp; OAW</td>
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<td>WEL.102</td>
<td>Metal Preparation</td>
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</tr>
<tr>
<td>WEL.109</td>
<td>Oxyacetylene Welding</td>
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<tr>
<td>WEL.104</td>
<td>Welding Theory Basic SMAW</td>
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<tr>
<td>WEL.111</td>
<td>Arc Welding Basic 1</td>
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<td>WEL.112</td>
<td>Arc Welding Basic 2</td>
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<td>WEL.105</td>
<td>Welding Theory Advanced SMAW</td>
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<td>WEL.114</td>
<td>Arc Welding Advanced 1</td>
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<td>WEL.115</td>
<td>Arc Welding Advanced 2</td>
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<tr>
<td>WEL.106</td>
<td>Welding Theory GTAW</td>
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<tr>
<td>WEL.116</td>
<td>Gas Shielded Arc-TIG 1</td>
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<tr>
<td>WEL.117</td>
<td>Gas Shielded Arc-TIG 2</td>
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<tr>
<td>MTL.103</td>
<td>Manufacturing Processes</td>
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<td>RDG.120</td>
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Fall Semester

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>WEL.107</td>
<td>Welding Theory Basic GMAW</td>
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<tr>
<td>WEL.118</td>
<td>Gas Shielded Arc-MIG 1</td>
<td>1</td>
</tr>
<tr>
<td>WEL.119</td>
<td>Gas Shielded Arc-MIG 2</td>
<td>1</td>
</tr>
<tr>
<td>WEL.151</td>
<td>Introduction to Pipe Welding 1G Rolled</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.152</td>
<td>Pipe Welding 2G Horizontal</td>
<td>1.5</td>
</tr>
<tr>
<td>WEL.153</td>
<td>Pipe Welding 5G Vertical</td>
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<tr>
<td>WEL.154</td>
<td>Pipe Welding 6G Inclined</td>
<td>1.5</td>
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<tr>
<td>WEL.125</td>
<td>Welding Blueprints</td>
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<tr>
<td>WEL.130</td>
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<td>MAT.101</td>
<td>Technical Mathematics 1</td>
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<td></td>
<td><strong>Total Program Hours:</strong></td>
<td><strong>33.0</strong></td>
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(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

**Johnson, Craig A**

instructor, welding
Practical Nursing (L.P.N.)

Certificate
http://www.sandburg.edu/academics/practical-nursing

Practical Nursing (L.P.N.)
Carl Sandburg College offers a certificate in Practical Nursing designed to prepare practical nurses to function under the direction of a licensed professional in an ever-changing health care environment in a variety of health care settings. The student is prepared to function within the nursing roles of provider of care, manager of care, and member within the discipline of nursing in structured health care settings. Clinical experience is provided at hospitals, nursing homes, and community health organizations in several of the surrounding counties.

Licensed Practical Nurse
Assist in the assessment, planning, implementation, and evaluation of patients. The LPN provides basic bedside and personal care to clients in acute and long-term facilities. LPNs are prepared to perform treatments and administer medications as directed.

Working Conditions
Most health care facilities provide a safe and comfortable working environment. Working hours may include various shifts; including 8 or 12 hours, weekends, and holidays. Schools, offices, and clinics may offer more traditional hours.

Employment
The demand for licensed practical nurses is very high and is likely to increase. As life expectancy increases so too, is the need for health care providers to meet the demands of an aging population.

Accreditation/Approval
The Practical Nursing program is fully accredited by the Accreditation Commission for Education in Nursing (ACEN) and Approved by the Illinois State Board of Nursing, Department of Professional Regulation.

Licensure
Graduates may apply to write for the National Council Licensing Examination-NCLEX-PN. Upon successful completion of this exam, the student is eligible to apply for Practical Nurse licensure in any state.

Please be advised that nursing licenses may be denied or disciplined by the Illinois State Board of Nursing (ISBN). All criminal history must be revealed at time of licensure application and will be evaluated by the ISBN before licensure is granted or denied. All regulations can be accessed at www.idfpr.com.

Admission
Admission to the program is competitive and selection is based on a point system. All prospective students for the Practical Nursing program must submit admission materials and meet current admission requirements before their applications will be considered for review for conditional admission. The most qualified applicants who are residents of the Carl Sandburg College district will be given preference for admission to the program.

Number of students admitted each year:
Day section: 30

College of Nursing
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu
309-345-3500

Certificate

First Year
Summer Session

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>NUA.100</td>
<td>Basic Nursing Assistant Training *</td>
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<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
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Fall Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>NUP.105</td>
<td>Introduction to Practical Nursing</td>
<td>9</td>
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<tr>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
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<tr>
<td>BIO.111</td>
<td>Anatomy &amp; Physiology Fundamentals **</td>
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Spring Semester

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUP.125</td>
<td>Nurse Care-Ind Health Problems</td>
<td>10</td>
</tr>
<tr>
<td>PSY.265</td>
<td>Developmental Psychology</td>
<td>3</td>
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<td>NUT.110</td>
<td>Nutrition</td>
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Second Year

Summer Session

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<th>Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>NUP.130</td>
<td>Transitional Issues</td>
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</table>

Total Program Hours: 45.5

* Prerequisite: Admission to the Practical Nursing Program. Placement on the Illinois Health Care Worker Registry as a CNA in good standing by the end of the fall semester is required.

** Notice to PN Students Who Plan to Apply for Admission to 2nd Year ADN In place of BIO.111 Anatomy & Physiology Fundamentals you may consider enrolling in BIO.211 Anatomy & Physiology 1 and BIO.212 Anatomy & Physiology 2. (BIO.211 Anatomy & Physiology 1 and BIO.212 Anatomy & Physiology 2 are required for the Associate Degree Program.)

Note: Student enrolled in the Practical Nursing Program must complete NUA.100 Basic Nursing Assistant Training, BIO.111 Anatomy & Physiology Fundamentals (or BIO.211 Anatomy & Physiology 1 and BIO.212 Anatomy & Physiology 2) and all NUP courses in sequence with a grade of “C” or better in order to register for subsequent courses and continue in the program. All co-requisite courses listed in the program curriculum must be completed with a “C” or better to graduate.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Hroziencik, Debra J
assistant professor, practical nursing

Weaver, Mischelle
Associate Dean of Nursing
Radiologic Technology
Associate in Applied Science

http://www.sandburg.edu/academics/radiologic-technology

Carl Sandburg College offers a two-year associate degree program in Radiologic Technology, beginning each year in June. This program is designed to prepare students to perform diagnostic x-ray examinations for patients in hospitals, imaging centers, physicians’ offices, and other health-related institutions.

Radiologic technologists use x-ray equipment to create images of organs, bones and blood vessels of the body. An x-ray image, or radiograph, is produced when a small amount of radiation passes through a body part and is recorded on film or stored electronically on a computer. Radiologic technologists must accurately position patients and manipulate x-ray equipment to ensure that high quality diagnostic images are produced. They are educated in anatomy, patient positioning, radiographic techniques, equipment protocols, radiation safety, radiation protection and basic patient care. Radiologic technologists work closely with physicians who then interpret the images to either confirm or rule out disease or injury.

Working Conditions
Radiologic technologists may work in a variety of health care facilities, although most are employed in hospitals or major medical centers. Technologists typically work 40-hour weeks that may include evening, weekend or “on-call” hours dependent upon their employment setting. Physical stamina is important in diagnostic imaging because technologists are on their feet for long periods of time and may be required to lift or turn disabled patients.

Employment
With the life expectancy increasing, the demands of an aging population increases the need for health care providers. Employment of radiologic technologists is expected to grow faster than the average for all occupations through 2020. Earnings vary by geographic location, employment setting, and years of experience.


Accreditation/Licensure
Carl Sandburg College is accredited through the North Central Association of Colleges and Schools – The Higher Learning Commission, 30 LaSalle Street, Suite 2400, Chicago, IL 60602-2504. Graduates are eligible to apply to take the American Registry of Radiologic Technologists examination for certification in Radiography-RT(R). This certification is nationally recognized and enables the student to pursue employment throughout the United States.

Admission to the Program: Limited
Admission is competitive. Only the most qualified applicants are admitted. Applications are accepted October 1 through February 15 for review in March. Applicants will be notified in writing within two weeks of the admission meeting of admission status. If necessary, an additional review session may be scheduled with a deadline for materials by May 30. Of the 16 seats available each year, spaces are reserved for Carl Sandburg College, Spoon River College, Black Hawk College, Southeastern Community College and Eastern Iowa Community College residents.

Admission Process
After the review of applications each student will be offered conditional admission, placed on the alternate list, or denied admission. Alternates will be offered conditional admission as positions on the conditional admission list become available. In order to be given full admission to the program the student must complete all of the necessary requirements, including the program specific paperwork as required. This paperwork will be distributed and discussed in depth at a mandatory meeting. Additional information regarding the mandatory meeting will be contained in the letter sent from the Admission Office notifying students of initial program admission status. All students, including those on alternate lists, are required to attend the mandatory meeting to pick up program specific paperwork and hear the discussions that take place. Students who do not attend a mandatory meeting will not be given this paperwork and will forfeit their position on the admission list.

Students who are conditionally admitted (including alternates) to the Radiologic Technology program must pay a $100 deposit when notified of initial program admission status to guarantee a place on the admission list. Once the student registers and pays his/her tuition, the $100 will be applied towards tuition. Students who accept their seat and drop for any reason will forfeit their money. Alternates who are not admitted will receive a refund.

Admission Requirements: (Application Deadline February 15)
1. If you have never attended Carl Sandburg College, complete a general application for admission to the College - http://recruiter.sandburg.edu
2. Meet with the counselor working with prospective Radiologic Technology students.
3. Submit official transcripts from high school and all appropriate post-secondary educational institutions.
4. Complete the following courses with grades of “C” or better:
   - Biology - BIO 205 or its equivalency
   - Math - MAT 109 or MAT 110
   - Chemistry or Physics - CHM 100 or PHY 151
   - Medical Terminology - MDT 100
5. HOBET V (HOBET V scores may be valid for only one admission cycle):
   - Reading - minimum score of 64
   - Math - minimum score of 60
   - Science - minimum score of 41
   - English - minimum score of 50
   - Total Adjusted - minimum score of 54
6. Submit documentation of an interview with a licensed radiologic technologist currently working in the field. Interview must be completed within 3 years of admission date.
7. Complete an application for the Radiologic Technology program. (Program applications are available through the counselor.)

Required by May 30
Applicants who are offered provisional admission following the March review are required to provide official college transcripts by May 30, 2014 to document successful completion of BIO 205 (or equivalent) or BIO 211 and BIO 212 (or equivalent) with grades of “C” or better. Students who fail to satisfy this requirement by May 30, 2014 will forfeit their provisional admission status.

Students interested in enrolling in this program may complete as many general education courses as they wish before going through the application process. Although it is not necessary, it is recommended to
complete as many of the general education courses prior to the start of the RDT coursework, due to the rigorous quality of the program. General education courses do not have to be taken at Carl Sandburg College, although course equivalency should be verified prior to completion of courses at other institutions.

NOTE: This program requires a criminal background check, health evaluation including proof of immunity, a 10-panel drug screen, and CPR certification prior to entering radiologic technology classes. Details for these requirements are presented at the mandatory meeting.

Notes of general interest:

"It is strongly recommended that BIO, MAT, CHM, PHY and MDT courses be completed no more than five (5) years prior to the starting date of the program.

"It is highly recommended, but not required, that students taking Anatomy and Physiology I and II (BIO 211 & 212 or equivalencies) complete both of these courses at the same institution.

Notice to Applicants of the Radiologic Technology Program:

Your personal history may affect your ability to be certified / licensed as a radiographer. In order to be eligible for A.R.R.T. certification, candidates must be of “good moral character.” The qualifications for candidate eligibility for certification are reproduced below from Section IIA of the Examinee Handbook of the American Registry of Radiologic Technologists:

“Candidates must be of good moral character. Generally, the conviction of either (1) a felony, or (2) any offense, misdemeanor or felony involving moral turpitude indicates a lack of good moral character for Registry purposes. Those who have been convicted of a crime may be eligible for registration if they have served their entire sentence, including probation and parole, and have had their civil rights restored.”

In addition, the application for licensure in the State of Illinois asks the following questions:

1. Have you ever been convicted of a felony?
2. Have you been denied or had a license/certification revoked?
3. Have you been formally notified of any complaint against you relative to the practice of radiologic technology?
4. Have you had a drug or alcohol abuse problem?
5. Do you have a mental or physical disability that, through the practice of your duties, may be dangerous to patients or the public?

A response of “yes” to any of the above may result in the delay or denial of your license.

Questions regarding eligibility for A.R.R.T. certification and/or Illinois licensure may be directed to:

The American Registry of Radiologic Technologists
1255 Northland Drive
St. Paul, MN 55120-1155
(651) 687-0048

OR

IEMA, Division of Nuclear Safety
1035 Outer Park Drive
Springfield, IL 62704

(217) 785-991 OR (217) 785-9900

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Associate in Applied Science

First Year

<table>
<thead>
<tr>
<th>Summer Session</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH.105 Introduction to Patient Care</td>
<td>1.5</td>
</tr>
<tr>
<td>RDT.100 Introduction to Radiologic Technology</td>
<td>3</td>
</tr>
<tr>
<td>RDT.101 Radiologic Technology Procedures 1</td>
<td>3</td>
</tr>
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</table>

Fall Semester

<table>
<thead>
<tr>
<th></th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>ENG.101 Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>RDT.110 Rad Tech Physics &amp; Instrumentation 1</td>
<td>3</td>
</tr>
<tr>
<td>RDT.111 Radiologic Technology Procedures 2</td>
<td>4.5</td>
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<tr>
<td>RDT.115 Radiologic Technology Practicum 1</td>
<td>3.5</td>
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Spring Semester

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>RDT.120 Rad Tech Physics and Instrumentation 2</td>
<td>3</td>
</tr>
<tr>
<td>RDT.121 Radiologic Technology Procedures 3</td>
<td>4.5</td>
</tr>
<tr>
<td>RDT.123 Principles of Radiologic Technology</td>
<td>3</td>
</tr>
<tr>
<td>RDT.125 Radiologic Technology Practicum 2</td>
<td>3.5</td>
</tr>
<tr>
<td>SOC.203 Introduction to Diversity</td>
<td>3</td>
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Second Year

<table>
<thead>
<tr>
<th></th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>RDT.201 Radiologic Technology Procedures 4</td>
<td>2.5</td>
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<tr>
<td>RDT.205 Radiologic Technology Practicum 3</td>
<td>4</td>
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Fall Semester

<table>
<thead>
<tr>
<th></th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>RDT.211 Advanced Radiologic Technology Procedure</td>
<td>3</td>
</tr>
<tr>
<td>RDT.212 Radiologic Technology Image Critique</td>
<td>3</td>
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<tr>
<td>RDT.215 Radiologic Technology Practicum 4</td>
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<td>PHL.103 Biomedical Ethics</td>
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Spring Semester

<table>
<thead>
<tr>
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<th>Semester Hours</th>
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<tbody>
<tr>
<td>RDT.220 Radiologic Technology Capstone</td>
<td>3</td>
</tr>
<tr>
<td>RDT.222 Radiation Biology</td>
<td>2</td>
</tr>
<tr>
<td>RDT.225 Radiologic Technology Practicum 5</td>
<td>5</td>
</tr>
<tr>
<td>SPE.110 or SPE.120 Interpersonal Communication</td>
<td>3</td>
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</tbody>
</table>

Total Program Hours: 72.0

NOTE: Students enrolled in the Radiologic Technology program must complete all RDT and BIO courses with a grade of “C” or better in order to register for subsequent courses. In order to graduate, each student must complete all required courses with a grade of “C” or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Whipple, Jackie D
assistant professor, radiologic technology
Personal and Home Care Aide

Certificate

The program is designed to prepare individuals to be personal and home care aides providing care for the elderly, convalescents or persons with disabilities at the patient’s home. The student will learn to provide basic medical checks such as pulse, blood pressure, and temperature; bathing, dressing and grooming of the patient; light housekeeping, and preparing meals as well as provide companionship and support.

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For more program information contact the Welcome Center welcomecenter@sandburg.edu 309.345.3500

Personal and Home Care Aide

First Year

<table>
<thead>
<tr>
<th>Fall Semester</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALH.110 Introduction to Pharmacology</td>
<td>3</td>
</tr>
<tr>
<td>BIO.111 or Anatomy &amp; Physiology Fundamentals</td>
<td>4</td>
</tr>
<tr>
<td>BIO.205</td>
<td></td>
</tr>
<tr>
<td>MDT.100 Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>NUA.100 Basic Nursing Assistant Training</td>
<td>7.5</td>
</tr>
<tr>
<td>Total Program Hours:</td>
<td>16.5</td>
</tr>
</tbody>
</table>

Note: Students enrolled in the Personal and Home Care Aide program must complete ALH, MDT and NUA courses in the program with a grade of C or better. In order to graduate, students must complete all ALH, MDT, and NUA courses with a grade of C or better.

Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.
Rail/Off Highway Motive Power Electrical Technician

Associate in Applied Science and Certificate

This program provides generalized knowledge of electrical technology for locomotives and off-highway motive powered technologies. Through demonstrations and applications of standard industry techniques and processes that are included/embedded in the program curriculum students will be able to assess, troubleshoot, fix and maintain the electrical components in these technologies. Content includes operation and analysis of industrial electronic circuits and devices as well as principles of automatic process control, measurement, programmable controller and distributed control.

Graduates will assemble and install electrical circuitry, perform troubleshooting to locate electrical problems in a variety of electrical instruments, control systems and equipment, plan preventive maintenance and repairs on electrical systems. Develop work plans and design standard operating procedures. Monitor breakdowns in electrical components using testing devices and equipment. Design wiring structures as per the electrical system or instrument need. Maintain and document records of electrical needs and study blueprints of electrical designs while solving electrical issues.

Employment
The current employment projections from the Bureau of Labor Statistics (BLS) and the Illinois Department of Employment Security (IDES) show the following for the district, rail transportation workers (53-4000) IDES reports a 6.45% increase and for rail transportation workers, all other (53-4099), IDES reports a 16.67% increases by the year 2018. For Electrical/Electronic Equipment Mechanics/Installers (49-2000) the IDES indicates a .74% growth by 2018 in the district and 3.84% growth in Illinois by 2020. However, Helpers for Electricians (47-3013) shows better growth at 11.11% in the district by 2018 and 6.68% in Illinois by 2020.

Admission to the Program: Open

First-Time Enrollees
1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomcenter@sandburg.edu (admissions@sandburg.edu) 309.345.3500

Certificate

First Year
Fall Semester
ELT.100 Electrical Fundamentals 3
MAT.101 Technical Mathematics 1 3

Spring Semester
ELT.104 Industrial Electrical Control 3
ELT.121 Rail/Off Hiway Motive Power Electrical 4
ENG.101 or RDG.120 Freshman Composition 1 3
MAT.102 Technical Mathematics 2 3

Second Year
Fall Semester
BOC.107 Tech Skills for Business Environment 3
ELT.119 Industrial Electronic Control 3
ELT.120 Electrical/Electronics Troubleshooting 3
SOC.101 or Introduction to Sociology 3
PSY.101 3
RRT.101 History of Railroading 3
SPE.110 or Interpersonal Communication 3
SPE.120 3

Spring Semester
CIS.112 Computer Software Applications 3
ELT.209 AC/DC Drives and Servos 3
ELT.212 Industrial Electricity 3
ELT.213 Process Control & Instrumentation 3
PHY.110 Applied Physics 3

Total Program Hours: 65.0

Students enrolled in the Rail Off/Highway Motive Power Electrical Technician program must complete all ELT courses with a grade of C or better in order to register for subsequent courses and continue in the program. In order to graduate, each student must complete ELT, MTL and WEL courses with a grade of C or better.
MFG.125 Industrial Blueprints 3

Total Program Hours: 32.0

Note: Students enrolled in the Rail Off/Highway Motive Power Electrical Technician program must complete all ELT courses with a grade of C or better in order to register for subsequent courses and continue in the program. In order to graduate, each student must complete ELT, MTL and WEL courses with a grade of C or better.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements section in this catalog.)
Small Business Management

Certificate

The Small Business Management certificate is designed for students wishing to start their own business in an entrepreneurial environment or for students who are interested in managing a small business in a variety of business sectors, including wholesale, manufacturing, health care, food service, and governmental agencies. This certificate will provide students with an introduction to business organization and operations. It will also provide students with the knowledge and insight necessary to develop strong management skills, which are often necessary for advancement to supervisory positions in a small business. Students pursuing this certificate are permitted six semester hours of directed electives. This level of flexibility will allow students to select courses specific to their individual strengths, interests, and goals.

Admission to the Program: Open

First-Time Enrollees

1. Complete an application for admission and, if desired, apply for financial aid.
2. Send an official high school transcript or GED score report to the Admissions and Records Office.
3. Complete the placement exam, COMPASS.
4. Meet with an advisor/counselor to select classes and complete the registration process.

For Additional Program Information Contact the Welcome Center welcomecenter@sandburg.edu
309.345.3500

Certificate

First Year

<table>
<thead>
<tr>
<th>Semester Session</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Session</td>
<td>BOC.100</td>
<td>Business Mathematics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ACC.101</td>
<td>Principles of Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Fall Semester</td>
<td>BLA.202</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS.100</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CIS.112</td>
<td>Computer Software Applications *</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOC.110</td>
<td>Small Business Principles</td>
<td>3</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>ACC.102</td>
<td>Principles of Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ACC.203</td>
<td>Accounting Software</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOC.120</td>
<td>Customer Service</td>
<td>2</td>
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<tr>
<td></td>
<td>BUS.201</td>
<td>Management Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS.291</td>
<td>Professional Internship 1</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS.292</td>
<td>Professional Internship 2</td>
<td>3</td>
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<tr>
<td></td>
<td>BUS.101</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BUS.102</td>
<td>Sales Fundamentals</td>
<td>3</td>
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<td>BUS.200</td>
<td>Advertising Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BOC.107</td>
<td>Tech Skills for Business Environment</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENG.120</td>
<td>Report Writing</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>OMS.200</td>
<td>Human Resources Management</td>
<td>3</td>
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Directed Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS.291</td>
<td>Professional Internship 1</td>
<td>3</td>
</tr>
<tr>
<td>BUS.292</td>
<td>Professional Internship 2</td>
<td>3</td>
</tr>
<tr>
<td>BUS.101</td>
<td>Marketing Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.102</td>
<td>Sales Fundamentals</td>
<td>3</td>
</tr>
<tr>
<td>BUS.200</td>
<td>Advertising Fundamentals</td>
<td>3</td>
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<tr>
<td>BOC.107</td>
<td>Tech Skills for Business Environment</td>
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<td>ENG.120</td>
<td>Report Writing</td>
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</tr>
<tr>
<td>OMS.200</td>
<td>Human Resources Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Students are strongly encouraged to meet with the Dean of Social/Business Sciences prior to enrolling in a directed elective course.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)

Johnson, Jill L
assistant professor, psychology
associate dean of social & business sciences

Williams, Keith W
instructor, economics/business administration
coordinator, business programs

* Students who do not satisfy the course prerequisites for CIS.112 Computer Software Applications will be required to enroll in preparatory coursework.
Surgical Technology
Associate in Applied Science
...offered by Illinois Central College

Program Information
The surgical technologist, working closely with surgeons and registered nurses, functions as a member of the surgical team. Courses include the study of basic patient care practices, sterile technique, surgical anatomy, surgical procedures, working as a team, communication skills, ethical/legal aspects of safe patient care, and surgical supplies and instruments. Today's surgical technologist also must know how to assemble and troubleshoot high tech equipment and instrumentation.

Students receive clinical experience in all the surgical specialties at area hospitals. Graduates are eligible to apply to take the national certification examination to become a Certified Surgical Technologist (CST).

Admission to the Program: Selective
Admission criteria has been established by Illinois Central College. Students can complete their general education courses at Carl Sandburg College. Professional courses are offered at ICC in Peoria. Five positions in this program are reserved for Carl Sandburg College students.

For Additional Program Information Contact
ICC Health Careers & Public Services Dept., William Hammer, 309.999.4633 or bhammer@icc.edu

Associate in Applied Science

Required General Education Courses at Sandburg

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BIO.211</td>
<td>Anatomy &amp; Physiology 1</td>
<td>4</td>
</tr>
<tr>
<td>BIO.212</td>
<td>Anatomy &amp; Physiology 2</td>
<td>4</td>
</tr>
<tr>
<td>BIO.200</td>
<td>General Microbiology</td>
<td>4</td>
</tr>
<tr>
<td>ENG.101</td>
<td>Freshman Composition 1</td>
<td>3</td>
</tr>
<tr>
<td>MDT.100</td>
<td>Medical Terminology</td>
<td>2</td>
</tr>
<tr>
<td>PSY.101</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>SOC.101</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>SPE.120</td>
<td>Introduction to Public Speaking</td>
<td>3</td>
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<tr>
<td>Humanities Elective (as approved by ICC)</td>
<td>3</td>
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Total Semester Hours: 29

Required Program Courses at ICC

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<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Fall Semester</td>
<td>SURTK 120</td>
<td>Introduction to Surgical Technology</td>
<td>4</td>
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<tr>
<td></td>
<td>HLTH 110</td>
<td>Fundamentals of Sterile Processing</td>
<td>2</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>SURTK 130</td>
<td>Pharmacology for the Surgical Technologist</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>HEOCC 114</td>
<td>Introduction to Interdisciplinary Health Care</td>
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<tr>
<td></td>
<td>SURTK 121</td>
<td>Fundamentals of Surgical Technology</td>
<td>7</td>
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<tr>
<td>Summer Session</td>
<td>SURTK 122</td>
<td>Fundamentals of Surgical Technology II</td>
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Second Year

<table>
<thead>
<tr>
<th>Semester</th>
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<th>Course Title</th>
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<tr>
<td>Fall Semester</td>
<td>SURTK 210</td>
<td>Surgical Technology III</td>
<td>8</td>
</tr>
<tr>
<td>Spring Semester</td>
<td>SURTK 211</td>
<td>Advanced Fundamentals of Surgical Technology</td>
<td>7</td>
</tr>
</tbody>
</table>

Total Program Hours: 36.0

Total Program Requirement: 65

NOTE: Students enrolled in the Surgical Technology program must complete all BIO and SURTK courses with a grade of "C" or better in order to remain in and graduate from the program.

- Students must meet prerequisites for BIO.200 General Microbiology, BIO.211 Anatomy & Physiology 1, & BIO.212 Anatomy & Physiology 2.

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
Welding

Associate in Applied Science

www.sandburg.edu/academics/welding

The Welding program is designed to provide the graduate with skills needed to enter employment in local industry as an entry-level welding supervisor for construction firms, agricultural enterprises, and heavy machine fabrication. This certificate program is designed to provide students a hands-on welding certificate that emphasizes training and the mastery of welding techniques. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All the courses contain essential components required for success in industry today such as mathematics, communication, attendance, and productivity.

Industrial & Manufacturing

Area industrial leaders, Carl Sandburg College, and the Galesburg Business and Technology Center have joined forces to provide state-of-the-art industrial training. The Center for Manufacturing Excellence (CME) offers a variety of industrial training opportunities for employees of area industries, as well as for the general public. The 30,000-square-foot Center for Manufacturing Excellence facility is located on the Main Campus of Carl Sandburg College in Galesburg to house short-term and long-term industrial training programs and a manufacturing incubator. Cutting-edge technology will allow companies to meet their customers’ needs and demands.

Long-term Benefits:

- Increased labor pool to replace retiring workers
- Increased selection for new hires
- Overall increased quality of work force
- Overall increased quality of manufacturing in western Illinois
- Increased technical expertise of existing work force

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

Department of Career, Technical & Health Education
2400 Tom L. Wilson Blvd.
Galesburg, IL 61401
Phone: 309.345.3500
welcomecenter@sandburg.edu

Associate in Applied Science

First Year

Fall Semester

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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Spring Semester

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<td>WEL.120</td>
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Summer Session

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Second Year

Fall Semester

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Spring Semester

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Summer Session

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Total Program Hours: 67.5

(Students who do not expect to complete their degree within five years should refer to the Graduation Requirements (p. 22) section in this catalog.)
Johnson, Craig A
instructor, welding
Welding/ Gas Shielded Arc Certificate

This two-semester certificate is designed to provide the graduate with skills needed to enter employment in local industry with skills and knowledge that emphasizes training and the entry-level competence for MIG, TIG, or ARC welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All the courses contain essential components required for success in industry today such as mathematics, communication, attendance, and productivity.

Industrial & Manufacturing

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Long-term Benefits:

- Increased labor pool to replace retiring workers
- Increased selection for new hires
- Overall increased quality of work force
- Overall increased quality of manufacturing in western Illinois
- Increased technical expertise of existing work force

Admission to the Program: Open

First-Time Enrollees

- Complete an application for admission and, if desired, apply for financial aid.
- Send an official high school transcript or GED score report to the Admissions and Records Office.
- Complete the placement exam, COMPASS.
- Meet with an advisor/counselor to select classes and complete the registration process.

WEL.100 Welding Theory OFC & OAW 1
WEL.102 Metal Preparation 1
WEL.109 Oxyacetylene Welding 1
WEL.104 Welding Theory Basic SMAW 1
WEL.111 Arc Welding Basic 1 1
WEL.112 Arc Welding Basic 2 1
WEL.105 Welding Theory Advanced SMAW 1
WEL.114 Arc Welding Advanced 1 1
WEL.115 Arc Welding Advanced 2 1
WEL.106 Welding Theory GTAW 1
WEL.116 Gas Shielded Arc-TIG 1 1
WEL.117 Gas Shielded Arc-TIG 2 1
MAT.101 Technical Mathematics 1 3

Total Program Hours: 30.0

Spring Start

First Year

Spring Semester

WEL.100 Welding Theory OFC & OAW 1
WEL.102 Metal Preparation 1
WEL.109 Oxyacetylene Welding 1
WEL.104 Welding Theory Basic SMAW 1
WEL.111 Arc Welding Basic 1 1
WEL.112 Arc Welding Basic 2 1
WEL.105 Welding Theory Advanced SMAW 1
WEL.114 Arc Welding Advanced 1 1
WEL.115 Arc Welding Advanced 2 1
WEL.106 Welding Theory GTAW 1
WEL.116 Gas Shielded Arc-TIG 1 1
WEL.117 Gas Shielded Arc-TIG 2 1
ENG.101 or Freshman Composition 1 3
RDG.120 3
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<tr>
<td>WEL.108</td>
<td>Welding Theory GMAW &amp; FCAW</td>
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<td>WEL.120</td>
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**Total Program Hours:** 30.0

**Johnson, Craig A**

instructor, welding
Welding/ MIG Option Gas Metal Arc

Certificate

www.sandburg.edu/academics/welding

This two-semester certificate is designed to provide the graduate with skills needed to enter employment in local industry with skills and knowledge that emphasizes training and the entry-level competence for MIG welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All of the courses contain essential components required for success in the industry today such as mathematics, communication, attendance, and productivity.

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- Overall increased quality of work force
- Overall increased quality of manufacturing in western Illinois
- Increased technical expertise of existing work force

Admission to the Program: Open

First-Time Enrollees

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2400 Tom L. Wilson Blvd.
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Phone: 309.345.3500
welcomecenter@sandburg.edu

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<td>WEL.105</td>
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Spring Semester

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<td>WEL.119</td>
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<td>WEL.108</td>
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<td>MTL.103</td>
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Total Program Hours: 30.0

Johnson, Craig A
instructor, welding

First Year

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<td>WEL.104</td>
<td>Welding Theory Basic SMAW</td>
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Welding/ Shielded Metal Arc Certificate

www.sandburg.edu/academics/welding

This one-semester program is designed to provide the graduate with skills needed to enter employment in local industry as an entry-level welding supervisor for construction firms, agricultural enterprises, and heavy machine fabrication that emphasizes training in Shielded Metal ARC welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All the courses contain essential components required for success in industry today such as mathematics, communication, attendance, and productivity.

Industrial & Manufacturing

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Total Semester Hours 18

Johnson, Craig A instructor, welding
Welding/ TIG Option Gas Metal Arc

Certificate
www.sandburg.edu/academics/welding

This two-semester program is designed to provide the graduate with skills needed to enter employment in local industry as an entry-level welding supervisor for construction firms, agricultural enterprises, and heavy machine fabrication. This certificate program is designed to provide students a hands-on welding certificate that emphasizes training and the mastery of welding techniques specializing in TIG-Gas Metal Arc welding. The welding program emphasizes welding skill proficiency through lab activities and projects as learning activities. All the courses contain essential components required for success in industry today such as mathematics, communication, attendance, and productivity.

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Spring Semester

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Total Program Hours: 24.0

Johnson, Craig A
instructor, welding
ACC Accounting

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<td>ACC.202 Intermediate Accounting 2</td>
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<td>ACC.203 Accounting Software</td>
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**ACC.100 Procedural Accounting**

This is a fundamental course for the occupationally-oriented student that emphasizes how to keep records rather than how to analyze them. The course work will be devoted to developing procedures within the framework of acceptable record-keeping concepts. The student will also develop a vocabulary necessary to understand terminology in the accounting area. Any person who desires a basic understanding of bookkeeping prior to pursuing principles of accounting will find this course very helpful.

Offered: Fall or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**ACC.101 Principles of Financial Accounting**

This is the first of a two course sequence designed to prepare students for a major in accounting. This course presents the following topics: concept of double-entry accounting, completing the accounting cycle, preparing financial statements, accounting for cash and charge transactions, accruals and deferrals, depreciation of physical assets, allowing for doubtful accounts, accounting for receivables and payables, inventories, payroll accounting, systems and controls, and concepts and principles.

Offered: Fall or Spring

Prerequisites: A grade of C or better in RDG.096 or a COMPASS reading score of 83 or higher or ACT Reading score of 20; A grade of C or better in MAT.090 or a COMPASS pre-algebra score of 47 or higher (BOC.100 Placement)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ACC.102 Principles of Managerial Accounting**

This is the second of two courses in principles of accounting. During this course the basic accounting theory required for corporations, including accounting for merchandise, receivables, other assets, liabilities, and capital, will be covered. In addition, job costing, unit process costing, decision making, and statement analysis are introduced.

Offered: Fall or Spring

Prerequisites: ACC.101

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ACC.201 Intermediate Accounting 1**

This is a course in intermediate accounting for students preparing for employment upon completion of their studies at Sandburg. Students will examine the balance sheet, income statement, and statement of cash flows in detail. The conceptual framework of accounting, concepts of future and present value, cash and receivables, inventory, and the acquisition and disposition of property, plant, and equipment will be given special emphasis. Various methods of presenting financial statements for external users will be studied.

Offered: Fall

Prerequisites: ACC.102

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ACC.202 Intermediate Accounting 2**

This course is a continuation of Intermediate Accounting 1. Students will examine the balance sheet and income statement in detail with special emphasis on the liability and stockholder's equity accounts. Various methods of presenting financial statements for external users will be studied.

Offered: Spring

Prerequisites: ACC.201

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ACC.203 Accounting Software**

This course will use a commercial business accounting software package to familiarize the student with the type of accounting software he/ she could encounter in the business world. Various business types and organizations will be used to demonstrate the various aspects of the accounting cycle including accounts receivable, accounts payable, payroll, inventory, and financial statements. A manual practice set will also be used to familiarize students with subsidiary ledgers, accounts receivable/payable tasks, payroll, and the flow of information in the accounting cycle. This course is appropriate for accounting students preparing for employment upon completion of their studies at Carl Sandburg College.

Offered: Spring or as Needed

Prerequisites: CIS.112 and ACC.102 or concurrent enrollment

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable
### ACC.205 Cost Accounting

This is a one-semester course in practices and procedures of cost accounting. It presents job order, process cost and standard cost accounting principles. This course is designed for baccalaureate oriented students. It is also appropriate for persons preparing for employment without completing a bachelor’s degree.

Offered: Spring

Prerequisites: ACC.102

Course applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

### ACC.206 Federal Income Tax

This course is designed to give students a fundamental background of the individual income tax system. The course presents the following topics: the background of the federal income tax withholding system; basic individual income tax; individual income tax structure; identification of inclusions and exclusions from gross income; itemized deductions; business returns for self-employed individuals; special tax situations for individuals; and changes affecting current year's tax laws.

Offered: Spring

Course applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

### ACC.207 Payroll Accounting

This course will focus on payroll accounting and the role that the payroll accountant plays in an organization's management planning process. The need for timely and accurate payroll data will be a major focus of this course. Payroll accounting software and microcomputer spreadsheet applications will be an integral part of this course. The need for payroll and personnel records, computing and paying wages and salaries, payroll taxes, and analyzing and journalizing payroll transactions will be covered.

Offered: Spring or as Needed

Prerequisites: ACC.100 or ACC.101, BOC.100 or MAT.099, CIS.112

Course applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

### ACC.208 Spreadsheet Applications for Business

This course will focus on developing more advanced skills in microcomputer spreadsheet applications as they relate to accounting and other business applications. Basic knowledge of spreadsheets will be assumed. Topics that may be explored include working with formulas and functions, charts and graphs, working with multiple worksheets and workbooks, integration with other software applications, data tables and scenario management, and other accounting/business applications.

Offered: Fall or Spring

Prerequisites: ACC.102 or concurrent enrollment and CIS.112

Course applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable
AGR.141 Introduction to Agri Economics  
3  3

This course provides an introduction to economic principles and the application of those principles to agriculture. The role of agriculture in the United States and the world economics also is included. 
Offered: Fall and Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

AGR.151 Introductory Soil Science  
3  2  4

The principle topics considered in this course are: the basic and applied chemical, physical and biological concepts in soils; the origin, classification and distribution of soils and their relationship to people and food production; and the management and conservation of soils. The laboratory portion of this course will utilize a combination of college laboratory and field trip experiences. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

AGR.181 Introduction to Horticultural Science  
2  2  3

This course is an introduction to the principles and practices involved in the development, production, and use of horticulture crops (fruits, vegetables, greenhouse, turf, nursery, floral and landscape). The course will also show the importance of horticulture in providing food and plant ornamentation; plant structure, growth and development; and environmental and biological factors influencing plant growth.
Offered: As Needed 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

ALH.100 Exploring Health Careers  
3  3

This course is designed to introduce the student who is new to health care or exploring a health career field to basic knowledge and skills for many different health careers. This is an introductory course exploring aspects of infection control, vital signs, patient movement/transport, and patient care in different health career fields. This course is intended for any student interested in a health care field. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

ALH.105 Introduction to Patient Care  
1  1  1.5

This course is designed to introduce the student who is new to health care or exploring a health career field basic knowledge and skills of patient care for many different health careers. This is an introductory course exploring aspects of infection control, vital signs, patient movement/transport, oxygen administration, recognition of medical emergencies and assisting with drug administration. This course is intended for any student interested in a health care field.
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

ALH.110 Introduction to Pharmacology  
3  3

This course is an overview of pharmacology and its medications as it pertains to allied health professions. Topics will include principles of drug administration and basic mathematics involved in drug calculations. Throughout the course, the commonly used medications within allied health professions will be explored. This course is intended for students intending to enter an Allied Health program. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

ALH.115 Basic Health Statistics  
3  3

This course is designed to provide students an introduction to terms, definitions, formulae, and computations used in computing health care statistics. Emphasis is on inpatient health care data and statistical computations, but most applications can be transferred to the outpatient or alternative healthcare settings. Statistical skills will be acquired and developed through actual use and analysis of data. 
Offered: Fall 
Prerequisites: COMPASS pre-algebra score of 47 or MAT.090 with grade of C or better or one year of high school Algebra completed in the last three years with a minimum grade of C 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

ALH.120 Medical Law and Ethics  
3  3

Students will be introduced to legal, moral, and ethical issues that are likely to arise as they practice health information management. This course provides an overview of the laws and the ethics needed to provide competent and compassionate care to patients within legal and ethical boundaries. This course will serve as a guide to assist students in resolving legal and ethical questions encountered as a health care provider. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AGS, AAS and Certificates where applicable. 
General Education -- Not Applicable
AOP Administrative Office Professional

Courses

**AOP.100 Careers for Office Professional**

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This course is an exploration of office careers. Office professionals in areas such as: medical, legal, government, education, manufacturing, and financial services will present synopses of career opportunities. Students will be required to participate in seminars to discuss and report on the information presented. It is recommended that students take this course during the first semester of an office program.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.101 Keyboarding & Formatting 1**

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This is the first course for individuals who have had no significant prior instruction in keyboarding. Instruction emphasizes the concepts and techniques involved in mastering the computer keyboard, various letter styles, reports, and tables. Minimum five-minute timing speed on straight copy material of 30 gross words per minute (with five errors or less) is required to successfully complete the course.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.102 Keyboarding & Formatting 2**

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This is the second semester course in keyboarding. The concepts and techniques presented in AOP 101 will be strengthened with more attention on special letters, forms, tables, and reports. Speed and accuracy development will be stressed. Minimum five-minute timing speed on straight-copy material of 45 gross words per minute (with five errors or less) is required to successfully complete the course. Students also enrolled in AOP 116 are expected to maintain concurrent enrollment to ensure success in this course.

Offered: Fall or Spring or Summer

Prerequisites: AOP.101 with a minimum grade of C and AOP.116 or concurrent enrollment in AOP.116. Medical Administrative Specialist and Legal Office Assistant majors are exempt from the AOP.116 prerequisite.

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.103 Speedwriting 1**

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Speedwriting is an alphabetic system of shorthand based on the letters of the alphabet and common punctuation marks used in longhand. This course is a first course for individuals who have had no significant prior instruction in Speedwriting. It is designed for the student who wants to learn a note taking skill for professional or personal use quickly and easily. Basic theory is introduced with heavy emphasis on reading and theory. Dictation and transcription are also introduced. The minimum speed requirement for satisfactory completion of this course is 60 words per minute for two minutes or 50 words per minute for three minutes with a minimum of 95 percent accuracy. A complete brief form and abbreviation test will also be given and must be passed with 95 percent or better accuracy in order to successfully complete this course.

Offered: Spring

Prerequisites: AOP.101 or concurrent enrollment in AOP.101

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.107 Website Creation**

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This course teaches the essentials of one of the most powerful tools for building Web sites without HTML. Students will learn the principles of site design and navigational structures, and how to manipulate text, graphics, and buttons. Students will also discover how to organize their pages professionally with tables, how to choose a Web Presence Provider, how to publish their site on the Web, and how to attract visitors to their site. This course will utilize software such as Microsoft FrontPage.

Offered: Fall or as Needed

Prerequisites: CIS.112

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.116 Introduction to Microsoft Word**

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This course introduces students to creating, formatting, customizing, proofing, editing, maintaining, managing, and printing documents. Additional topics include merging documents, sorting text, selecting records, inserting elements, and creating and enhancing tables and charts.

Offered: Fall or Spring or Summer

Prerequisites: AOP.101 with a minimum grade of C

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**AOP.117 Medical Transcription 1**

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This course provides students the experience of transcribing a variety of medical documents through the use of transcription equipment and computers. Students who complete this course will strengthen their medical vocabulary, as well as their grammar, punctuation, and proofreading skills.

Offered: Fall or Spring or Summer

Prerequisites: AOP.102 or concurrent enrollment and MDT.100

Applicable toward graduation at Sandburg where program structure permits:

- Degree or Certificate: AS, AGS, and Certificates where applicable.
- General Education -- Not Applicable
**AOP.102 Legal Terminology & Concepts** 2 2

This course provides a logical frame of reference in the study of basic concepts and terminology in the legal field. In addition, this course will provide an analysis of the court system and the procedures involved in practice before the courts.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.130 Electronic Health Records** 1 2 2

This course introduces students to electronic health records used in different health care settings and will develop student skills in utilizing software to record medical records in an electronic format. Topics covered include converting paper records to electronic format, using electronic health records in a hospital and a medical office, how electronic medical health records interact with other hospital information systems, and challenges to privacy and security including HIPAA. Students will complete hands-on exercises working with electronic medical records software.

Offered: Fall
Prerequisites: AOP.101 and MDT.100
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.201 Business English** 2 2

This course provides a comprehensive coverage of effective business communications. In addition, it is designed to review grammar, punctuation, capitalization, number usage, abbreviation styles, and spelling.

Offered: Spring
Prerequisites: A score of 38 or higher on the writing section of the COMPASS exam or completion of ENG.098 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.203 Office Procedures** 3 3

This course introduces a variety of topics and practices intended to promote personal and professional development. Topics covered include professional ethics, theories of leadership, telework, and an overview of job search techniques. Communication techniques will be applied to the process of making effective presentations, providing proper customer service, and communicating effectively using telecommunications. Strong written and oral communication skills will be emphasized. Students will also gain insight into stress, anger and time-management techniques.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.205 Specialized Software Apps-Legal Office** 2 4 4

This course will introduce the fundamentals of how to use computer technology to accomplish tasks performed by legal assistants in a law office. Programs included will be word processing, spreadsheets, databases and law office-specific software such as timekeeping and billing, case management/docket control, electronic discovery, litigation support, computer assisted research and CD-Rom legal databases, the electronic courthouse/automated courtroom and presentation graphics.

Offered: Fall
Prerequisites: AOP.102 with a grade of C or better and CIS.112 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.216 Advanced Microsoft Word** 2 2 3

This course explores advanced features and builds on skills introduced in AOP 116. Topics covered include enhancing, customizing, and organizing document content. Additional advanced features covered pertain to document references, forms, outlines, macros, and document protection.

Offered: Fall or Spring or Summer
Prerequisites: AOP.116
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.217 Medical Transcription 2** 1 4 3

This course provides students the experience of transcribing a variety of medical documents through the use of transcription equipment and computers. Students who complete this course will strengthen their medical vocabulary, grammar, punctuation, and proofreading skills.

Offered: Fall or Spring or Summer
Prerequisites: AOP.117
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**AOP.220 Legal Document Processing** 1 4 3

This course explores the preparation of legal documents. Emphasis is placed on developing and understanding the different formatting styles used in the legal field. Students will also be introduced to software packages used in the preparation of legal documents. Students who complete this course will strengthen their legal vocabulary, in addition to their grammar, punctuation, and proofreading skills.

Offered: Spring
Prerequisites: AOP.116, or concurrent enrollment and AOP.120
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
### AOP.231 Advanced Electronic Health Records  
3 3

This course is an extension of Electronic Health Records, AOP.130. Further application of skills and knowledge will be implemented with the use of actual electronic health record experiences. Case studies using industry-standard software in a variety of simulated medical environments will prepare students to transform theoretical electronic health record concepts into practical usage. 

Offered: Spring 
Prerequisites: Take AOP.130 with a grade of C or better 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS and Certificates where applicable. 
General Education -- Not Applicable 

### AOP.234 Insurance & Billing in Medical Office  
2 2 3

This course introduces students to the basic information used in medical insurance and patient billing procedures. Topics covered include insurance terminology, government insurance programs, billing practices and computer software used for billing in a hospital or medical office. 

Offered: Spring 
Prerequisites: AOP.101, CIS.112 or concurrent enrollment. 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable 

### AOP.291 Professional Internship 1  
15 3

Students who are currently employed will perform a research project on a topic of interest to the student and his/her firm. The project will be supervised by the supervising instructor and a job site supervisor. 

Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS and Certificates where applicable. 
General Education -- Not Applicable 

### AOP.292 Professional Internship 2  
15 3

The objective of this course is to integrate classroom theory with business practice. All students will receive on-the-job training with selected area businesses in the public and private sectors. All internship positions will be supervised by the supervising instructor and a job site supervisor. The positions associated with this internship will be non-paying positions. The prerequisite for this course is courses applicable toward the chosen curriculum and permission of supervising instructor, program coordinator or Dean of Career Technical and Health Education programs. 

Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS and Certificates where applicable. 
General Education -- Not Applicable 

### ART.111 Art Appreciation  
3 3

This course leads students to develop knowledge for experiencing and understanding visual art as an important aspect of culture. Students will be introduced to the nature and purposes of art, principles of visual perception and design, art media and techniques, and a survey of the major art forms produced by ancient, Western and non-Western cultures. This course is intended for non-art majors, but may also be a useful introduction for anyone who has no previous experience in art. 

Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. F2 900 
General Education -- Fine Arts Human Relations 

### ART.112 Art: Prehistoric to 1400  
3 3

This course is an historical survey of world art, including the prehistoric period, ancient and non-Western civilizations, through the Middle Ages in Europe. The course focuses on the study of architecture, sculpture, painting and other appropriate artforms to lead the student to an understanding of art, processes of cultural and artistic development, and the influence of those developments on the culture in which we live. 

This is an essential foundation course for students intending to pursue a baccalaureate degree in art. It is also beneficial for students intending to pursue baccalaureate degrees in the humanities or social sciences. 

Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. F2 901 
General Education -- Fine Arts 

### ART.113 Art: 1400 to Present Day  
3 3

This course is an historical survey of the art of Western Civilization from the early Renaissance to present-day. The course focuses on the study of architecture, sculpture, painting and other appropriate art forms to lead the student to an understanding of art, processes of cultural and artistic development, and the influences of those developments on the culture in which we live. 

This is an essential foundation course for students intending to pursue a baccalaureate degree in art. It is also beneficial for students intending to pursue baccalaureate degrees in the humanities or social sciences. This course is intended as the second part of a two-part course sequence, preceded by ART 112, and students will benefit most from it if completed in that sequence. There are, however, no prerequisites for this course. 

Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. F2 902 
General Education -- Fine Arts Human Relations
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<td>ART.122</td>
<td>Three Dimensional Design</td>
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**ART.121 Two Dimensional Design**

This course is an introduction to basic visual design theory and practice. Emphasis is on the development of concepts and skills essential to visual thinking and expression through studio project assignments. There are no prerequisites, but art majors are advised to complete ART 121 and/or ART 131 before this course, in order to enhance transferability as a baccalaureate art degree requirement. Studio safety will be emphasized.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.122 Three Dimensional Design**

This course introduces principles and media appropriate to the design and production of three-dimensional artforms. Emphasis is on the development of concepts and skills essential to visual thinking and expression through studio exercises. There are no prerequisites, but art majors are advised to complete ART 121 before this course, in order to enhance transferability as a baccalaureate art degree requirement. Studio safety will be emphasized.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.131 Drawing 1**

This course is an introduction to basic drawing media, techniques and purposes. Emphasis is on the development of concepts and skills essential to visual thinking and expression, through studio exercises. This is an essential foundation course for students intending to pursue further studies in art, but it is open to all students who have an interest in developing drawing skills regardless of prior experience. Studio safety will be emphasized.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.132 Drawing 2**

This course is intended to be an extension of ART 131, and emphasizes the development of advanced drawing techniques, pictorial composition, and personal expressiveness. It is recommended as part of a two-course foundation in drawing for students intending to transfer to senior institution in art. Studio safety will be emphasized.

Offered: Fall or Spring or Summer

Prerequisites: ART.131 or equivalent

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.133 Life Drawing**

This course is an introduction to drawing the human figure using a variety of media. Drawings will be derived from direct observation and instruction will emphasize descriptive drawing techniques of the human figure. Drawing activities will emphasize full figure, features, and anatomical differentiation encompassing individual physique. Studio safety will be emphasized.

Offered: Spring

Prerequisites: ART.131

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.141 Advanced Painting**

Initially, this course focuses upon the basic principles of art as expressed through painting. Subsequently, the student selects subjects for further development of his/her competence in the implementation of those principles. There are no prerequisites, but art majors are advised to complete ART 131 before this course in order to enhance transferability as a baccalaureate art degree requirement. Studio safety will be emphasized.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.151 Printmaking**

Printmaking techniques such as relief and silkscreen are studied and practiced in this course to give the student an understanding of the processes of making multiple originals. Attention is given to the principles of design and the use of printing media to express visual ideas. There are no prerequisites, but art majors are advised to complete ART 131 before this course in order to enhance transferability as a baccalaureate art degree requirement. Studio safety will be emphasized.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
**ART.161 Intro to Photography** 1.5 3 3

This course will introduce the student to the concepts and skills of basic black-and-white photography and the elements of pictorial form, and will promote use of the medium as a vehicle for creative expression. Emphasis will be placed on the mastery of basic techniques through camera and darkroom projects, and photographic vision through the analysis of exemplary works.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits: Degree of Certificate: AA, AS, AFA, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.162 Digital Photography** 1.5 3 3

This course will introduce the student to the skills and concepts of basic digital photography and promote the development of an understanding of the application of the elements and principles of design to the imaging process. It will also promote exploration of the medium for creative expression. Emphasis will be placed on the mastery of basic techniques through camera and computer projects and on photographic vision through the analysis of exemplary works.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.163 Digital Photography II** 1.5 3 3

This course continues building aesthetic and technical skills begun in Digital Photography (ART 162). This course will introduce the student to advanced skills and concepts of digital photography and image editing, continue the development of understanding in the application of the elements and principles of design to the imaging process, and promote exploration of the medium for creative expression. Emphasis will be placed on the mastery of basic tools and techniques of image editing and enhancement through the use of Adobe Photoshop. Camera and image editing projects will provide students with opportunities for creative and technical growth.

Offered: As Needed
Prerequisites: ART.162
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.171 Ceramics 1** 1.5 3 3

This course is an introduction to the medium of clay, from construction through the completion of finished pieces, including handbuilding techniques, glazing and firing. Studio safety will be emphasized. There are no prerequisites, but art majors are advised that some senior institutions may not accept this course as an art degree requirement unless it was preceded by specific art prerequisites.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.172 Ceramics 2** 1.5 3 3

This course is intended as an extension of ART 171, emphasizing the further development of knowledge and skills regarding form, decorative and conceptual approaches, glaze formulation, and firing technology. The course emphasizes individual instruction, permitting students to focus on handbuilding or potter's wheel techniques. Studio safety will be emphasized.

Offered: Fall or Spring or Summer
Prerequisites: ART.171
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**ART.191 Creativity of Graphic Design** 1.5 3 3

This course introduces the basic principles and elements of graphic design, the history of graphic design, form/symbol development, typography, and color theory. Students will learn through practical experience in essential studio processes and procedures, critiques, and group discussions how to visually solve graphic design problems. Using industry-standard software, students develop the ability and confidence to determine appropriate and successful designs. The course will focus on fundamental concepts and visual communication skills necessary for graphic design. The creation of multiple-page documents will be required, in both black and white and color, covering document construction, integration of word processing programs, working with images and typography, custom colors and standard output. The course will provide an introduction to the production of printed materials using illustrations and image manipulation software via computer.

Offered: Fall or Spring
Prerequisites: ART.121 or ART.122 or ART.131
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only Non Course

**ART.192 Conceptual Skill-Graphic Designers** 1.5 3 3

This course is a continuation of skills and creativity introduced in Graphic Design 191. Conceptual skills in visual language are used in the creation and communication of design systems. Students will create integrated media across a spectrum of applications, generate design criteria research, analysis, and design implications, and refine development for collateral items through web and motion graphics. This course will emphasize the development of graphic abstraction into both black and white and color translations, as well as the use of digital and/or traditional photography. There will be further emphasis on three- and four-dimensional computer modeling. Students will be introduced to the concepts of kinetic imagery and motion graphics. This course is an introduction to multimedia graphic design.

Offered: Fall and Spring
Prerequisites: ART.191
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only Non Course
**ART.193 Computer Art**  
1.5  3  3

This course is intended as an introduction to computer applications in the visual arts. Students take a computer software-based approach to image manipulation and generation, including the integration of computer hardware, software, and peripheral devices as tools to create and combine traditional and contemporary visual ideas as applied to art and design. This is not a graphic design computer course. This studio-based course includes appropriate instruction in the health and safety issues relative to the methods of the course and the materials being used.

Offered: Fall  
Prerequisites: ART.121 or ART.131  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**AUT Automotive Technology**

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<tr>
<th>Courses</th>
<th>Hr/Wk</th>
<th>Hr/Wk</th>
<th>Sem</th>
<th>Lect/</th>
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<th>Cr</th>
<th>Disc</th>
<th>Lab</th>
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**AUT.101 Spark Ignition Engines 1**  
1  4  3

This course is designed to introduce the student to the spark ignition engine. Emphasis will be placed on engine nomenclature, operation, rebuild procedure, and precision measuring instruments relative to the course. The student will perform a complete rebuild on a furnished engine with evaluation of the work performed on an engine dynamometer.

Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

**AUT.107 Shop Practices 1**  
2.5  4.5  4

This course is designed to enhance student skills by repairing automobiles in a simulated dealership setting. Emphasis will be placed on student following repair practices utilized in local dealerships. Customer automobiles will be used in this course.

Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

**AUT.124 Engine Performance Design**  
.5  1  1

This course pertains to designing an engine to meet performance objectives. Analytical methods of design will be applied before parts are selected. Performance software will be utilized for design analysis.

Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**AUT.201 Ignition Systems**  
2  2  3

This course is designed to include all aspects of ignition systems with emphasis on operation, repair and diagnosis. The student will utilize electronic ignition test equipment and computer scanners to diagnose and monitor late model computer controlled engines.

Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

**AUT.202 Steering Suspension & Front Wheel Dr**  
1.5  3  3

This course is designed to expose student to an in-depth use of a four wheel computer controlled alignment machine. Student will inspect/repair front end components of vehicles prior to performing alignment. Shock and strut replacement will be covered along with tire repair and balancing.

Offered: Spring  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

**AUT.203 Manual Transmission & Dr Trains**  
1  3  2

This course is designed to include all aspects of manual transmissions and drive trains with emphasis on repair and diagnosis. The student will be exposed to an in-depth study of gear ratios and their effects on torque and speed. Differential and transaxles will also be covered in this course.

Offered: Spring  
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable
**AUT.204 Automatic Transmissions**  
1.5 3 3

This course is designed to include repair procedures and diagnosis of automatic transmissions and transaxes. The student will be responsible for rebuilding and testing two transmissions/transaxes. Maintenance procedures will also be covered in this course.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

**AUT.206 Heating and Air Conditioning**  
1 3 2

This course is designed to include all aspects of heating and air conditioning with emphasis on repair, diagnosis and system charging utilizing all safety precautions. The student will operate an AC reclaiming system for removing and charging the AC system.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AGS and Automotive Technology Certificate.

General Education -- Not Applicable

BFM Biofuels Manufacturing Technology

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<thead>
<tr>
<th>Courses</th>
<th>Hr/Wk</th>
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<tr>
<td>Lect/</td>
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<td>Lab</td>
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**BFM.101 Biofuels Fundamentals**  
2 2

This course is an overview of the biofuels industry. It introduces biodiesel and ethanol in relation to traditional transportation fuels, markets, and regulatory constraints. This course also includes discussion of careers in the biofuels industry, and is the first in a series of classes in the AAS Degree in Biofuels Manufacturing Technology.

Offered: Fall

Prerequisites: COMPASS Reading score or 83 or above or RDG.096 with a grade of C or better. MAT.101 with grades of C or better.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**BFM.201 Ethanol Production**  
3 2 4

This course will cover the history, rationale, and overall fundamental process and quality control of ethanol production. The course is designed to study the relationships of science, technology and management areas in ethanol processing operations. A Process Flow Demonstrator of a typical dry mill ethanol plant will be used to examine the sequence of operations seen in various stages of production. This course will explain the rationale for feedstocks used in ethanol processing as well as product and co-product production and use. Labs will provide hands-on training of ethanol production with the Ethanol Trainer equipment.

Offered: Spring

Prerequisites: COMPASS Algebra score of 46 or above or previous experience with elementary algebra. MAT.101 with a grade of C or better of a background in geometry. CHM.100 BIO.101 and BFM.101 with grades of C or better.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**BFM.202 Biodiesel Production**  
3 2 4

This course will cover the history, rationale, and overall fundamental process and quality control of Biodiesel production. The course is designed to study the relationships of science, chemistry, technology, fuel standards, and management areas in Biodiesel processing operations. A Process Flow Demonstrator of a typical biodiesel plant will be used to examine the sequence of operations seen in various stages of production. This course will explain the rationale for feedstocks used in biodiesel processing. Labs will provide hands-on training of biodiesel production with the Biodiesel Trainer equipment.

Offered: Fall

Prerequisites: COMPASS Algebra score of 46 or better or MAT.101 with a grade of C or better. CHM.100 BIO.101 BFM.101 with grades of C or better.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**BFM.203 Water Treatment & Control**  
3 3

The course covers the basic understanding of primary water treatment systems and chlorination. Students will be able to describe problems that can be caused by impurities in the water and explain how they can be removed physically and chemically. This course will also familiarize students with the basic concepts of treating industrial water during biofuels manufacturing so it can be reused or discharged into the environment.

Offered: Fall

Prerequisites: COMPASS Algebra score of 46 or previous experience with elementary algebra or MAT.101 with a grade of C or better. CHM.100 BIO.101 BFM.101 with grades of C or better.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable
**BFM.291 Professional Internship 1**  
15 3  
Students who are currently employed in the biofuels industry will perform a related research project on a topic of interest, outside the scope of normal job duties, to the student and his/her firm. The project will be supervised by the supervising instructor and a job site supervisor. Consent of Instructor, Program Coordinator or Dean of Career Technical and Health Education is required to enroll in this course.  
Offered: Spring or Summer  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS and Certificates where applicable.  
General Education -- Not Applicable

**BFM.292 Professional Internship 2**  
15 3  
The objective of this course is to integrate classroom theory with business practice. Students will receive on-the-job training with select industry partners. All internship positions will be supervised by the supervising instructor and a job site supervisor. The positions associated with this internship will be non-paying positions. Consent of Instructor, Program Coordinator or Dean of Career Technical and Health Education is required to enroll in this course.  
Offered: Spring or Summer  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**BIO Biology**

**BIO.090 Foundation for Biology**  
2 2  
Understanding science requires the ability to speak the language, skill in the scientific measuring systems as well as knowledge of the scientific method. Foundation for Biology prepares the student for college level science courses. This class teaches the essential knowledge of scientific terminology, metric system, scientific method and basic chemistry.  
Offered: Fall or Spring  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: Not Applicable.  
General Education -- Not Applicable

**BIO.095 Foundation for Anatomy & Physiology**  
2 2  
Understanding of anatomy and physiology begins with a firm grasp of cell structure and function. Foundation for Anatomy and Physiology prepares the student for college level anatomy and physiology courses by explaining the functions of cells. This class teaches the essential knowledge of cell morphology, cell physiology, membrane transport, cell division as well as basics of tissues, organ systems and anatomical regions.  
Offered: Fall or Spring or Summer  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: Not Applicable.  
General Education -- Not Applicable

**BIO.101 General Biology**  
3 2 4  
This course introduces the student to the chemical and physical principles of life especially as they relate to humans. The major topics covered include cell structure/function, the energy flow, organismic biology, evolution, genetics, and ecology. General Biology is designed to meet the laboratory science requirement of the non-major as well as providing an appropriate background for science majors.  
Offered: Fall or Spring or Summer  
Prerequisites: A COMPASS Reading score of 83 or above is required to enroll in this course or RDG.096 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. L1 900L  
General Education -- Science Lab Science

**BIO.102 General Zoology**  
3 2 4  
This course provides an introduction to the animal kingdom with topics covering embryonic development, morphology and physiology, behavior, ecology, and evolution. Included are surveys of the protozoans and the animal kingdom.  
Offered: Spring  
Prerequisites: BIO.101 or equivalent  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. L1 902L  
General Education -- Science Lab Science

**BIO.103 General Botany**  
3 2 4  
This course provides an introduction to the plant kingdom with an emphasis on structure, basic principles of growth and development, reproductive biology, and ecology. Included will be surveys of bacteria, algae, fungi, and the plant kingdom.  
Offered: Spring  
Prerequisites: BIO.101 or equivalent  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. L1 901L  
General Education -- Science Lab Science
**BIO.108 Ecological Principles**  3  2  4

This course introduces the student to the basic concepts of ecology and the interrelationships between organisms and their environment. The major topics covered will include natural cycles, energy flow, population ecology, communities and ecosystems, and biotic interactions. Ecological Principles is designed to provide an appropriate background for science majors but will also meet the laboratory science requirement of the non-major with an interest in science. It is also recommended to take BIO 102, BIO 103, and CHM 100.

Offered: Fall

Prerequisites: BIO.101 and MAT.109 with a grade of C or better. It is recommended to also take BIO.102, BIO.103 and CHM.100.

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

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**BIO.200 General Microbiology**  3  2  4

The purpose of this course is to provide a brief study of the morphology, physiology, cultural characteristics, isolation methods, classification methods and distribution of microbes as related to public health, agriculture, medicine and industry. In addition, recent advances in recombinant DNA research will be discussed. This course is appropriate for students planning to pursue a baccalaureate degree. Also, BIO 200 is a requirement for students enrolled either in the Associate Degree Nursing program or in the Dental Hygiene program.

Offered: Spring or Summer

Prerequisites: BIO.101 and CHM.100 or equivalent as evaluated by Biology faculty

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

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**BIO.111 Anatomy & Physiology Fundamentals**  4  4

This is a one-semester, general survey course intended primarily for LPN and mortuary science students. The course includes a systems approach to anatomy and physiology and many additional topics such as nutrition, metabolism, and fluid-electrolyte and acid-base balance.

Offered: Fall or Spring or Summer

Prerequisites: A COMPASS Reading score of 83 or above, or RDG.096 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS,AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

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**BIO.120 Environmental Science**  3  3

This course is intended to provide an introduction to the study of food production, human cultures, energy and mineral use, economics, politics, and land usage from an environmental viewpoint. Studied are the major ecosystems on Earth (deserts, forests, etc.) and their individual characteristics. Also included will be current major problems such as global warming and ozone loss and the effects of all environmental problems on plant and animal species. Emphasis will be on actions that individuals and groups can do to reduce environmental degradation. The course is designed for non-majors.

Offered: Fall or Spring or Summer

Prerequisites: BIO.101 and/or CHM.100 recommended but not required

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. L1 905

General Education -- Science

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**BIO.205 Human Biology**  3  2  4

This is a one-semester course in anatomy and physiology designed to meet the needs of students who need a laboratory science course for associate degree or baccalaureate programs. The course will be an integrated systems approach emphasizing principles of homeostasis. Laboratory work will include fetal pig dissection, as well as other appropriate activities. Successful completion of one year of high school Biology and one year of high school Chemistry no longer than five years prior to enrollment is strongly recommended.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. L1 904L

General Education -- Science Lab Science

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**BIO.211 Anatomy & Physiology 1**  3  2  4

This is the first of a two-course sequence in anatomy and physiology for students who are intending to pursue a baccalaureate degree. Also, Anatomy 1 & 2 are required in the Associate Degree in Nursing Program. This course will be presented as an integrated systems approach emphasizing principles of homeostasis. There will be discussion of pathophysiological and anatomical changes that occur as a result of disease.

Offered: Fall

Prerequisites: BIO.101 and CHM.100 with a grade of C or better or the equivalent as evaluated by Biology faculty

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
BIO.212 Anatomy & Physiology 2  

This course is a continuation of BIO 211. There will be special emphasis on the cardiovascular system; fluid, electrolyte, and acid base balance; and exercise physiology. Laboratory work will include dissection of a fetal pig. 
Offered: Spring 
Prerequisites: BIO.211 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

BLA Business Law

Courses

BLA.201 Legal Environment of Business  

This course is the study of the economic, business, political, and social values or forces which cause law related to business activities to come into existence and change. Topics include legal history, philosophy, and judicial processes related to contracts, agencies, sales, and secured transactions. 
Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

BLA.202 Business Law  

This course is a basic explanation of the legal rights and responsibilities of businesses in both the public and private sectors. It is relevant to future managers and integrates ethics and social responsibility, international and contemporary business issues, and e-commerce in organizations. Current legal cases and ethical dilemmas are used to illustrate and reinforce legal regulations. 
Offered: Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

BOC Business Occupations

Courses

BOC.100 Business Mathematics  

This course introduces students to basic mathematical functions as applied to the business world and to banking services. In addition, the process of calculating sales discounts and markup, interest, employee compensation, and sales discounts will be covered. 
Offered: Fall 
Prerequisites: A COMPASS test score of 47-99 for Pre-Algebra, or 45 for Algebra or completion of MAT.090 with a grade of C or better 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

BOC.101 Business Records Management  

This course focuses on the development, management, and maintenance of a record management system. Basic storage and retrieval methods will be discussed and applied. Records retention, transfer, and disposition, according to records retention schedules, will also be presented. In addition, records and information management technology will be discussed. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

BOC.102 Business Communications  

This course covers the fundamental principles and modes of business communications. Students will be introduced to a variety of professional letters, the appropriate use of electronic mail, and the principles of oral communication. In addition, professional development topics such as resume writing and interviewing techniques will be explored. 
Offered: Fall 
Prerequisites: COMPASS Writing score of 70 or ENG.098 with a grade of C or better, or AOP.201 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

BOC.103 Office Technology  

This course introduces students to a personal information management program, the electronic search and retrieval of information, basic office machines, and voice recognition software. In addition, an in-depth study of a personal information management system; voice recognition software; navigating, searching, and downloading files on the Internet; and using basic office machines will be included. 
Offered: Spring 
Prerequisites: AOP.101 with a grade of C or better 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable
BOC.104 Mathematics of Finance  
This course is a continuation of BOC 100. Students will learn how to apply basic mathematical functions to more advanced business activities. Students will utilize basic concepts of accounting for analyzing business situations. In addition, students will analyze financial statements, interest earnings, discounts, annuities, insurance and the distribution of working capital. Introductory statistical methods will also be covered.
Offered: Spring
Prerequisites: BOC.100
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

BOC.107 Tech Skills for Business Environment  
This course provides students with instruction in basic computer skills including keyboarding, 10-key, file management, data storage and retrieval, collaborative technology, and computer hardware and software. Basic formatting rules for letters, memos, reports and tables will be covered as well as basic word processing concepts and proofreading skills. Spreadsheet and database basic terminology and usage will also be introduced. This course is designed for students who are not majoring in an office occupations program.
Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

BOC.109 Voice Recognition I  
This course will be a basic introduction to voice recognition software. Topics to be covered will include adjusting and tuning the microphone, training voice recognition software to recognize the user's voice, correcting speech errors in the voice recognition software, dictating and manipulating text using basic commands and formatting basic documents. Voice recognition software uses and possibilities will be explored as they relate to business, educational, and personal environments.
Offered: As Needed
Prerequisites: CIS.105
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

BOC.110 Small Business Principles  
This course provides an overview for students interested in creating and operating a small business. Basic accounting principles, organizational business structures, operational and supervisory skills, and oral and written communications will be covered in this course.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

BOC.120 Customer Service  
This course introduces students to the concepts and skills needed for success in retail and business careers. Topics include listening techniques, verbal and non-verbal communication skills, and the effective use of technology. The ability to effectively interact with customers, to handle customer service issues, and to establish customer relationships and loyalty will be emphasized. Students will also be introduced to methods for effectively managing stress and conflict.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

BUS Business Administration
Courses

**BUS.100 Introduction to Business** 3 3

This course is a comprehensive overview of business principles, practices, and trends that are influencing today's business and affecting tomorrow's competitive environment. The impact of globalization, technology, ethics, diversity, and culture, in addition to various emerging issues, is studied in application or relation to all business disciplines. This course provides a general orientation to business organizations for students who plan to pursue a bachelor's degree. Also, it is useful to individuals who desire a basic understanding of the business community for occupational or personal reasons.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**BUS.101 Marketing Fundamentals** 3 3

This course introduces the business activities involved in planning, pricing, promoting, and distributing want-satisfying goods and services to present and potential customers.

Offered: Spring
Prerequisites: BUS.100
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**BUS.102 Sales Fundamentals** 3 3

This course presents the basic principles underlying the sales process. The basic philosophy is to promote an understanding of the salespersons' obligation to themselves, the company, the customer, and society.

Offered: Fall
Prerequisites: BUS.100
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**BUS.110 Introduction to E-Business** 3 3

This course is designed for students with an interest in business who want to integrate business capabilities with available Internet technology. Students will learn performance, management and support functions of a business as related to the use of the Internet. Students who take this course may be working for a business looking to establish an online presence, an online business, or looking to create their own online business.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**BUS.120 Innovative Business Technology** 3 3

This course provides a background for students who look to use technology to the fullest in their business careers. This introduction to technological mediums will allow the student to not only understand the function of each medium, but feel well versed in each to communicate needs to those specializing in each medium. The course will include topics such as data knowledge and management, information security, social networks and computing at the enterprise level.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**BUS.200 Advertising Fundamentals** 3 3

This course presents a general survey of the field of advertising and is designed for students seeking initial or improved employment opportunities. Concepts included are those which relate to three basic questions: 1) What is advertising? 2) Why is advertising used? and 3) How can advertising be used effectively?

Offered: Spring
Prerequisites: BUS.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**BUS.201 Management Fundamentals** 3 3

This course provides a basic study of the field of management for individuals preparing for initial or improved employment. Several streams of management theory are reviewed. The basic functions of the business manager (planning, organizing, leading and controlling) are considered. Management in a global business environment and current management technologies and processes are stressed.

Offered: Spring
Prerequisites: BUS.100 or equivalent background as evaluated by instructor
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**BUS.204 Business Ethics** 2 2

This course introduces philosophical ethical theory and its application to business decisions. It considers theories of economic justice, social responsibility of corporations, regulation, conflict of interest and obligation, ethics of advertising, product quality and safety, environmental responsibility, hiring practices, and rights of employees and employers.

Offered: As Needed
Prerequisites: BUS.100
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only
BUS.291 Professional Internship 1  
Students who are currently employed will perform a business-related research project on a topic of interest to the student and his/her firm. The project will be supervised by the supervising instructor and a job site supervisor. Permission of the supervising instructor, program Coordinator, or Associate Dean of Social and Behavioral Science. Offered: Fall or Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

BUS.292 Professional Internship 2  
The objective of this course is to integrate classroom theory with business practice. Students will receive on-the-job training with selected area businesses in the public and private sectors. All internship positions will be supervised by the supervising instructor and a job site supervisor. The positions associated with this internship will be non-paying positions. Courses applicable toward the chosen curriculum and permission of supervising instructor, Program Coordinator or Associate Dean of Social and Behavioral Science programs. Applicable towards graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

BUS.293 E-Business Professional Internship  
Students who are currently employed will perform a research project on a topic of interest to the student and his/her firm. The project will be supervised by the supervising instructor and a job site supervisor. Offered: Fall or Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS and Certificate where applicable. General Education -- Not Applicable

BUS.294 E-Business Professional Internship 2  
The objective of this course is to integrate classroom theory with business practice. Students will receive on-the-job training with selected area businesses in the public and private sectors. All internship positions will be supervised by the supervising instructor and a job site supervisor. The positions associated with this internship will be non-paying positions. Offered: Fall or Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

CHD Child Development

CHD.100 Observation & Guidance Young Child  
This course introduces students to the study of child behavior through direct observation. Theory and practice of techniques for observing and recording child behavior are provided. Various guidance techniques will be introduced. Analysis of child behavior will lead to an understanding of the individual child as well as appropriate guidance techniques. Students will develop an understanding of the relationship between careful observation, analysis of behavior, communication, and effective interaction with children. Weekly participation in the campus child care is required. Prior to enrollment in any course requiring participation in the campus child care center, a student must meet all DCFS requirements, pursuant to the Illinois Child Care Act [225 ILCS 10] Reg. 923, effective 1998. An orientation of the child care center, physical exam, negative TB test, DCFS background check, and electronic fingerprinting are required prior to participation at the center. Offered: Fall Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable. General Education -- Not Applicable

CHD.101 Introduction to Early Childhood  
This survey course provides an overview of early childhood care and education including historical perspectives, basic values, structure, organization, and programming in early childhood. Professional practices of early childhood educators are outlined with an emphasis on their ability to enhance personal skills of children at these ages and stages of development. Examination of the students personal qualities in relationship to the expectations of the field is addressed throughout the course. Students will spend a minimum of 15 hours of direct observation in a variety of early childhood settings. Offered: Fall Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. ECE 911 General Education -- Not Applicable Elective Only

CHD.102 Child Growth & Development  
This course provides a foundation in the theories and principles of development from conception through early adolescence, with an emphasis on the young child. An in-depth study is made in the areas of physical, social, emotional, cognitive, language, and aesthetic development. Special emphasis is placed on the theories of Piaget, Vygotsky, Skinner, Erickson, and Gardner. Development is studied in the context of gender, family, culture, and society with an emphasis on implications for professional practice. Field observations are required. Offered: Fall Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. ECE 912 General Education -- Not Applicable Elective Only
CHD.103 Curriculum for Early Childhood  2  4  4  
This course examines the principles involved in planning, implementing and evaluating developmentally appropriate curriculum for young children. The course focuses on relationships between developmental theory, philosophy, and practice. Development of curriculum based on the needs and interests of young children and the analysis of a wide range of early childhood curriculum models is emphasized. 
Offered: Spring 
Prerequisites: CHD.100 and CHD.102 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

CHD.106 Health Safety & Nutrition  3  3  
This course provides an overview of the health, safety and nutritional needs of young children and early childhood practices to ensure children’s well-being in group settings. Content includes roles and responsibilities of adults in meeting children’s needs; the promotion of healthy lifestyle practices; understanding common childhood illnesses and injuries; meeting health, nutrition and safety standards; and planning nutritionally appropriate meals. 
Offered: As Needed 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable.  IAI Course No. ECE 902 
General Education -- Not Applicable

CHD.131 Observation and Assessment  2  4  4  
This course is designed to demonstrate to the student how to do authentic, alternative, classroom based assessment on young children. It will further provide the student with the knowledge and skills to interpret and use the information gained to plan curriculum that is responsive to and supportive of children’s learning and development. Students will have the opportunity to engage in assessment processes through means of classroom observations, providing each student with a stronger understanding of child development skills. Students will take responsibility for using a variety of age, developmentally, linguistically and culturally appropriate formal and informal assessment to gather and share information on each child’s skills, abilities, interests and needs, birth through age 8. 
Offered: As Needed 
Prerequisites: CHD.103 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

CHD.204 Exceptional Children  3  3  
This course is an overview of children with exceptional cognitive, physical, social and emotional characteristics. The curriculum includes an analysis of developmental and educational needs imposed by exceptionality. It also offers identification, and intervention strategies, methods, and programs that are designed to meet the needs, including, but not limited to, children identified as learning disabled. The course includes the historical, philosophical and legal foundations of special education, including the study of applicable federal and state laws and requirements: Individuals with Disabilities Education Act, Americans with Disabilities Act, Individualized Family Service Plan, Individualized Education Plan, and inclusive programs. The course fulfills requirements of School Code, Article 21-2a. 
Offered: As Needed 
Prerequisites: CHD.106 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  IAI Course No. ECE 913 
General Education -- Not Applicable Elective Only

CHD.205 Child-Family-Community Relations  3  3  
This course focuses on the child in the context of family, school and community. An analysis of the contemporary American family will be discussed with emphasis on family interactions which largely dictate the child's behavior and way of relating to people. Included are knowledge of other cultures, the diversity of life styles, issues of communication and the role of the school and community as social agents with our changing society. Students will gain an understanding of their professional role in strengthening family/child relationships through effective use of community resources. 
Offered: As Needed 
Prerequisites: CHD.105 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

CHD.207 Supervision & Administration  3  3  
The purpose of this course is to provide students with the skills and knowledge to successfully supervise and administer a child care program. Topics include: administrative organization, personnel policies, licensing regulation, planning and evaluation. 
Offered: Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

CHI Chinese
Courses

**CHL.101 Beginning Chinese**

This is a Chinese language course for beginners. Its aim is to help students to develop communicative competence in the four basic skills of listening, speaking, reading and writing the Chinese language. Students will learn basic vocabulary and sentence structures for use in essential everyday situations through various forms of oral and written practice. Pinyin (the most widely used Chinese phonetic system) will be taught as a tool to learn the spoken language. Students will also learn Chinese characters in order to be able to communicate effectively in real Chinese situations. Approximately 200 words and expressions in both Pinyin and characters will be taught.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

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**CHM Chemistry**

**Courses**

**CHM.100 Concepts of Chemistry**

This one-semester course is designed for individuals who have completed less than the equivalent of one year of chemistry. The fundamental concepts of general chemistry developed are appropriate for students interested in further study of chemistry as well as those students who have immediate needs for chemistry. Primary emphasis is placed upon matter, atomic structure, nuclear chemistry, periodicity, stoichiometry, and organic chemistry. A student may NOT count this course toward graduation at CSC if he/she has satisfactorily completed CHM 110 or an equivalent course prior to enrollment in CHM100.

Offered: Fall or Spring or Summer

Prerequisites: MAT.093 or one year of high school algebra

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. P1 902L

General Education -- Science Lab Science

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**CHM.110 General Chemistry 1**

This is the first semester of two courses that constitute a year's study of general chemistry. It is designed for the student planning to major in chemistry, engineering, mathematics, science, and related fields that require a comprehensive study of general chemistry. The principal emphasis is upon bonding, gas laws, stoichiometry, nuclear chemistry, and fundamental principles and theories. Laboratory experiments are designed to focus on analytical techniques of volumetric and gravimetric analysis.

Offered: Fall

Prerequisites: One year of high school chemistry or CHM.100 and MAT.099 or its equivalent

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. P1 902L

General Education -- Science Lab Science

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**CHM.120 General Chemistry 2**

This is the second course finishing the year's study of general chemistry. Primary emphasis is placed upon qualitative and quantitative instrumental techniques involving visible and infrared spectroscopy, gas chromatographic analysis. Special emphasis is given to chemical thermodynamics, electrochemistry, and other selected topics as time permits.

Offered: Spring

Prerequisites: CHM.110

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

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**CHM.140 Organic and Biochemistry**

This one-semester course is designed for individuals who need an introduction to modern organic and biochemistry. The primary interest of the student may be in agriculture, nursing, home economics, or the health sciences - areas of science requiring various degrees of background in organic and biochemistry.

Offered: Spring

Prerequisites: CHM.100 or CHM.110

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
CHM.210 Organic Chemistry 1  
4 2 5
This is the first course of two which constitute a year's study of organic chemistry. Organic Chemistry 1 is required for students planning a major in chemistry and related fields. Primary lecture emphasis is placed upon the study of organic functional groups, reaction mechanisms, nomenclature, structure, stereochemistry, and spectroscopy. The laboratory emphasizes the development of techniques to run organic reactions, to isolate and characterize the products, and the use of computational molecular modeling to gain insight into the structure and reactivity of organic molecules.
Offered: Fall
Prerequisites: CHM.110
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CHM.220 Organic Chemistry 2  
3 2 4
This is the second course of two which constitute a year's study of organic chemistry. The emphasis in lecture and laboratory is similar to that in Organic Chemistry 1, with the continued study of new functional groups and new reaction mechanisms. Further emphasis is placed upon biomolecules such as carbohydrates and proteins, with a bottom up approach (moving from small molecules to large ones) that contrasts with the top down approach typically used in biology and biochemistry courses.
Offered: Spring
Prerequisites: CHM.210
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CIS Computer Information Systems

Courses
CIS.105 Keyboarding & Comp Essentials  
2 2 3
This course will provide students with instruction in basic computer essentials, including computer hardware and software, file management, and data storage and retrieval. It will also enable students to develop minimum levels of competency in the use of alphabet, number, and symbol keys. Basic formatting rules for letters, memos, reports, and tables will be covered, as well as basic word processing concepts. Proofreading skills will be included. A minimum speed of 25 words per minute for three minutes on straight copy is required to successfully complete the course.
This course is designed for students who are not majoring in an office occupations program.
Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CIS.112 Computer Software Applications  
3 3
This course in software applications will provide students with an overview of a computer operating system and commonly used computer software. Students will gain experience with word processing and database management tasks, presentation software, and spreadsheets. Additional software programs associated with the Windows environment will be explored. This course may be used to satisfy the computer requirement common for students planning to transfer to a four-year college or university.
Offered: Fall or Spring or Summer
Prerequisites: Take AOP.101 or or BOC.107 or appropriate articulated high school credit.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CIS.116 Website Support  
1 2 2
Today's businesses understand the value and importance of a company website, although many do not understand the factors which contribute to its success. Students will be introduced to determining the best way to keep the content and design of a company website up-to-date. Students will explore various strategies that can simplify and streamline what has been called the most difficult task in web development--maintenance. Students will be exposed to proper procedures for text, images, and hyperlinks that are suitable for professional purposes.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CIS.122 Computer Information Systems  
3 3
This course is an overview of computer information systems. It is designed for the student majoring in computer information systems or various business curricula. The course may be used to fulfill the introductory course requirement in the Computer Information Systems Specialist A.A.S. degree or to meet the introductory computing course requirements for business majors at four-year colleges or universities. Computer concepts, terminology, hardware, software, operating systems, networks and career preparation topics are surveyed and discussed.
Offered: Fall or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only
CIS.124 Foundations of Information Technology 2 2 3

Foundations of Information Technology is designed for the degree seeking Computer Information System Students. This course is an overview of basic computer technology. This is a hands-on course that introduces the student to core concepts of computer technology in order to be successful in more advanced computer course. Topics include but are not limited to: Computers and Digital Basics, Hardware, Software, Operating Systems, File Management, LANs, WANs, The Internet, The Web, E-mail and Digital Media. This course also gives the student a foundation in basic office application software as well as research and presentation skills necessary to be a successful computer professional.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

CIS.128 Fundamentals of Programming 2 2 3

This course introduces a disciplined approach to problem-solving and algorithm development, and the use of various software planning and development tools necessary for the efficient solution of problems requiring computer programmed solutions. The topics of selection, repetition, and sequence control structures and program design, testing, and documentation using good programming style are covered in this course. This course will also introduce the C programming language. Emphasis is on high-level block-structure including: syntax, operators, data types, program control, pointers, arrays, I/O and disk file processing, parameters and libraries. Students will focus on analyzing, coding, compiling and debugging programs which are developed using modular and structured programming techniques. In addition to procedural methods students will also be introduced to data abstraction concepts. This course must be taken prior to enrollment in any CIS programming course.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CIS.138 Mobile Technologies 2 2 3

This course will expose students to emerging technologies, issues, and concepts in wireless and mobile networks. A variety of technologies will be studied on how they exist and function. Technologies may vary each time this course is offered as this type of technology is rapidly changing.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

CIS.144 Microcomputer Spreadsheet Applications 1 2 2

This course will provide students with skills necessary to develop and maintain a spreadsheet. The basic concepts introduced in CIS 112 will be expanded. The use of basic business mathematical formulas, functions, and statistics will be introduced. In addition, the processes for formatting and editing worksheets, managing files, creating graphs and web pages will be covered.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CIS.146 Microcomputer Database Applications 1 2 2

This course is an introduction to the management of data on personal computers. It covers the data base operations that allow a personal computer user to create and update files; order and search files; generate reports and labels; use memory variables for more complex data manipulation; and produce custom input and output forms.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CIS.152 Networking Fundamentals 3 3

This course provides an overview of various types of networks that can be implemented in a microcomputer environment. Network hardware including servers, workstations, and storage devices will be discussed. Components of connectivity, including physical and electrical topology in addition to cabling options will be examined. Students will be introduced to common network protocols and the standards that govern the construction of network components. Types of networks and the operating systems that support them will also be discussed.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
**CIS.160 Introduction to Internetworking** 2 2 3

This is the first of four courses providing students with classroom and laboratory experience in networking technologies that will provide them with the job-entry level skills in computer networking. This course introduces the architecture, structure, functions, components, and models of the internet and other computer networks. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media and operations are introduced to provide a foundation for the curriculum.

By the end of the course, students will be able to build simple LANs, perform basic configurations for routers and switches, and implement IP addressing schemes. Emphasis is given to decision-making and problem-solving techniques in applying scientific, mathematical, communication and social studies skills and concepts to network problems. Instruction and training is also provided in the proper care, maintenance and use of networking software, tools, and equipment.

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.161 Intro to Internetworking Operating Sys** 2 2 3

This is the second of four courses providing students with classroom and laboratory experience in current and emerging networking technology that will provide them with the job-entry level skills in computer networking. Course content includes, but is not limited to, the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with IPv4 and IPv6, single-area and multi-area OSPF, virtual LANs and inter-VLAN routing in both IPv4 and IPv6 networks.

Offered: Spring
Prerequisites: CIS.160
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.162 Introduction to Local Area Networks** 2 2 3

This is the third of four semester courses designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. Instruction includes, but is not limited to describing the architecture, components, and operations of routers and switches in larger and more complex networks. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Students will also develop the knowledge and skills needed to implement a WLAN in a small-to-medium network.

Offered: Fall
Prerequisites: Take CIS.161
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.163 Introduction to Wide Area Networks** 2 2 3

This is the fourth of four semester courses designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. Instruction includes, but is not limited to, safety, networking, network terminology and protocols, WAN services, Frame Relay, and High-Level Data Link Control, Point to Point Protocol, and Dial-on-Demand standards. Particular emphasis is given to the use of Frame Relay operation, use and operation of Integrated Services Digital Networks (ISDN), and the operation and function of Point to Point Protocols.

Offered: Fall
Prerequisites: Take CIS.162
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.180 Windows Network & Operating Systems** 2 2 3

This course is designed to provide an overview of networking concepts and how they are implemented in Windows. This course will help the student prepare for the Microsoft Certified Professional examination: Installing, Configuring, and Administering Microsoft Windows Prof.

Offered: Fall
Prerequisites: CIS.124 or concurrent enrollment. Students should have the following prerequisite knowledge or skills: proficiency using the Windows interface to locate, create and manipulate folders and files and to configure the desktop environment; and general knowledge of computer hardware components, including memory, hard disks, and central processing units.

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.182 Implementing Microsoft Network Infrastr**

This course is for support professionals who are new to Microsoft Windows and will be responsible for installing, configuring, managing, and supporting a network infrastructure that uses the Microsoft Windows Server products. This course will help the student prepare for the following Microsoft Certified Professional exam: Implementing and Administering a Microsoft Windows Network Infrastructure.

Offered: As Needed
Prerequisites: CIS.181 or CIS.184
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
### CIS.184 Managing Microsoft Wind Netwrk Envir

This course helps students build the skills they need on the job and for Microsoft Professional Certification as a Microsoft Certified System Administrator. This course will examine issues of network management, implementation, and troubleshooting existing network and system environments based on Microsoft Windows. This course will help the student prepare for the following Microsoft Certified Professional exam: Managing a Microsoft Windows Network Environment.

**Offered:** As Needed  
**Prerequisites:** CIS.180 
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.190 Wireless LANs

This course presents the student with knowledge and skills needed to design, install and configure wireless LANs. This course will also cover IEEE standards for wireless LANs. Other topics include in-depth coverage of wireless security and troubleshooting. This course will help the student prepare for an industry standard wireless certification.

**Offered:** As Needed  
**Prerequisites:** CIS.180 
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.211 Fundamentals of Unix

Fundamentals of UNIX instructs students in how to use the UNIX operating system and introduces the CDE, GNOME, and KDE graphical user interfaces (GUI). An overview of the Sun Solaris and Linux versions of the UNIX operating system is provided. The class is for new users of the UNIX operating environment. You will learn fundamental command-line features of UNIX including file system navigation, changing file permissions, and vi and emacs text editors. IKom and Bash shell features, and basic network use. GUI features include Application Managers, File Managers, Text Editors, printing, and mail. It is recommended to take CIS.180.

**Offered:** As Needed  
**Prerequisites:** Take CIS.180;  
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.232 Visual Basic Programming

This course uses Visual BASIC in the Windows environment. It introduces event-driven computer programming to develop graphical user interfaces in an object-oriented environment. Topics include input/output operations, sequence, interaction, arithmetic operations, array, forms, sequential files, and other related topics.

**Offered:** As Needed  
**Prerequisites:** CIS.128 
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.242 Advanced Computer Software Applications

In this course, designed as a continuation of CIS 112, students will be empowered and encouraged to develop advanced skills in the use of word processing, spreadsheet, database, presentation, and other software programs as they apply to the Windows environment.

**Offered:** Spring  
**Prerequisites:** CIS.112  
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.243 Microcomputer Spreadsheet Apps 2

In this course students will apply the concepts learned in in CIS 144 to realistic business problems. Advanced spreadsheet concepts will be covered, including formatting techniques, templates, functions, lists, filters, analysis tools, workgroups, and the process for importing and exporting data.

**Offered:** Spring  
**Prerequisites:** CIS.144  
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.244 Hardware Installation & Maintenance

This course covers the basic hardware of a microcomputer. Topics include component identification, memory systems, internal and external component installation and configuration, preventive maintenance procedures, upgrading, documentation procedures, diagnosis and troubleshooting, and basic component repair. Upon completion of the course, students should be able to select appropriate microcomputer equipment, upgrade and maintain existing equipment, and diagnose and repair non-functional components.

**Offered:** Spring  
**Prerequisites:** CIS.180  
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**

### CIS.247 Microcomputer Database Applications 2

This course is a continuation of CIS 146. Students will explore the database operations needed to create and update files; order and search files; generate reports and labels; use memory variables for more complex data manipulation; and produce custom input and output forms.

**Offered:** Spring  
**Prerequisites:** CIS.146  
**Applicable toward graduation at Sandburg where program structure permits:**  
**Degree or Certificate:** AAS, AGS, and Certificates where applicable. 
**General Education -- Not Applicable**
**CIS.248 Presentation Graphics** 2 2 3

This course is designed for the student to explore the capabilities of presentation graphics programs. Outlining, drawing, graphing, and template features will be used to create visuals (slides and overheads), speaker’s notes, and audience handouts.
Offered: Spring
Prerequisites: CIS.112
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.272 Internship** 10 2

This course is a planned and supervised occupational work experience at selected work sites using microcomputer systems. Job tasks are organized to include those of a beginning, intermediate and advanced nature so as to provide exposure to the total operation of a microcomputer based data processing/information system. This internship requires a minimum of 160 clock hours of on-the-job activities.
Offered: Spring or Summer
Prerequisites: CIS.244 or concurrent enrollment and a GPA of 3.0. This is also subject to availability of a work site and successful completion of an interview with the work site supervisor. Students who do not meet the prerequisite requirements or have special circumstances that prevent them from completing this course will be required to enroll in another CIS or CIT course approved by the Coordinator or Dean of Career Technical & Health Education
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.281 Administering Microsoft Sql Server** 2 2 3

This course provides students with the knowledge and skills required to install, configure, administer, and troubleshoot Microsoft SQL Server client/server database management system. This course will help the student prepare for the following Microsoft Certified Professional exam: System Administration for Microsoft SQL Server.
Offered: As Needed
Prerequisites: CIS.181
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIS.282 Designing a Secure Windows Network** 2 2 3

This course provides students with the knowledge and skills necessary to design a security framework for small, medium, and enterprise networks by using Microsoft Windows technologies. This course contains four units that describe the securing of specific areas of the network: Providing Secure Access to Local Network Users, Providing Secure Access to Remote Users and Remote Offices, Providing Secure Access Between Private and Public Networks, and Providing Secure Access to Partners This course will help the student prepare for the following Microsoft Certified Professional exam: Exam, Designing Security for a Microsoft Windows Network.
Offered: As Needed
Prerequisites: CIS.180 or CIS.181
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIT Computer Information Systems**

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<thead>
<tr>
<th>Courses</th>
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<th>Hr/Wk</th>
<th>Sem</th>
<th>Lect/ Clin</th>
<th>Lab</th>
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<tbody>
<tr>
<td>CIT.185 Ethical Hacking &amp; Netwrk Dfens</td>
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Hands-on Ethical Hacking and Network Defense introduces the art of ethical hacking and security testing and prepares students to be efficient security professionals. This course covers the tools and techniques that ethical hackers and security testers use to discover vulnerabilities and offers solutions to protect computer networks. In addition to learning fundamental security testing concepts, students gain practical knowledge in computer programming in documentation of security tests and in ethical and legal ramifications and discover that critical thinking skills and creativity are essential in security testing.
Offered: Fall or as Needed
Prerequisites: CIS.180
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
**CIT.186 Security + Fundamentals** 2 2 3

In this course, we will take an in-depth look at network security concepts and techniques, including basic security principles, establishing security baselines, and the most recent attack and defense techniques and technologies. We will learn how to harden a network to resist attacks, protect basic and advanced communications, and use cryptography and Public Key Infrastructure (PKI) to thwart attackers. We will also discuss establishing security policies and procedures and managing security efforts to prepare students for the ongoing challenge of securing information. Maps to CompTIA's Security+ Certification exam.

Offered: Fall
Prerequisites: CIS.180
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIT.212 Linux Networking & Security** 2 2 3

Linux Networking & Security is intended for students and professionals who need to understand computer networking and security technology in the context of a Linux-based server. The focus is practical, with hands-on descriptions of many programs and Web sites used by working system administrators. The text and pedagogical features are designed to provide an interactive learning experience. Each chapter includes hands-on projects that lead students through various tasks in a step-by-step fashion. Each chapter also contains case projects that place the students in the role of problem solver, requiring them to apply concepts presented in the chapter to a situation that might occur in a real-life work environment. Objectives map to the current Linux Professional Institute (LPI)/Linux Certified Administrator certifications.

Offered: Fall
Prerequisites: CIS.211
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**CIT.250 Cisco Firewall Security** 1 4 3

This course is an Introduction to Network Security focusing on the overall security processes with particular emphasis on hands on skills in the following areas: security policy design & management; security technologies, products & solutions; firewall and secure router design, installation, configuration, & maintenance; AAA implementation using routers and firewalls; Intrusion Detection (IDS) implementation using routers and firewalls; and VPN implementation using routers and firewalls. Upon completion students should be prepared to take the SECUR and CSPFA exams in preparation for the Cisco Firewall Specialist. These exams also count towards the CCSP certification. Students will also be prepared to take the CompTIA Security+ exam.

Offered: As Needed
Prerequisites: CIS.161 or CCNA Certification
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**Courses**

**COS.101 Introduction to Cosmetology Theory** 5 5

This course is designed to provide an introduction to cosmetology which includes the areas of professional development, salon ecology, chemistry, salon business, electricity, trichology, design decisions, and hair sculpture. Admission to the Cosmetology program is required.

Offered: Fall or Spring
Prerequisites: A COMPASS Reading score of 83 or higher or RDG.096 with a grade of C or better, or an ACT Reading score of 20 or higher. COMPASS Writing score of 38 or higher or ENG.098 with a grade of C or better. A COMPASS Pre-algebra score of 47 or higher or MAT.090 with a grade of C or better, and a COMPASS Algebra score of 26 or higher or MAT.090 with a grade of C or better.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**COS.102 Introduction to Cosmetology Lab** 5 9 8

This course introduces the student to the basic cosmetology skills and design principles while primarily learning with peers and manikins. Admission to the Cosmetology program is required.

Offered: Fall or Spring or Summer
Prerequisites: Concurrent enrollment in COS.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**COS.103 Preclinical Cosmetology** 21 7

This course provides the student an opportunity to put into practice the principles learned in COS 101 and COS 102. Admission to the Cosmetology program is required.

Offered: Fall or Spring or Summer
Prerequisites: Concurrent enrollment in COS.101 and COS.102
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**COS.111 Technical Aspects of Cosmetology Theory** 5 5

This course focuses on cosmetology theory relating to hairstyling, wigs and hair addition, chemical texturizing, hair color, nails, and skin. Admission to the Cosmetology program is required.

Offered: Fall or Spring or Summer
Prerequisites: COS.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
### COS.112 Technical Aspects of Cosmetology Lab

This course is designed to obtain proficiency and skills in cosmetology principles while working with peers and manikins.
Offered: Fall or Spring or Summer
Prerequisites: COS.102
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.113 Technical Aspects of Cosmetology Clinic

This course is a laboratory experience where the student has opportunity to put into practice principles learned in COS 111 and COS 112.
Offered: Fall or Spring or Summer
Prerequisites: COS.103
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.121 Cosmetology Theory

This course is designed to provide an introduction to cosmetology which includes the areas of professional development, salon ecology, chemistry, salon business.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.122 Cosmetology Lab

This course introduces the part-time and vocational-tech student to basic cosmetology skills and design principles.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.123 Cosmetology Lab

This course provides the student an opportunity to put into practice the principles learned in COS 121 and 122.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.131 Cosmetology Theory

This course is designed to cover cosmetology theory relating to chemistry as applied to cosmetology, artificial hair, salon management, electricity and light therapy, and removing superfluous hair.
Offered: Fall or Spring or Summer
Prerequisites: COS.121
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.132 Cosmetology Lab

This course introduces the opportunity for part-time and vo-tech students to put into practice the principles learned in COS 131.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.133 Cosmetology Lab

This course provides the student an opportunity to put into practice the principles learned in COS 131 and 132.
Offered: As Needed
Prerequisites: COS.123
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.141 Cosmetology Theory

This course focuses on cosmetology theory relating to hairstyling, wigs and hair additions, chemical texturizing, and chemical restructurizing.
Offered: As Needed
Prerequisites: COS.131
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.142 Cosmetology Lab

This course is the third in a sequence of cosmetology labs. It is designed to obtain proficiency and skill in cosmetology principles.
Offered: As Needed
Prerequisites: COS.132
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.143 Cosmetology Lab

This course provides the student an opportunity to put into practice the principles learned in COS141.
Offered: As Needed
Prerequisites: COS.121
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

### COS.151 Cosmetology Theory

This course is designed to cover cosmetology theory relating to chemistry as applied to cosmetology, artificial hair, salon management, electricity and light therapy, and removing superfluous hair.
Offered: Fall or Spring or Summer
Prerequisites: COS.121
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
**COS.152 Concepts of Cosmetology Lab**  
7.5  2.5  
This course is the fourth in a sequence of cosmetology labs. It is designed to obtain proficiency and skill in cosmetology principles.  
Offered: As Needed  
Prerequisites: COS.142  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable  

**COS.153 Concepts of Cosmetology Lab**  
10  3.5  
This course provides the student an opportunity to put into practice the principles learned in COS 151 and 152.  
Offered: As Needed  
Prerequisites: COS.121  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.161 Concepts of Cosmetology Theory**  
3  3  
This course is designed to cover cosmetology theory encompassing Illinois law, cells, anatomy, and physiology.  
Offered: Fall or Spring or Summer  
Prerequisites: COS.101 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.162 Concepts of Cosmetology Lab**  
1  9  4  
This course explores cosmetology skills and knowledge to include retail sales, long hair design, advanced men’s & women’s cutting, advanced color techniques and client consultation.  
Offered: Fall or Spring or Summer  
Prerequisites: COS.112  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.163 Concepts of Cosmetology Clinic**  
9  3  
This course provides the student an opportunity to put into practice the principles learned in COS 161 and 162. Admission to the Cosmetology program is required.  
Offered: Fall or Spring or Summer  
Prerequisites: COS.113  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.201 Student Teaching Fundamentals**  
3  6  6  
This course is structured to provide student teachers with the knowledge of how to prepare and organize subject matter to be presented on a unit-by-unit basis. The student teacher should become familiar with lecturing, demonstrating, testing, and giving assignments both in theory and practical application. This course may only be taken with consent of the instructor.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.202 Supervised Teaching**  
16  3  
This course is structured to give the student teacher the opportunity to present theory and practical demonstrations to cosmetology students in the basic cosmetology curriculum. The student teacher will need to recognize potential problems and make changes in the presentation to help the students. This course may only be taken with instructor consent.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.203 Business Procedures**  
2  1  2.5  
In this course, the student will become familiar with business methods which include inventory, record keeping, interviewing, supplies and The Illinois Barber, Cosmetology & Esthetics Act of 1985 and 68 Ill. Adm. Code 1175. This course may only be taken with instructor consent.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.204 Educational Psychology - Cos Teachers**  
3  3  
This course will include topics in the educational objectives, student characteristics and development, the learning process and an evaluation of learning which relates to teaching Cosmetology. This course may only be taken with instructor consent.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**COS.205 Teaching Methods-Cos Teacher**  
3  6  5  
This course examines the different methods of teaching and learning as they apply to education in the area of Cosmetology. The individual will study lesson planning and design, lesson delivery, assessment of learning performance, classroom management, student motivation and classroom climate. This course may only be taken with instructor consent.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable
CRM 101 Introduction to Criminal Justice  
This course will constitute a survey of the entire triad of the American criminal justice system: law enforcement, judiciary, and corrections. Basic terminology and concepts, the foundation philosophy, general examination of criminal law, survey of each area of the triad and their interrelatedness, and the role of the social sciences will be emphasized. In addition, a general examination will also be made of American civil law. 
Offered: Fall or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 102 Police Administration & Management  
This course will examine the evolution of American policing, external influences and controls on the police, organizational theory, management styles, labor relations, and the selection process for police personnel. 
Offered: Fall or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 121 Juvenile Justice  
This course covers the history and philosophy of the juvenile justice system, legal procedure in the juvenile court, characteristics of juvenile offenders, theories of causation, and treatment and control of offenders. Special emphasis will be placed on the failure of parens patriae and the birth of constitutional rights for juveniles, and the increased emphasis on personal accountability. 
Offered: Spring or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 141 Introduction to Corrections  
This course is concerned with the evolution of societal reaction to law breakers, the sentences and the goals they seek to obtain, and the influence of the ongoing struggle between the rights of the individual and society on the correctional system. Furthermore, within the context of the individual versus society struggle, there is a detailed examination of rehabilitation versus punitive philosophies, why rehabilitation failed, and the current philosophical foundation of American corrections. 
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 151 Criminal Justice & Community Relations  
This course is designed to provide the student with an awareness of the problems confronting police in our turbulent society and possible courses of action which they might pursue in coping with these problems. The emphasis will be on the American pluralistic society, the various ethnic and racial groups, and their relations with each other and the police. 
Offered: Spring or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 172 Introduction to Security  
This course provides students with an understanding of the basic principles underlying private security issues. The core of the course content deals with risk and threat assessment. The course examines the relationship between the private and public sectors. Legal issues, as well as ethical issues, pertaining to security will be discussed. Other topics include theory and history of security, physical security, interruption, disaster preparedness, employee theft, substance abuse in the workplace, and security management. It is designed for students seeking a career in private and public security services. 
Offered: Spring or as Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM 222 Communication in Criminal Justice  
This course presents the basic concepts of the communication process as it applies to law enforcement. Emphasis will be placed on the importance of written, verbal and nonverbal communication within the criminal justice field. An individual may not count ENG 120, in addition to this course, toward graduation. 
Offered: Spring
Prerequisites: CRM 101, ENG 101 or concurrent enrollment
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
CRM.231 Procedural Law for Police

Since procedural criminal law is concerned with the proper implementation of substantive criminal law, this course will provide the student with the opportunity to study and analyze the laws behind the various procedures dealing with the questioning of suspects through testifying in court.

Offered: Fall or as Needed
Prerequisites: CRM.101 or concurrent enrollment and ENG.101 or concurrent enrollment.

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM.261 Criminal Law

This course will inquire into basic concepts of criminal law, crimes against persons and property, other criminal conduct, and the punishments as designated by the nature of the crimes.

Offered: Spring
Prerequisites: CRM.101, CRM.231, ENG.101 or concurrent enrollment
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

CRM.262 Criminal Justice Internship

This work experience in criminal justice provides the student an opportunity for practical application of fundamentals and techniques studied in the classroom. The student will be required to spend 200 hours or more within that criminal justice agency most appropriate to their career orientation. Any student working full time within a criminal justice agency will be allowed credit for this course upon approval by the Criminal Justice Coordinator. Any student with a grade point average of less than 2.0 will be required to take another course selected in consultation with the Criminal Justice Coordinator in lieu thereof.

Offered: As Needed
Prerequisites: CRM.101 and four or more of the required criminal justice courses, plus permission of the criminal justice coordinator, ENG.101 or concurrent enrollment, and a grade point average of at least 2.0
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

CRM.271 Criminal Investigation

This course covers advanced methods of case preparation and criminal investigation; analysis of physical evidence, undercover work; and examination of sex, drug and gambling cases.

Offered: Fall
Prerequisites: CRM.101 or concurrent enrollment and ENG 101 or concurrent enrollment
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

DCS Diagnostic Cardiac Sonography

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<th>Courses</th>
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<td>Lect/</td>
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DCS.256 Cardiac Sonography 1

This course introduces the student to the field of diagnostic cardiac sonography and its role in health care delivery. Students will be oriented to both the academic and administrative structure of the program and its clinical affiliates. An introduction to basic skills and an understanding of cardiac medical terminology, pharmacology and monitoring will be emphasized. Students will be introduced to the anatomy and function of the heart, the peripheral venous and arterial systems and their associated structures. This class is vital to an understanding of the basic anatomy and physiology of the cardiovascular system and how it relates to cardiac function. Exam protocols, imaging techniques, standard imaging views for an adult, and echocardiographic examination will be covered. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

DCS.257 Cardiac Sonography Practicum 1

This practicum course involves supervised clinical experience in affiliate hospitals, clinics, and/or imaging centers. This course builds on knowledge, skills, and attitudes acquired in DCS 256. Students will demonstrate an increased degree of competency in performing cardiac imaging procedures and analyzing the technical quality of the examination. In addition the student will be required to perform basic imaging and technical competencies. Course includes clinical seminars. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable
**DCS.266 Cardiac Sonography II**  
4  4

This continuation course of DCS 256 addresses cardiac pathology in the adult patient and its effect on the human system. Causes, symptoms, and treatments of cardiac diseases will be discussed. The effects of cardiovascular disease are correlated with changes seen on images in a clinical setting. Imaging and Doppler techniques used in the evaluation of cardiac pathology and diagnosis will be presented. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Spring or Summer
Prerequisites: Take DCS.256 or consent of instructor.

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.267 Cardiac Sonography Practicum II**  
30  6

This practicum course involves supervised clinical experience in affiliate hospitals, clinics, and/or imaging centers. This course builds on knowledge, skills, and attitudes acquired in DCS 257. Students will demonstrate an increased degree of competency in performing cardiac imaging procedures and analyzing the technical quality of the examination. In addition the student will be required to perform basic imaging and technical competencies. Course includes clinical seminars. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.266 Cardiac Sonography III**  
4  4

This continuation course of DCS 266 further studies pathology of the adult heart. Cardiac hemodynamic measurements and formulas will be covered. Students will be introduced to advanced imaging techniques used in the lab to investigate various cardiac disease states. Additional techniques used in a progressive clinical environment and future applications in the field will be explored. In addition, students will be introduced to various professional governing agencies and explore avenues for professional growth and development. Admission to the Diagnostic Cardiac Sonography Program.

Offered: Fall
Prerequisites: Take DCS.266 or consent of instructor

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.267 Cardiac Sonography Summer Practicum**  
22  4.5

This summer practicum course involves 4 days per week of supervised clinical experience in affiliate hospitals, clinics and/or imaging centers. This extensive clinical rotation provides students with the opportunity to further refine skills in performing cardiac sonography procedures and analyzing the technical quality of the examination. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Summer

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.276 Cardiac Sonography III**  
4  4

This continuation course of DCS 276 further studies clinical applications of cardiac sonography including an overview of pediatric and fetal echocardiography. This course will also provide students with an understanding of additional modalities used for diagnostic imaging of the human heart including nuclear medicine, magnetic resonance computed tomography, and cardiac catheterization. Students will also be provided with review sessions to prepare for certification exams. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.278 Cardiac Image Interpretation & Critique**  
2  2

This course provides students with an opportunity for further study in the recognition of pathological conditions as demonstrated sonographically. Case studies will be presented and reviewed in the examination categories covered. Disease-specific imaging protocols will be discussed in addition to analysis of the technical quality of the examination. Admission to the Diagnostic Cardiac Sonography Program.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

**DCS.286 Cardiac Sonography IV**  
4  4

This continuation course of DCS 286 further studies clinical applications of cardiac sonography including an overview of pediatric and fetal echocardiography. This course will also provide students with an understanding of additional modalities used for diagnostic imaging of the human heart including nuclear medicine, magnetic resonance computed tomography, and cardiac catheterization. Students will also be provided with review sessions to prepare for certification exams. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable
**DCS.287 Cardiac Sonography Practicum III**

This practicum course involves clinical experience in affiliate hospitals, clinics, and/or imaging centers. This extensive clinical rotation provides students with the opportunity to further refine their skills in performing basic cardiac imaging procedures and analyzing the technical quality of the examination. Advanced scanning procedures, methods, and experience are also provided in this course. Students will integrate patient history and physical findings to determine the appropriate course for the diagnostic exam. Continued development and demonstration of an increasing level of competence relating to critical thinking skills and problem solving in the clinical area will be developed. Students will demonstrate an increasing level of speed and efficiency in performing exams. Successful completion of professional and technical scanning proficiencies are required. Course includes clinical seminars. Admission to the Diagnostic Cardiac Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**DHG Dental Hygiene**

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<th>Courses</th>
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**DHG.109 Preclinical Laboratory**

Preclinical Laboratory is designed to provide the student with the opportunity to develop skills and apply didactic information from Fundamentals of Dental Hygiene (DHG 110) while working in the simulation laboratory. Instrumentation techniques are introduced to the student via instructor demonstrations and other visual aids followed by students practicing on manikins in the simulation laboratory. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS, AGS, and Certificates where applicable.

General Education -- Not Applicable

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**DHG.110 Fundamentals of Dental Hygiene**

Fundamentals of Dental Hygiene, in conjunction with Preclinical Lab and Dental Hygiene Practice I, is designed to introduce the student to the fundamental concepts of dental hygiene practice: instrumentation; instrument sharpening; assessment of health; dental and periodontal status of patients; infection control and OSHA regulations. This course closely integrates theory and practice thus providing a base from which the learner may develop the skills, knowledge, and judgment required to adequately serve the public in the profession of Dental Hygiene. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Prerequisites: Admission to the Dental Hygiene program

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

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**DHG.112 Dental Radiology**

This course prepares the student to obtain the necessary fundamentals and background to expose and process dental radiographs. Emphasis is placed on the characteristics of radiation, radiation safety and monitoring, radiation production, operation of the x-ray unit, intraoral and extraoral radiographic films, processing and mounting radiographs, and identification of anatomical landmarks. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

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**DHG.113 Preventive Dentistry**

This course provides the learner with the basic understanding of patient education with an emphasis on individual oral health counseling. Preventive Dentistry introduces the learner to the fundamental concepts of dental plaque, healthy and diseased gingival tissues, oral hygiene aids and techniques, dental caries, fluorides, and other topics and techniques related to the prevention of oral diseases. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable
**DHG.114 Head/Neck & Oral Anatomy**  
3 3

Head, Neck and Oral Anatomy is a fundamental, basic theory course upon which other dental hygiene courses are built. This course includes concepts of dental nomenclature, tooth development, dental anatomy, functions of the teeth, identification of oral structures, and occlusion. It also contains information specific to the nerve and blood supply to the head and neck as well as osteology of the skull and musculature of facial expression and mastication. Learning experiences are provided in both the classroom and laboratory settings. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**DHG.115 Dental Hygiene Practice 1**  
6 2

Dental Hygiene Practice I is designed to provide the student with the opportunity to develop skills and apply didactic information from Preclinic Laboratory (DHG 109) and Fundamentals of Dental Hygiene (DHG 110) to the clinical setting. Instrumentation techniques are introduced to the student via instructor demonstrations and other visual aids followed by students practicing with peer patients in the clinic setting. Dental Hygiene Practice I provides the student with the opportunity to develop data collection skills, i.e. intra and extraoral examinations, dental and periodontal assessments and charting through practice with classmates in the clinic. Admission to the Dental Hygiene program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**DHG.118 Oral Histology & Embryology**  
1 1

This course includes concepts of the embryological development of orofacial organs and structures as well as microscopic investigation of oral tissues and structures. Students will become acquainted with the derivation and maturation of the hard and soft tissues of the oral cavity that will be necessary to analyze and/or provide treatment in the clinical setting.

Offered: Spring

Prerequisites: Successful completion of first year, fall semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**DHG.119 Periodontology 1**  
2 2

This course includes study of the histologic and clinical characteristics of periodontal diseases. Study of the supporting structures of teeth in health and disease will be included. Normal, pathological and etiologic considerations are discussed. Emphasis is placed on recognition of causative factors and preventive measures, which might control the advancement of destructive periodontal disease. Synthesis of knowledge for case application is emphasized. Current research in periodontology and the role of the dental hygienist in periodontal therapy will be investigated.

Offered: Spring

Prerequisites: Successful completion of first year, fall semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**DHG.120 Dental Hygiene 2**  
2 2

This course focuses on the fundamental knowledge and skills necessary to begin to provide dental hygiene services for patients in the dental hygiene clinic. Concepts in treatment planning, assessment of the oral cavity for the clinical patient, preventive dentistry for the clinical patient, debridement of hard and soft deposits in the oral cavity for the clinical patient, and evaluation of dental hygiene services will utilize information and skills learned in the previous semester. Along with building upon previously learned concepts, information concerning common medical emergencies in the dental office, tobacco prevention and cessation intervention, and pain control, will also be covered.

Offered: Spring

Prerequisites: Successful completion of first year, fall semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**DHG.125 Dental Hygiene Practice 2**  
12 4

The purpose of Dental Hygiene Practice II is to further the students clinical experience in the clinical setting. Application of dental hygiene clinical techniques learned in Preclinic Laboratory (DHG 109), Fundamentals of Dental Hygiene (DHG 110) and Dental Hygiene Practice I (DHG 115) will be built upon. Emphasis will be placed on skills for patient assessment, instrumentation, evaluation and documentation during the dental hygiene appointment. Other areas of focus include sequencing of treatment according to patient needs and time factors and comprehensive care for the dental hygiene patient. The first two weeks of the course will focus toward treatment of the first patient to be appointed with the student.

Offered: Spring

Prerequisites: Successful completion of first year, fall semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
**DHG.200 Dental Hygiene 3**  
2 2

The purpose of this course is to further the student's ability to provide comprehensive dental hygiene care to clinical patients. It will cover the didactic information necessary to enable the student to correctly perform various procedures for patients in Dental Hygiene Practice III (DHG 205) and to understand the rationale behind the indications and contraindications for the procedures learned. Procedures that will be learned include advanced instrumentation, pit and fissure sealants, periodontal debridement involving the ultrasonic scaler, use of the air polisher for stain removal, application of chemotherapeutic agents, alginate impressions and pouring of study models, and analyzing diet record for nutritional counseling. The concepts of decision making, responsibility, accountability, and professionalism will be expanded upon to assist the student in enhancing proficiency in the development of dental hygiene treatment plans, as well as the assessment of medical, dental, and periodontal status of patients.

Offered: Summer

Prerequisites: Successful completion of first year, spring semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DHG.205 Dental Hygiene Practice 3**  
9 3

The purpose of this course is to further the development of the instrumentation and assessment skills acquired in previous dental hygiene courses through treatment of patients of a more difficult caliber. Integration of didactic and clinical experiences will allow for the introduction and development of pit and fissure sealant placement, ultrasonic scaling, air polishing, periodontal debridement, application of chemotherapeutics, caries counseling, and alginate impressions. Emphasis will be placed on improvement of instrumentation, enhancing proficiency in the development of dental hygiene treatment plans, assessment of medical, dental, and periodontal status of patients, and increasing efficiency with patient treatment.

Offered: Summer

Prerequisites: Successful completion of first year, spring semester dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DHG.210 Dental Hygiene 4**  
2 2

This course is designed to aid the student in understanding the numerous special needs that are present in people in our society, ranging from cardiovascular disease to mental disorders, childhood diseases to geriatrics. Emphasis will be placed on the medically/physically compromised patients who present for dental hygiene treatment either in a clinical setting or hospital setting. Treatment planning for these compromised patients will be discussed.

Offered: Fall

Prerequisites: Successful completion of second summer session dental hygiene courses and BIO.200 BIO.211 and BIO.212.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DHG.211 Community Dental Health**  
2 2

This course provides a spectrum of experience, which contributes to the continuing development of insight into community problems and understanding the needs of people. It stimulates awareness of community action and community dental health program development. It provides an understanding of how private practice dentistry and community dental health can work together to meet the needs of the community. When completed, the student has a working knowledge of community dental health.

Offered: Fall

Prerequisites: Successful completion of second summer session dental hygiene courses

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DHG.212 Pathology**  
2 2

This course is an introduction to pathology relating causative factors to clinical manifestations. The study of gross and microscopic lesions of the teeth and related oral tissues will be included. Emphasis is placed on concepts of development/growth disturbances, diseases of microbiological origin, injury and repair, metabolic disturbances, and oral manifestations of various diseases and conditions.

Offered: Fall

Prerequisites: Successful completion of second summer session dental hygiene courses, BIO.211, BIO.212 and DHG 118.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DHG.213 Pharmacology**  
2 2

The purpose of this course is to familiarize dental hygiene students with drugs most used and/or prescribed by dental offices as well as drug groups used to treat medical conditions. Emphasis will be placed on appropriate and thorough evaluation of medical histories. Referencing material related to pharmacology will also be emphasized.

Offered: Fall

Prerequisites: Successful completion of second summer session dental hygiene courses and BIO.211 BIO.212 BIO.200 with a grade of C or better.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable
DHG.215 Dental Hygiene Practice 4  

The purpose of this course is to further clinical experience in the practical application of oral prophylaxis techniques. Emphasis will be placed on improvement of the student's abilities in periodontal debridement, professionalism, and treatment planning. Students will be responsible for patient care including assessment, thorough in-depth treatment planning, plaque control programs, tobacco cessation education, nutritional counseling, periodontal debridement of periodontally involved patients and medically compromised patients, polishing, fluoride therapy, and maintenance therapy. Completion of these services will further the student's abilities to provide comprehensive dental hygiene treatment based on the individual patient needs. 

Offered: Fall  
Prerequisites: Successful completion of second summer session dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DHG.217 Clinical Applications Pain/Anxiety Ctrl 2 1

This course focuses on the clinical applications of controlling the dental hygiene patient's pain and anxiety through the administration of local anesthesia and/or nitrous oxide. The student will develop skills in the administration of local anesthesia in the oral cavity along with learning how to administer and monitor nitrous oxide. 

Offered: Spring  
Prerequisites: Successful completion of second year, fall semester dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DHG.218 Dental Office Management & Jurisprudence 2 2

This course prepares the graduating dental hygiene student to manage the telephone, schedule appointments, maintain patient records, receive payment, and complete third-party reimbursement forms in the private practice dental setting. The student will also learn to enter date for charges and payments, manage recall systems, maintain inventory, and written correspondence with other dental professionals. Along with the office skills, students will discuss legal and ethical dental hygiene practice issues, develop a resume, and learn interviewing skills. Students will also review for the state dental hygiene practice acts for Illinois and Iowa in preparation for the state jurisprudence examination. 

Offered: Spring  
Prerequisites: Successful completion of second year, fall semester dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DHG.219 Periodontology 2

This course focuses on surgical aspects of periodontology. The student will develop basic knowledge on the role of occlusion in periodontal health and disease, principles of periodontal surgery, management of soft tissue, dental implants, implant maintenance, and periodontal emergencies. 

Offered: Spring  
Prerequisites: Successful completion of second year, fall semester dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DHG.220 Dental Hygiene 5 1 2 2

This course is designed to prepare the student to make the transition from the educational setting to the real world of dental hygiene by covering dental specialties, advanced treatment planning, and preparation for the National Dental Hygiene Board Examination. This course includes a study of the rationale, indications and/or contraindications for amalgam polishing, periodontal dressings, rubber dams, suture removal, and dental cements/liners/varnishes. Emphasis will be placed on treatment planning for comprehensive dental hygiene care as would be expected in private practice. Preparation for the National Dental Hygiene Board Examination will involve deliberation of case studies as a review of all topics covered on the examination. 

Offered: Spring  
Prerequisites: Successful completion of second year, fall semester dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DHG.225 Dental Hygiene Practice 5 15 5

The purpose of this course is to further clinical experience in the practical application of dental hygiene clinical techniques and providing comprehensive care for the patient in preparation of the student entering the real world of dental hygiene. Emphasis will be placed on the student's ability to improve upon periodontal debridement, professionalism, and treatment planning. Students will be responsible for patient care including assessment, thorough in-depth treatment planning, plaque control programs, tobacco cessation education, nutritional counseling, periodontal debridement of periodontally involved patients and medically compromised patients, polishing, fluoride therapy, and maintenance therapy. Completion of these services will further the student's abilities to provide comprehensive dental hygiene treatment based on the individual patient needs in an efficient manner as expected in private practice. 

Offered: Spring  
Prerequisites: Successful completion of second year, fall semester dental hygiene courses 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable

DMS Diagnostic Medical Sonography
Courses

**DMS.250 Ultrasound Physics & Instrumentation**  

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This course initially examines the nature and physical properties of sound waves. Emphasis is placed on the attenuation and transmission behaviors of an ultrasound beam as it encounters human tissue of a differing impedance. The instruments used to generate and receive ultrasound for medical imaging purposes are studied with respect to their operating characteristics. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.252 Abdominal Sonography**  

This course introduces students to general sonography beginning with the techniques and protocols of abdominal imaging. Anatomical variations and pathological conditions are studied with respect to their sonographic appearance. Emphasis is also placed on the acquisition of pertinent clinical history and the evaluation of laboratory and related imaging reports. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.255 Sonography Practicum 1**  

This practicum course involves 3-4 days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. Assignments are made to enable students to begin achieving competency in performing general sonography procedures. Course includes clinical seminars. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.262 OB/GYN Sonography**  

This course covers imaging of both the non-gravid and gravid female. In gynecologic sonography the normal and pathological appearance of the ovaries, uterus and fallopian tubes is emphasized. Obstetrical imaging focuses on the pregnant and post-partum uterus and normal vs. abnormal fetal growth and development in the first, second and third trimesters. Sonographic identification of major congenital abnormalities is also stressed. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Summer (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.264 Abdominal Sonography & Superficial**  

This course covers the sonographic evaluation of selected abdominal and superficial structures. Scanning protocols and normal vs. abnormal sonographic findings associated with each procedure are studied. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Summer Or Spring (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.265 Sonography Practicum 2**  

This practicum course involves 3-4 days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. Assignments are made to enable students to gain further competency in performing sonography procedures and analyzing the technical quality of the examination. In addition the student will be required to perform select basic imaging and technical competencies. Course includes clinical seminars. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring (alternating)

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.274 Sonography Critique**  

This course provides students with an opportunity for further study in the recognition of pathological conditions as demonstrated sonographically. Case studies will be presented and reviewed in the examination categories covered to date. Disease-specific imaging protocols will be discussed, in addition to analysis of the technical quality of the examination. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall and Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable
**DMS.275 Sonography Summer Practicum** 25 5

This summer practicum course involves 4 days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. This extensive clinical rotation provides students with the opportunity to further refine their skills in performing sonography procedures and analyzing the technical quality of the examination. Successful completion of select professional and clinical competencies is required. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.282 Vascular Technology** 4 4

This course introduces students to the use of ultrasound in assessing vascular anatomy and physiology. Following a unit on the dynamics of circulation, students will study basic imaging and non-imaging methods used to examine selected peripheral, abdominal, and cerebrovascular structures. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.284 Advanced Physics & Instrumentation II** 2 2

As a continuation of DMS 250, this course begins by examining the physical principles of Doppler and color flow ultrasound and the types of equipment used to image and measure vascular flow. Continuous wave, pulsed wave, color flow, and power Doppler techniques are addressed with emphasis on the differences in their ability to quantify or qualify information. Students will evaluate spectral traces as well as both grayscale and color images as they study the data acquisition methods and learn to differentiate between normal and abnormal display patterns. Students will identify image artifacts and study methods for their use or elimination. Relationships between ultrasound intensity and time are also addressed as they relate to potential bioeffects and safety. Quality assurance standards and procedures are emphasized as image and spectral display characteristics of all types of equipment are evaluated.

Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring

Prerequisites: DMS.250

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DMS.285 Sonography Practicum 3** 30 6

This final practicum course involves 3-4 days per week of clinical experience in affiliate hospitals, clinics, imaging centers, and/or vascular laboratories. Assignments are made to provide students with the opportunity to further refine their skills in performing imaging procedures and analyzing the technical quality of the examination. Advanced scanning procedures, methods, and experience are also provided in this course. Students will integrate patient history and physical finding to determine the appropriate course for the diagnostic exam. Continued development and demonstration of an increasing level of competence. Continued development and demonstration of an increasing level of competence relating to critical thinking skills and problem solving in the clinical area will be developed. Students will demonstrate an increasing level of speed and efficiency in performing exams. Successful completion of professional and technical scanning proficiencies are required.

Course includes clinical seminars. Admission to the Diagnostic Medical Sonography program is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**DTT Diesel Power Technology** Hr/Wk Hr/Wk Sem Lect/ Clin Cr Disc Lab Hr

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<td><strong>DTT.107 Engine Systems Locomotive</strong> 4 8 6</td>
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Instruction in the course will deal with identification of engine systems and components used to power locomotives. Instruction will include theory of operation of 2 and 4 stroke diesel engines and an introduction to lubrication, cooling, fuel, governing. Systems studied will include: crankshaft and valve arrangement and timing; cylinder head and valve train; pistons, rings and connecting rods. The use of necessary measuring and reconditioning tools will be taught, emphasizing safety and proper methods of their use. The emphasis in this class will be on operation, disassembly procedures and recognition of wear and failure of parts. Rebuilding techniques will be demonstrated and discussed.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable
**DTT.150 Dealership Management**  
3 3  
This course is designed to acquaint the student with the business and management aspects in a farm implement dealership. The dealership will be studied as a complete business consisting of the following profit centers: service department, parts department, sales department. Management issues such as customer relations, employer and employee rights and responsibilities, liability, hiring, firing, and accountability will be presented.  
Offered: Fall or Spring  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS and Certificates where applicable.  
General Education — Not Applicable

**ECO Economics**

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<td><strong>ECO.101 Introduction to Economics</strong></td>
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<td><strong>ECO.201 Principles of Macro Economics</strong></td>
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**ECO.101 Introduction to Economics**  
3 3  
This is a survey course designed to expose students to economics, providing a broad introduction to the theory, problems and applications found in daily life from the view of households, business and government. The course is designed for the social science major as well as the student who wants a greater understanding of economic basics, including economic fluctuations. Among the topics to be covered are the concepts of incentives, information, supply and demand, trade and globalization, international economics, money and banking.  
Offered: Fall or as Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education — Social Science

**ECO.201 Principles of Macro Economics**  
3 3  
This course is designed to introduce students to the basic economic principles and how to think about the economy in terms of the impact of these principles. Topics include: economic systems, demand and supply theory, government and its role, and fiscal and monetary policies. The course is intended for students who plan to pursue a bachelor's degree as well as those who desire a better understanding of the economy. While there is no prerequisite for this course, completion of ECO 201 is recommended before enrollment.  
Offered: Fall or Spring  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. S3 901*  
General Education — Social Science

**EDU Education**

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<tr>
<td><strong>EDU.120 Introduction to Technology in Education</strong></td>
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**EDU.101 Introduction to Education**  
3 2 4  
This course provides an orientation to the teaching profession. It is designed for those who are considering a career in education. Among the topics studied are Motives for Teaching, Social Problems and Tensions Points in schools, Curriculum, Technology, Legal and Ethical issues, and Philosophical Foundations. In addition, there is a minimum 32 hours required for the field experience component. One hour of the 4 credit hours is for field experience. The Field Experience component includes meeting two times a week as a cohort that benefits from discussion, reading, and exchange of ideas from the field experience.  
Offered: Fall or Spring  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education — Not Applicable Elective Only

**EDU.120 Introduction to Technology in Education**  
3 3  
This course introduces educators to the skills and knowledge necessary to demonstrate their proficiency in current technology standards. The course will focus on current technologies that can be used for instruction and communication in the K-12 classroom. The course outcomes are aligned with the Illinois Professional Teaching Standards, Illinois Technology Standards and the National Council for the Accreditation of Teacher Education. This course is taught using a combination of whole class instruction, individual projects and group work. Class work and projects will require work outside of class time. Experience with Word, Power Point, and Excel.  
Offered: As Needed  
Prerequisites: CIS.112  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education — Not Applicable Elective Only
EDU.201 Educational Psychology 3 3

Educational Psychology examines psychological principles as they apply to education in the areas of learning, a lifespan approach to child and adolescent development, social influences on learning, and the teacher as a classroom leader. Both the individual and the peer group are studied from physical, mental, emotional, and social points of view. There will be opportunities in professional activities. Some examples are Phi Delta Kappa, Council for Exceptional Children, Illinois Science Teachers’ Association and the K-8 Science Update Conference.
Offered: Fall or Spring or Summer
Prerequisites: PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

EDU.220 Foundations of Teaching Reading 3 3

The Foundations of Teaching Reading is an introduction to the theory and practice in teaching reading as well the related language arts areas. Included is information on basic components of reading and language arts instruction. The importance of literacy is emphasized. The Illinois Learning Standards in the areas of reading and language arts will be introduced.
Offered: Fall or Spring or Summer
Prerequisites: PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

ELT Electricity

Courses

ELT.100 Electrical Fundamentals 2 3 3

This course introduces the fundamentals of electrical and electronic circuits. Calculation and measurement of voltage, current, and resistance are emphasized. Through the use of lab activities, various wiring and testing methods utilizing multimeters are investigated.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

ELT.104 Industrial Electrical Control 2 3 3

This course introduces the fundamentals of industrial electrical control. Basic theory including electron flow, Ohm’s Law, series parallel circuit characteristics, and electrical power calculations as applied to industrial control applications is covered. Lab work involves the construction and testing of representative industrial electronic control circuitry.
Offered: Spring
Prerequisites: Take ELT.100;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

ELT.107 Digital Logic & Circuits 2 2 3

This course covers the fundamentals of digital logic. It will also include some of the procedures and tools used for troubleshooting digital circuits. Simple switching circuits will be covered first as a simple but concrete introduction to the concepts of Boolean Algebra. Then modern integrated circuit realizations of digital logic gates will be discussed. Basic principles of analysis and design using these gates will be covered. Coverage will include basic combinational and sequential circuits. Basic troubleshooting techniques using a logic probe will be employed.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Lab Science Not Applicable

ELT.119 Industrial Electronic Control 2 3 3

This course is an in-depth evaluation of industrial electronic control methods and devices. The operating characteristics of various types of solid state controls and sensors, including proximity, photoelectric, thermistors, thermocouples, SCR, triacs, thyristors, timers, counters, and advanced electronic motor controls are studied. The lab work involves the operation and analysis of industrial electronic circuits and devices.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

ELT.120 Electrical/Electronics Troubleshooting 2 3 3

This course covers the essential techniques of troubleshooting industrial electrical and electronic circuits and devices. The lab work includes the use of test equipment, instrumentation, and computer simulation to develop the skills necessary to improve troubleshooting accuracy and cut troubleshooting time.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
Building on fundamentals of basic electrical and electronic circuits, students will study AC and DC fundamentals and safety, power generation, inverters and VFDs, propulsion, dynamic braking, ground fault protection, AC/DC motors, low voltage and high voltage control systems, lockout tagout, and digital and analog controls. Through theory and laboratory activities students will gain a practical understanding of the electrical fundamentals for supplying power to an engine, vehicle, etc. Offered: Fall or Spring
Prerequisites: Take ELT.102
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.200 National Electrical Code**  3  3

Using the National Electrical Code as a reference, students will be trained on how to design and construct electrical systems according to NEL requirements. Residential, industrial, and commercial wiring and power distribution systems will be investigated. Included will be residential/commercial/industrial circuits, lighting requirements, grounding, wiring methods, and hazardous locations. Offered: Fall
Prerequisites: Take ELT.110;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.207 Electrohydra Process Control**  2  3  3

This is a course designed to provide the student with a solid background in fluid power control principles and theory, as well as modern techniques for interfacing industrial muscle (hydraulic, pneumatic, vacuum operated devices) with the ubiquitous industrial brain (electronic-microprocessor)generation of controllers. There will be discussions of electric motor drives, solenoid operated devices, pressure switches/transducers, relays, limit switches, programmable controls, servo systems, analog and digital control, open and closed loop control, feedback, symbology, instrumentation, etc. There will be emphasis on demonstration of relevant hardware, as well as class participation in design and troubleshooting of industrial types of circuits. Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.208 Programmable Controllers**  2  2  3

This course will introduce the student to the fundamental concepts of programmable controllers. Through lecture and lab exercises, the student will be exposed to the hardware, troubleshooting, and programming of controllers. Relevant examples of programmable controller types will be covered. Offered: Spring
Prerequisites: Take ELT.102
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.209 AC/DC Drives and Servos**  2  2  3

This course investigates modern trends in industrial motor controls. Students will be exposed to the advantages and disadvantages of AC and DC solutions. Discussions will include soft start and servo control. Much emphasis will be on AC Variable Frequency Drives. Offered: Spring
Prerequisites: Take ELT.104
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.212 Industrial Electricity**  2  3  3

This course provides a basic overview of various industrial topics such as distribution, wiring methods, and enclosures. Offered: Spring
Prerequisites: Take ELT.119
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.213 Process Control & Instrumentation**  2  3  3

This course covers the field of industrial measurement and control. Data acquisition methods, including the sensing, measuring, and transmission of industrial process variables, are introduced. The principles of automatic process control, measurement, programmable controller and distributed control are studied. Offered: Spring
Prerequisites: Take ELT.119
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**ELT.214 Advanced Program Controllers**  2  2  3

This course will extend student knowledge of programmable controllers to include proprietary and open networks, automation equipment interfacing, and operator interfaces. Through the use of lab activities, various network protocols, remote I/O and touch screens will be interfaced and programmed. Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable
ELT.215 Design of Industrial Control Systems 2 2 3

This is an integration course utilizing knowledge gained in previous courses and applied to the design of a typical industrial control system. Computer-aided design software is introduced and utilized to create drawings required for the construction of a control panel. Lab activities will include generation of control system CAD drawings and the construction of a control panel which includes both electrical and electrohydraulic components. The use of vendor-supplied product configuration software and CAD blocks will be emphasized.

Offered: Fall
Prerequisites: Take ELT.104 and ELT.208
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

ELT.216 Data Acquisition Systems Program & Apps 2 2 3

This course will emphasize the use and application of Data Acquisition Systems and associated programming software. Instrumentation circuitry and sensors will be interfaced to an industrial data acquisition system.

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

ELT.219 Industrial Automation Applications 1 4 3

This course will explore the integration of modern industrial control systems and instrumentation to automated industrial equipment. Prototype machinery will be constructed in the laboratory and programmed to perform a selected task.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS Emergency Medical Services

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EMS.101 Emergency Medical Technician-B 7.5 1 8

This is the first course in Emergency Medical Care as part of the Emergency Medical System (EMS) structure. The course covers basic emergency care and includes care, handling, and extrication of the critically ill and injured person. Emphasis is on development of student skills in recognition of illnesses and injuries and proper procedures of emergency care. The student will also develop skills in the area of communication, recordkeeping, interpersonal relationships, and transportation methods. This course includes 116 hours of classroom instruction plus 10 hours of in-hospital experience.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.110 Fundamentals of Paramedic 2 2 2

This course, in conjunction with Paramedic Practice 1, is designed to introduce the student to the fundamentals of paramedic services including a historical perspective of the EMS system in comparison to the current operations, the roles and responsibilities, safety and well being of the paramedic, legal issues and regulatory issues, communication and documentation, and basic patient assessment skills. This course closely integrates theory with practice, thus providing the foundational base from which the learner may develop further skills, knowledge and judgment of the paramedic.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.112 Paramedic 1 2 2

The purpose of this course is to familiarize paramedic students with the basic concepts and principles of pharmacology as well as provide a baseline for medication administration. Sources of drugs, reference materials for drugs, and legal considerations will be discussed as well as classification of drugs and how each affects the respective body system.

Offered: Fall
Prerequisites: Take EMS.101 with grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
EMS.110 Paramedic Practice 1  6  2  
Paramedic Practice 1 is designed to provide the student with the opportunity to develop skills and apply didactic information from Fundamentals of Paramedic (EMS.110) and Paramedic I (EMS.112) to the clinical and field settings respectively. Paramedic Practice 1 provides the student with the opportunity to become familiar with equipment and procedures used in the profession as well develop assessment skills. The course culminates in applying skills and knowledge learned to given case studies.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.120 Paramedic II  2  2
The student will begin studying the different medical situations for which EMS is summoned. Coupled with EMS.125, Paramedic Practice 2, a high level of understanding for the medical situations involving cardiology will be gained through discussion and learning activities and case studies. A brief review of important anatomy and physiology as it applies to the situation(s) in question will be included as well as relevant pathophysiology providing the student with the needed information to begin pre-hospital assessment and treatment for each type of medical situation(s) discussed.
Offered: Fall
Prerequisites: Take EMS.110 and EMS.115 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.125 Paramedic Practice 2  2  6  2
Paramedic Practice 2 is designed to provide the student with the opportunity to develop cumulative skills and apply didactic information from Paramedic I (EMS.112), and Paramedic II (EMS.112) to the clinical and field settings respectively. The course culminates in applying skills and knowledge learned to given case studies. Through simulations and case studies, this course will allow students to learn how to safely and precisely administer medications through a variety of routes. The student will also learn proper disposal of contaminated items and sharps. Further experience will be gained through clinical experience at area medical institutions through observation or hands-on experiences.
Offered: Fall
Prerequisites: Take EMS.110 and EMS.115 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.130 Paramedic III  2  2
This course will build on information learned in EMS.120, Paramedic II and EMS.125, Paramedic Practice 2 as the student will continue studying the different situations for which EMS is summoned. Coupled with EMS.135, Paramedic Practice 3, a high level of understanding for the situations involving systems such as: nervous, endocrine, lymphatic, immune, digestive, renal gastrointestinal, musculoskeletal, and reproductive including disorders of those systems. The student will also learn about infectious disease, psychiatric and behavioral disorders, gynecology, obstetrics, and neonatology. Further experience will be gained through clinical experience at area medical institutions through observation or hands-on experiences.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.135 Paramedic Practice 3  6  2
This course will cumulatively build on information learned in EMS.112 Paramedic I, EMS.120, Paramedic II and EMS.125, Paramedic Practice 2 along with EMS.130, Medical Emergencies 2, as the student will continue studying the different medical emergencies for which EMS is summoned. Through simulations and case studies, this course will allow students to learn how to provide care for medical emergencies related to urology and nephrology, toxicology and substance abuse, environmental emergencies, infectious disease, psychiatric and behavioral disorders, gynecology, obstetrics, and neonatology. Further experience will be gained through clinical experience at area medical institutions through observation or hands-on experiences.
Offered: Spring
Prerequisites: Take EMS.110 and EMS.115 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

EMS.200 Paramedic IV  2  2
The student will study the different trauma emergencies for which EMS is summoned for which care is provided by pre-hospital personnel to help reduce morbidity and mortality. Coupled with EMS.205, Paramedic Practice 4, a high level of understanding for the pediatric and geriatric patient(s) and traumatic emergencies based on the body systems involved will be gained through discussion and learning activities and case studies.
Offered: Spring
Prerequisites: Take EMS.110 and EMS.115 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
**EMS.205 Paramedic Practice 4**

6 2

Through simulations and case studies, this course will allow students to learn how to provide care for pediatric and geriatric patient(s) and trauma emergencies for which care is provided by pre-hospital personnel to help reduce morbidity and mortality. Further experience will be gained through clinical experience at area medical institutions through observation or hands-on experiences.

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**EMS.210 Paramedic V**

2 2

This course prepares the graduating paramedic student for more complicated treatment situations including the challenged patient and acute interventions for the chronic-care patient. Students will learn about operations of an ambulance as well as medical incident management, rescue awareness and operations, hazardous materials incidents, crime scene awareness and terrorist acts. Preparation for entry-level paramedic practice will be supported with discussion of contemporary paramedic practice and current Illinois laws related to the paramedic profession. Offered: Summer
Prerequisites: Take EMS.200 and EMS.205 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**EMS.215 Paramedic Practice 5**

18 6

The purpose of this course is to integrate, cumulatively all skills and knowledge learned in the classroom into the clinical setting. Students will experience rotations in various fields of medicine including, but not limited to various hospital departments, the emergency room, surgical suites, and ambulance. Students will observe and actively participate in each of the settings to synthesize knowledge and skills to the field of paramedic practice.
Offered: Summer
Prerequisites: Take EMS.200 and EMS.205 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**ENG English**

**ENG.094 English Fundamentals 1**

3 3

English Fundamentals 1 is the first course in a two-part preparatory sequence that precedes transfer level composition courses. This course is designed to encourage the students to find his or her voice and to enhance the development of basic writing strategies. It provides a solid foundation in grammar, mechanics, and organizational skills. The student will be introduced to strategies for approaching the stages of the writing process and applying these to paragraph modes. Placement in English 094 is based upon the Writing Skills Section of the COMPASS test. Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable

**ENG.098 English Fundamentals 2**

3 3

English Fundamentals 2 is the second course in a two-part preparatory sequence that precedes transfer level composition courses. This course is designed to encourage the student to find his or her voice and to enhance the development of basic writing strategies. It provides a solid foundation in grammar, mechanics, and organizational skills. The course requires substantial practice in writing coherent ways that demonstrate critical thinking skills. Placement in English 098 is based upon the writing Skills Section of the COMPASS test. This course is also designed for students who feel a need for a refresher course in written expression or who did not complete one or more years of English with grades of C or better before leaving high school.
Offered: Fall or Spring or Summer
Prerequisites: COMPASS Writing score of 31-69
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable

**ENG.101 Freshman Composition 1**

3 3

This course is the first in a sequence of two freshman composition and rhetoric courses. It is designed for individuals planning to pursue a bachelor's degree as well as those who wish to develop proficiency in writing. Emphasis is on critical reading, organization, logical thought, paragraphing, sentence structure, grammar and punctuation. Also studied will be argumentation and inductive/deductive reasoning.
Offered: Fall or Spring or Summer
Prerequisites: Either placement according to the COMPASS score, or completion of ENG.098 with a C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. C1 900
General Education -- Communications
ENG.102 Freshman Composition 2  
This course is second in a sequence of two freshman composition and rhetoric courses. Emphasis is on reading and writing about various types of prose, especially short fiction and the novel. A research paper that demonstrates analysis of the novel is the primary writing activity. Offered: Fall or Spring or Summer  
Prerequisites: A grade of C or better in ENG.101 or the equivalent and (for students who took ENG.101 at Sandburg after fall 1994) a passing mark on the Comp 1 Exit Exam. At least a C must be earned to count this course toward an AA, AS, AFA, or AAS  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. C1 901  
General Education -- Communications

ENG.120 Report Writing  
This course is designed to teach the basic concepts of report writing for the business and industrial environment. Students will be taught techniques for gathering information, audience analysis, expository writing techniques, information organizational procedures, and methods of achieving a clear style of writing. Students will study routine and non-routine reports, business research reports, and business plans, policies and procedures.  
Offered: Spring  
Prerequisites: COMPASS Writing score of 70 or ENG.098 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

ENG.130 Introduction to Journalism  
This course introduces the student to the functions of mass media with emphasis on the recognition of what makes news; the obtaining of facts through interview, investigation and research; and the writing of types of stories such as feature, news story, and editorial in an acceptable journalistic style. Also, the student has an opportunity to develop a working knowledge of the mechanics of producing a newspaper, e.g., paper layout, advertising, etc. Underlying the course is the ideal of the dedication of the news media and the responsibility of the journalist to the public interest. Students who have completed or are currently enrolled in this course are eligible for enrollment in ENG 140.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

ENG.140 College Newspaper  
This course provides training in news reporting and writing, feature writing, make-up, and editorial work. Also, the development of policy for the publication and the implementation of that policy are included. Course work is directly concerned with publication of the College newspaper. This course allows a student who works on the College newspaper staff an opportunity to receive credit for one semester of such participation, up to a maximum of four semester hours.  
Offered: Fall or Spring  
Prerequisites: ENG.130 or concurrent enrollment  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AGS and Certificates where applicable.  
General Education -- Not Applicable Elective Only

ENG.141 College Literary Magazine  
This course provides experience in writing, editing, layout, coordinating, resource management, printing and publication of Carl Sandburg College's literary magazine, Phizzogs. The course may be repeated once for credit.  
Offered: Spring  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

ENG.151 Introduction to Film Art  
This course examines the film as an art form. It includes historical development and trends; aesthetic importance; social impact; technical aspects; production methods; and screening, discussion, and critical evaluation of selected films.  
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

ENG.160 Introduction to Fiction  
This course is a survey of the short story and the novelette. Emphasis is placed on the analysis of the elements of fiction, such as characterization, conflict, symbol and plot. How to write about fiction will also be studied.  
Offered: Fall  
Prerequisites: ENG.101  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. H3 901  
General Education -- Humanities Human Relations
ENG.170 Introduction to Drama  
A survey of drama as literature, this course explores various periods and traditions throughout theatre history so that students become familiar with the major styles, techniques, and conventions that characterize dramatic literature. Through critical analysis and discussions, students learn the historical and cultural contexts that shape and influence the drama. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 902 
General Education -- Humanities Human Relations

ENG.180 Introduction to Poetry  
3  3
Fostering an appreciation of poetry through analysis is the aim of this course. Samples of many periods, including contemporary works, will be studied, as well as the elements of poetry: diction, image, theme, symbol, rhythm, and meter. Skills of reading poetry will also be emphasized. Thematic concerns of race, gender, and ethnicity are, of course, included in the written and oral analysis of these poems. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 903 
General Education -- Humanities Human Relations

ENG.211 Creative Writing 1  
3  3
The student's writings are appraised by the tutorial method and group critique. The concept of audience and the development of individual style, approach and vision are stressed. In addition to writing assignments, readings in contemporary fiction, poetry, drama and discursive writing are recommended here appropriate. While there is no formal prerequisite, the ability to handle standard English usage is essential. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

ENG.212 Creative Writing 2  
3  3
This is a second course in creative writing. Again, the student's writing are appraised by the tutorial method and group critique. The concept of audience and the development of individual style, approach and vision are emphasized further. Readings which are pertinent to writing assignments are recommended as appropriate. 
Offered: Fall or Spring 
Prerequisites: ENG.211 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only

ENG.221 American Literature 1  
3  3
This course surveys the major literary works by American authors from Colonial times to and including the Transcendentalists. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 914 
General Education -- Humanities Human Relations

ENG.222 American Literature 2  
3  3
This course surveys major literary works by American authors from the emergence of modern American literature, including the Realists and the Regionalists, to the present. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 915 
General Education -- Humanities Human Relations

ENG.231 British Literature 1  
3  3
This course is a survey of the great literary works by British authors from the beginning to the 19th century. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 912 
General Education -- Humanities

ENG.232 British Literature 2  
3  3
This course is a survey of the great literary works by British authors from the 19th century to the present. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 913 
General Education -- Humanities

ENG.240 Women's Literature  
3  3
This course studies selected literature written by women from various historical and literary periods and presented in a variety of genres -- poetry, drama, short story, novel and letters -- with attention to the historical and cultural contexts of those writings. The emphasis is on interpretive and critical skills. 
Offered: As Needed 
Prerequisites: ENG.101 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. H3 911D 
General Education -- Humanities
**ENG.250 African American Literature**  
3 3

This course is an examination of the literature of African Americans with emphasis on interpretative and critical skills of all genres of several periods. Study of the oral tradition as a distinctive literary mode of expression is also included.
Offered: As Needed  
Prerequisites: ENG.101  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Human Relations

**ESC Earth Science**

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</table>

**ESC.100 Introduction to Earth Science**  
3 2 4

This course introduces the student to the study of the forces shaping Earth's surface with an emphasis on geological formation processes and the human impact on the environment. Topics will include the study of rocks and minerals, plate tectonics, hydrology, resource conservation, pollution, climatology, and volcanic processes.
Offered: Spring or As Needed  
Prerequisites: A COMPASS Reading score of 83 or above, or RDG.096 with a grade of C or better or ACT Reading score of 20 or higher  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Science Lab Science

**FRE French**

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<th>Courses</th>
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**FRE.101 Elementary French 1**  
4 4

This is the second sequence of two semesters providing a first year college study of French. It will provide the fundamentals for transfer credit or a review of basic skills.
Offered: As Needed  
Prerequisites: FRE.101  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**GCP Graphic Communications**

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<th>Courses</th>
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<td>Disc</td>
<td>Lab</td>
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</table>

**GCP.143 Introduction to Web Design**  
2 2 3

Students will create several web pages increasing in complexity. This course teaches best practices for coding HTML and CSS, typography, graphics, animation, usability and accessibility. Students will be introduced to uploading files, server space and browser compatibility. Web page layout software is introduced. Exploration and analysis of existing sites on the web will also be a focus and source of information.
Offered: Fall  
Prerequisites: A COMPASS Reading score of 83 or higher, or RDG.096 with a grade of C or better, or ACT Reading score of 20 or higher  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**GEO Geography**

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<td>Disc</td>
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**GEO.100 Human Geography**  
3 3

The purpose of this course is to introduce students to the study of geography as a social science by emphasizing the relevance of the basic concepts in geography to cultural and human concerns. A primary learning objective is the understanding of the impact on the natural environment from natural resources, economic activity, and cultural characteristics.
Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S4 900  
General Education -- Social Science Human Relations
**GEO.110 World Regional Geography** 3 3

A survey of the world’s regions, emphasizing the spatial arrangements of resources, population, institutions, economic activities, and cultural landscapes, and their significance for distinctive regional problems.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
IAI Course No. S4 901
General Education -- Social Science Human Relations

**GER German**

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<td>GER.101 Elementary German 1</td>
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</table>

This is the first semester of two semesters providing a first year of college study of German. The course will offer speaking, reading, writing, listening comprehension and essentials of grammar, as well as a cultural background of the three German-speaking countries. It will provide the fundamentals for transfer credit or a review of basic language skills.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

**Courses**

**HIM.100 Introduction to Health Information Mgmt** 3 3

This course introduces students to numerous aspects of health information management. Emphasis is placed on health care delivery systems, health information management professions, and health care settings. Patient records, filing systems, record storage, circulation and retention, indexes, registers, health data collection, and legal issues are also covered as they relate to different types of health care facilities and practices.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS AAS and Certificates where applicable.
General Education -- Not Applicable

**HIM.205 Health Information Mgmt Tech Practicum** 15 3

The purpose of this course is to integrate classroom theory with practical experience. The student will be placed in a medical agency where the skills and knowledge of a health information management technician will be applied. The practicum will be supervised by a College faculty member and a job-site supervisor. Consent of instructor is required to enroll in this course.
Offered: Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS, AAS and Certificates where applicable.
General Education -- Not Applicable

**HIS History**

<table>
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<td>HIS.105 American History to 1877</td>
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</table>

This course presents a survey of United States history from the European discovery to the close of the Reconstruction Era. It emphasizes the economic, cultural, and political factors which led to the development of one nation from a diversity of peoples. Topics studied are the religious and social structure of colonial America, the factors leading to the break with England, the democratization of America, Manifest Destiny, sectional and social tensions leading to the Civil War, Reconstruction, and the beginnings of industrialization. The course is intended for individuals who plan to pursue a bachelor’s degree and those who desire to strengthen their understanding of the development of our national institutions.
Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
IAI Course No. S2 900
General Education -- Social Science
This course is a survey of major economic, political, and social trends from the Reconstruction Era to the present. Among the topics examined are the growth of America as a major industrial and military power, the problems of minorities, the Cold War, and the post-Cold War era. Offered: Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. S2 901

General Education -- Social Science

HIS.126 Western Civilization 2

This course surveys the rise of the modern European state system from the era of religious wars to the present. Major social, economic, artistic, and political trends are traced to include the development of ideologies such as fascism and Marxism. Africa and Asia are covered in terms of their relationship to the West. Offered: Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. S2 903

General Education -- Social Science Human Relations

HIS.217 History of New York

This course is designed to introduce students to the history of New York City. The course will include emphasis on the unique social and cultural characteristics; political institutions; technological, environmental and geographic elements that make New York City a unique environment. The instructional approach will be that of a seminar and the course will include a one-week field research experience in New York City visiting various historical locations examined in the course study. The course is not to be taken more than once. Offered: Summer Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable. General Education -- Not Applicable Elective Only

HIS.260 US History-The Sixties

This course examines political, social and cultural changes in the United States during the 1960's. It begins with a study of major events in the 1950's that set the tone for the social movements that developed during the 1960's. Special attention and focus will be given to the origins and evolution of various social movements and the interrelationships among these movements. The course also examines the impact the 1960's has had on individuals and future social movements, including how current political discourse has been influenced by the decade. Offered: Fall or Spring Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

HIS.285 History of Africa: 1500 to Present

This course is designed to survey the history of the African continent since 1500, giving specific attention to its people, cultures, social structures, and political interactions with the rest of the world. Students will gain insight into the roles that Africa, specifically Africans, have played in the development of modern societies. Offered: As Needed Prerequisites: HIS.105, HIS.106, HIS.125, and HIS.126 Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Social Science Human Relations

HIS.294 American Military History

This course is a survey of American military history from the colonial period through Vietnam. The course examines the evolution of Americas military forces to meet changing defense requirements. Selected campaigns from Americas wars are analyzed in light of the principles of war to determine how these principles were followed or violated. The impact of civilian attitudes on the conduct of operations is also discussed. Offered: As Needed Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

HTH Health

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<td>HIS.126</td>
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<td>HIS.294</td>
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</table>
Courses

**HTH.120 Health**

This course focuses on the dynamics and relationships of family, community, and personal health issues. The course content includes units on mental health, sexuality, disease, death, and other issues of current concern. The Internet is used extensively as a supplement and assignments using the Internet will be required.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**HTH.130 First Aid**

In this course students will be learning how to make appropriate decisions regarding first aid care and how to respond correctly to emergencies. Students will develop first aid skills via practice on mannequins and may be eligible for CPR and/or First Aid certification by the American Red Cross. Other medical emergency situations studied include water safety, substance abuse, poisoning, bleeding, shock, and injuries of various types. Also emphasized is the importance of a person’s maintenance of a safe and healthy lifestyle.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**HTH.140 Wellness**

Students will learn the importance of life-long physical fitness and the desirability of adhering to positive lifestyle behaviors. The physical, emotional, vocational, intellectual, and spiritual aspects of wellness will be explored. Internet assignments will be required. Students will be expected to exercise during each week at a CSC facility. Concurrent enrollment in PED 140, PED 141, PED 142, PED 143 or PED 145 is prohibited.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**HTH.150 Drug Use and Abuse**

This course is designed to introduce the many-sided problems of drugs in our society including the psychological, sociological, and physiological effects of drug use and abuse. This course encourages students to explore their own decisions on use or abstinence and teaches assertiveness skills to protect and defend this choice with others. Personal motivations and behaviors are identified. The intent of the course is to provide facts, attitudes, and opinions necessary to understand what drugs do, how they do it, who uses them, and why. Also, modes of treatment as well as legal and ethical issues in drug abuse are discussed. Students will also learn how to access online Web resources.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**HYD Hydraulics**

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<td>HYD.101 Hydraulics and Pneumatics</td>
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</table>

This course is designed for persons who desire to become employed, or upgrade their employment, in any area which demands a basic knowledge about hydraulics and pneumatics. It provides an opportunity to learn the fundamental concepts regarding the transmission of power through liquids and gases. Also, the structure and function of the various pieces of equipment which are used to contain or transfer those liquids or gases are studied, such as pumps, valves, hoses, etc.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**INS International Studies**

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<th>Courses</th>
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<tr>
<td>INS.100 Introduction to International Studies</td>
<td>2</td>
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</table>

This course will enrich students with cultural knowledge and will enhance their abilities to see the world from a global perspective. It will introduce students to the culture, history, geography, politics and common linguistic phrases of the countries for which the College offers linguistic study and/or study abroad opportunities.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable
### Courses

#### KIN.105 Aerobics

Any student may enroll in this physical education activity course although it is recommended that anyone over 35 years of age obtain a physical examination from a physician first. Emphasis is on cardiovascular endurance and the development of muscle tone and flexibility. The method of instruction will include step aerobic routines. This course may be repeated by a student for a maximum of two semester hours of credit. The length of each course is eight weeks.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

#### KIN.106 Muscle Conditioning

This course may be repeated by a student for a maximum of two semester hours of credit. This activity is designed to strengthen, tone, and stretch the major muscle groups while improving flexibility and range of motion. Exercises utilizing light weights and resistance bands will be performed to music. The length of the course is eight weeks. It is recommended that anyone over 35 years of age obtain a physical examination from a physician.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

#### KIN.107 Zumba 1

Zumba is a high-energy program with motivational music and dance moves from Salsa, Merengue, other Latin steps and free-form styles. It integrates some of the basic principles of aerobic, resistance, and interval training to tone and sculpt the body, burn fat, maximize caloric output, and benefit heart and mind. Students need to wear low tread shoes or dance shoes.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

#### KIN.108 Pilates 1

Students participate in a series of stretching and strengthening exercises based on the Joseph Pilates (pil-LAH-teez) method of body conditioning. Pilates is a method of body conditioning that strengthens and tones muscles, improves posture, provides flexibility and balance, unites body and mind, and creates a more streamlined shape. A variety of equipment may be used including small ball, big ball, body bar, bands, and weights. This is a mat course, machines are not used.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

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#### ISP Independent Studies

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General Education -- Non Course

#### KIN Kinesiology & Exercise

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<td>KIN.105 Aerobics</td>
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<td>1</td>
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</table>
**KIN.110 Badminton**  1  0.5

In this course the student will learn the basic skills and strategies involved in the sport of badminton. Actual participation in badminton matches will be a major emphasis. Students will study the rules, scoring procedures, and the vocabulary of the sport.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.115 Introduction to Leisure Services**

This course examines the purpose and function of leisure services delivered by governmental, non-profit, and private agencies. This introductory course is a requirement for the associate's degree for transfer to the Recreation, Park and Tourism program at Western Illinois University. Assignments, projects and learning experiences are designed to give students an in-depth and comprehensive understanding of leisure; the infrastructures that have developed to provide leisure opportunities for the widest possible range of people; and expose students to the variety of careers in leisure services.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Elective Only

**KIN.120 Bowling**  2  1

In this course a student will learn basic skills and the strategies involved in the sport of bowling. Actual participation in the sport will be a major emphasis. The student will study the rules, scoring procedures, and the vocabulary of the sport. No previous bowling experience is assumed.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.130 Personal Training I: Exercise Physiology**  2  2  3

This course provides an overview of seven physiological systems of the human body and the impact of exercise on these systems. It also provides standards for the development of exercise and fitness programs in relationship to the physiological adaptations of the human body, the principles and concepts of human movement, nutritional guidelines for optimum performance, and consideration of physical (age, gender, health, size) characteristics of individuals and environmental conditions. Designed for students who plan to take the certification test from the American Council on Exercise to be a certified personal fitness trainer.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Elective Only Non Course

**KIN.131 Personal Training II: Personal Fitness**  1  2  2

Provides the academic and practical experience that will enable students to design personalized fitness training solutions for clients based on physical, health, and behavioral assessments and employing the American Council for Exercise (ACE) Integrated Fitness Model Components and Phases. Designed for students who plan to take the certification test from the American Council on Exercise (ACE) to be a certified personal fitness trainer.

Offered: Fall or Spring

Prerequisites: Take KIN.130 with a minimum grade of C.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Elective Only Non Course

**KIN.132 Personal Training III: Fitness Assessments**

Provides an overview of the five functional assessments as well as the physiological assessments that are necessary for the development of personalized fitness programming for clients under the American Council on Exercise (ACE) Integrated Fitness Model. Provides information on the legal and business principles for practicing personal trainers. Designed for students who plan to take the certification test from the American Council on Exercise to be a certified personal fitness trainer.

Offered: Fall or Spring

Prerequisites: Take KIN.131 with a minimum grade C.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Elective Only Non Course

**KIN.133 Personal Training IV: Practicum**  2  1

The objective of the practicum is to integrate classroom theory and skill practice in a fitness center environment where the student can practice under the supervision of a personal fitness trainer. The student will be supervised in conducting assessments and developing and initiating fitness programs employing the American Council on Exercise (ACE) Integrated Fitness Model. This is the final course for students who plan to take the certification test from the American Council on Exercise (ACE) to be a certified personal fitness trainer.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Elective Only Non Course
**KIN.140 Physical Fitness 1**

This physical education activity course is open to all students. It is designed as an open lab to accommodate each student's needs. Emphasis is placed in three areas of physical fitness: strength, flexibility, and cardiovascular endurance. Universal equipment and cardiovascular equipment will be used to develop more effectively one's level of physical fitness. This course may be repeated for credit one time. Note: In any one academic term, a student may not enroll in more than one KIN course which requires the use of the Fitness Center.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.141 Physical Fitness 2**

This physical education activity course parallels PED 140 and is open to all students. Emphasis is placed in three areas of physical fitness: strength, flexibility, and cardiovascular endurance. Universal equipment and cardiovascular equipment will be used to develop more effectively one's level of physical fitness. This course may be repeated for credit one time. Note: In any one academic term, a student may not enroll in more than one KIN course which requires the use of the Fitness Center.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.142 Physical Fitness 3**

This physical education activity course parallels PED 140 and is open to all students. Emphasis is placed in three areas of physical fitness: strength, flexibility, and cardiovascular endurance. Universal equipment and cardiovascular equipment will be used to develop more effectively one's level of physical fitness. This course may be repeated for credit one time. Note: In any one academic term, a student may not enroll in more than one KIN course which requires the use of the Fitness Center.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.143 Physical Fitness 4**

This physical education activity course parallels PED 140 and is open to all students. Emphasis is placed in three areas of physical fitness: strength, flexibility, and cardiovascular endurance. Universal equipment and cardiovascular equipment will be used to develop more effectively one's level of physical fitness. This course may be repeated for credit one time. Note: In any one academic term, a student may not enroll in more than one KIN course which requires the use of the Fitness Center.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.145 Physical Fitness 5**

This physical education activity course parallels PED 140 and is open to all students. Emphasis is placed in three areas of physical fitness: strength, flexibility, and cardiovascular endurance. Universal equipment and cardiovascular equipment will be used to develop more effectively one's level of physical fitness. This course may be repeated for credit one time. Note: In any one academic term, a student may not enroll in more than one KIN course which requires the use of the Fitness Center.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.155 Beginning Swimming**

Many physical education activity courses are available and open to all students. However, due to limitations of space and the fact that the offering of some courses is rare, a detailed course description is not presented for this class.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.156 Intermediate Swimming**

Many physical education activity courses are available and open to all students. However, due to limitations of space and the fact that the offering of some courses is rare, a detailed course description is not presented for this class.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.157 Advanced Swimming**

Many physical education activity courses are available and open to all students. However, due to limitations of space and the fact that the offering of some courses is rare, a detailed course description is not presented for this class.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
<table>
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<td>KIN.162</td>
<td>Tennis 2</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>KIN.171</td>
<td>Volleyball 1</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>KIN.172</td>
<td>Volleyball 2</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>KIN.180</td>
<td>Weight Training</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>KIN.193</td>
<td>Golf</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>KIN.200</td>
<td>Foundations of Physical Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>KIN.202</td>
<td>Sports in Society</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Many physical education activity courses are available and open to all students. However, due to limitations of space and the fact that the offering of some courses is rare, a detailed course description is not presented for this class.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

The purpose of this course is to teach the basic knowledge and concepts in the use of resistive exercises designed to increase muscular strength and endurance. Students will participate in an individual weight-training program.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

This course is a study of the development of physical education programs in K-12 schools. The student will also learn about the possibilities of professional opportunities in the area of physical education and the role of sports in non-school (recreational) settings. Internet assignments will be required.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

In this course students will study current sports-related controversies and issues from a global perspective. The role of various sports and their historical influence on American society will be emphasized. Included will be the study of the effects of related social factors such as gender, race, sexuality, nationalism, and media on the evolution of the sports culture.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
This course is designed to teach the student who wants to coach volleyball the procedures that will effectively develop the skills of volleyball for athletes. The specific areas covered include: assessing current performances, alternate teaching methods, motivating the athlete, guidelines for conducting a competitive program, and basic training and nutrition.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.210 Coach Football Tech & Tact Ski**

In this course the student will learn how to teach the skills, strategies, techniques, and tactics of football. Topics studied include the games approach to coaching as an alternative to drills-based coaching. Students will develop a season plan and a series of practice plans. The ability to successfully coach during games will be emphasized. This course is suitable for persons who are interested in coaching at the club, high school, or college levels. Students will have the opportunity to earn coaching certification through the American Sport Education Program (ASEP).

General Education -- Not Applicable Elective Only Non Course

**KIN.215 Coaching Baseball Tech and Tac**

In this course the student will learn how to teach the skills, strategies, techniques, and tactics of baseball. Topics studied include the games approach to coaching as an alternative to drills-based coaching. Students will develop a season plan and a series of practice plans. The ability to successfully coach during games will be emphasized. This course is suitable for persons who are interested in coaching at the club, high school, or college levels. Students will have the opportunity to earn coaching certification through the American Sport Education Program (ASEP).

General Education -- Not Applicable Elective Only Non Course

**KIN.220 Coaching Basketball**

This course presents the theory and techniques of coaching basketball. It is open to interested students regardless of their vocational plans. The student is provided an opportunity to develop a personal approach to coaching and teaching techniques. Topics include offensive/defensive strategies, teaching specific skills, motivational techniques, and general management skills needed by basketball coaches.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.221 Basketball 1**

In this course the student will learn the basic skills and strategies involved in the sport of basketball. Actual participation in basketball games will be a major emphasis. The student will learn the procedures of scoring, the rules, and the vocabulary of the sport.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.222 Basketball 2**

General Education -- Not Applicable Elective Only Non Course

**KIN.230 Sports Officiating**

This course is designed to assist students in interpreting the rules and regulations of the National Federation of State High School Athletic Association. The opportunity to learn and practice proper officiating mechanics is also provided through actual participation. Sports especially emphasized in the course are basketball and volleyball.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.241 Softball 1**

In this course the student will learn the basic skills and strategies involved in the sport of softball. Actual participation in softball games will be a major emphasis. The student will learn the procedures of scoring, the rules, and the vocabulary of the sport.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**KIN.242 Softball 2**

General Education -- Not Applicable Elective Only Non Course
**KIN.260 Coaching Principles & Sports First Aid** 3 3

Students enrolled in this course will study the general principles underlying the profession of coaching athletic teams and individual athletes. This course will address the essential elements of successful coaching from proven coaching techniques to effective risk management. Students will also be taught how to be safe, capable, and effective as first responders to injured athletes. Students will have the opportunity to earn certification through the American Sport Education Program. Internet assignments may be required.
Offered: Fall or Spring or Summer
Prerequisites: KIN.200
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

**KIN.280 Athletic Injuries** 3 3

This is an introductory course in the study of sports medicine. Included are topics which address the treatment and rehabilitation of athletic injuries, human and environmental factors in sport injury, accident prevention and injury control, and safety factors in sport activities. Students will also study the operation, maintenance, and administration of a typical athletic training room.
Offered: Spring or as Needed
Prerequisites: KIN.200, KIN.260 and HTH.130; BIO.111 is a recommended preparatory course
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

**MAT Mathematics**

<table>
<thead>
<tr>
<th>Courses</th>
<th>Hr/Wk</th>
<th>Hr/Wk</th>
<th>Sem</th>
<th>Lect/</th>
<th>Clin</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAT.090 Arithmetic Fundamentals</strong></td>
<td>3</td>
<td>1-3</td>
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</tbody>
</table>

This is a basic foundation course in computational mathematics offered for students whose current skills in elementary arithmetic need improvement. The specific topics included are fractions and decimals; percentages, proportions, and ratios; metric and English measurements; and the fundamentals of integer arithmetic and elementary algebraic operations. This course serves as a basis for students who plan to study business mathematics, algebra, or technical mathematics. This course may be repeated three times (four total) by students needing additional help. Both self-paced and lecture sections are available. This course is recommended for students who score 46 or below on the Numerical Skills section of the COMPASS test.
Offered: Fall or Spring or Summer
Prerequisites: High school graduation or GED equivalency
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable

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<tr>
<th>Courses</th>
<th>Hr/Wk</th>
<th>Hr/Wk</th>
<th>Sem</th>
<th>Lect/</th>
<th>Clin</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAT.093 Fundamentals of Algebra</strong></td>
<td>3</td>
<td>1-3</td>
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This course is designed for students who have not had algebra in high school or who need a review of basic algebraic concepts. Topics covered in this course include properties of integers, real, and rational numbers; polynomials; and rational and quadratic expressions. Techniques for solving problems involving these types of expressions are also covered. This course may be repeated three times (four total) by students needing additional help. This course is recommended for students who score 43-55 on the Numerical Skills section of the COMPASS test.
Offered: Fall or Spring or Summer
Prerequisites: COMPASS Pre-algebra score of 47-99, or COMPASS Algebra score of 26-45, or completion of MAT.090 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable Elective Only

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<tr>
<th>Courses</th>
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<th>Hr/Wk</th>
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<th>Lect/</th>
<th>Clin</th>
<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAT.095 Geometry and Trigonometry Review</strong></td>
<td>3</td>
<td>1-3</td>
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</tbody>
</table>

This course is intended for persons who did not take geometry or trigonometry in high school as well as those who did take those subjects but now need a review. While it may not be a required prerequisite for other courses, it is very helpful for students planning to take the technical math series. The topics covered include angles, triangles and quadrilaterals; basic geometric measures and properties; the circle and solid geometric figures; the number and changing between degrees and radians; tangent of an angle; the sine and cosine of an angle; the Pythagorean theorem; and solving application problems involving right triangles. This course may be repeated three times (four total) by students needing additional help.
Offered: Fall or Spring or Summer
Prerequisites: MAT.093 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable Elective Only

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<tr>
<th>Courses</th>
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<th>Sem</th>
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<th>Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MAT.096 Arithmetic Fundamentals</strong></td>
<td>1</td>
<td>1</td>
<td>1-3</td>
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</tr>
</tbody>
</table>

This is a basic foundation course in computational mathematics offered for students whose current skills in elementary arithmetic need improvement. The specific topics included are fractions and decimals; percentages, proportions, and ratios; metric and English measurements; and the fundamentals of integer arithmetic and elementary algebraic operations. This course serves as a basis for students who plan to study business mathematics, algebra, or technical mathematics. This course may be repeated three times (four total) by students needing additional help. This course is recommended for students who score below 12.9 on the numerical skills section of the TABE test. Student is required to have a High School Diploma or GED equivalency.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable Elective Only
**MAT.097 Geometry**  
This course will introduce students to undefined terms, axioms and postulates, and theorems. Specific topics include plane and solid geometry, properties of congruence, similarity, ratio and proportion, area, perimeter, and volume of basic figures. Constructions and the writing of inductive, deductive, and indirect proofs will be included.

Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: Not Applicable.  
General Education -- Not Applicable

**MAT.098 Gen Ed Preparatory Math**  
This course is an alternate to MAT 099 Intermediate Algebra for students who are non-STEM (Science Technology Engineering and Math) majors who plan to take MAT 109 Concepts of Math and/or MAT 110 Statistics (Note: STEM and education majors cannot use this to substitute for Intermediate Algebra.) The course curriculum concentrates on problem solving, critical thinking, and data analysis rather than traditional Intermediate Algebra courses that concentrate more on procedures. Linear equations, quadratics, functions, basics exponents and factoring will be included with modeling and some basic probability and statistics. Group work and projects may be part of the course. The use of technology will be encouraged.

Offered: Fall or Spring  
Prerequisites: Take MAT.093 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: Not applicable.  
General Education -- Not Applicable

**MAT.099 Intermediate Algebra**  
This course builds upon a student's early preparation in algebra to provide those skills needed in further study of mathematics, science, or related fields. Topics include the study of the properties of the real number system, polynomials, rational expressions, first-degree equations and inequalities, exponents and radicals, quadratic equations, graphs, functions, systems of linear equations, and logarithms.

Offered: Fall or Spring or Summer  
Prerequisites: Either placement according to the COMPASS Algebra score of 46-65, or one year of high school algebra and one year of high school geometry, or MAT.093 and MAT.097 with grades of C or better and satisfactory score on the department Gateway exam  
Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable

**MAT.101 Technical Mathematics 1**  
This course is designed to serve students enrolled in vocational or technical programs. The emphasis is on skill-building and the applications of mathematics. Topics studied include a review of arithmetic, measurement, approximations, basic algebra, applied geometry, and right triangle trigonometry. Scientific calculators are used and are required of students.

Offered: Fall  
Prerequisites: Either placement according to the COMPASS score or previous experience with elementary algebra. A background in geometry is also helpful.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Math AGS Only

**MAT.102 Technical Mathematics 2**  
This course is a continuation of MAT 101. Topics include linear functions and graphs, laws of sines and cosines, systems of linear equation, exponents and radicals, complex numbers, quadratic equations, logarithms, and other topics from trigonometry. The emphasis is on skill-building and applications of mathematics. A scientific calculator is needed.

Offered: Spring  
Prerequisites: MAT.101  
Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.  
General Education -- Math

**MAT.109 Concepts of Mathematics**  
This course is designed to fulfill general education requirements. In the development of topics, the focus shall be on mathematical reasoning and the solving of real-life problems. Calculators and computers will be used regularly. The units studied include probability and counting techniques, logic and set theory, the mathematics of finance, and statistics. Included in the approach to these topics shall be the use of mathematical models and group projects.

Offered: Fall or Spring or Summer  
Prerequisites: Two years of high school algebra and one year of high school geometry; or an ACT Math score of 25 or higher. Geometry and Intermediate Algebra MAT.097 and MAT.099 both with a grade of C or better, and a satisfactory score on department Gateway exam  
Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. M1 904

General Education -- Math
**MAT.110 General Education Statistics**  3  3  
Using simulations and data collection, students will learn how to organize and interpret data. Real-life examples will serve as the focus as students develop mathematical reasoning skills and the ability to read and interpret statistical reports. Calculators and computers will be used extensively. Topics include descriptive statistics (graphs, averages, variability), elementary probability theory, probability distributions, hypothesis testing of a single parameter, and correlation and linear regression. 
Offered: Spring or Summer  
Prerequisites: Two years of high school algebra and one year of high school geometry or an ACT Math score of 25 or higher. Geometry and Intermediate Algebra, MAT.097 and MAT.099 both with a grade of C or better, and a satisfactory score on the department Gateway exam. 
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. M1 902*  
General Education -- Math

**MAT.111 Mathematics for Elementary Teaching**  3  3  
This course is designed primarily for those students who intend to become elementary school teachers. The emphasis in this course is on problem solving, logic, and mathematical reasoning. The topics studied include sets, logic and reasoning, number bases, modular arithmetic, combinations, and probability. 
Offered: Fall  
Prerequisites: Two years of high school algebra and one year of high school geometry; or Geometry and Intermediate Algebra, MAT.097 and MAT.099 or the equivalent with grades of C or better in each and a satisfactory score on the department Gateway exam. 
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. *General Education -- Math* 

**MAT.112 Math for Elementary Teaching 2**  3  3  
This course is designed primarily for those students planning to become elementary school teachers. The course content includes the study of the properties of the major subsets of real numbers, elementary number theory, the metric system and measurement, and selected topics from descriptive statistics and geometry. Problem solving will be emphasized and calculators will be used extensively. 
Offered: Spring  
Prerequisites: MAT.111 and a satisfactory score on the department Gateway exam. 
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. M1 903*  
General Education -- Math

**MAT.130 College Algebra**  4  4  
This pre-calculus course is appropriate for students whose major interest is in mathematics, science, engineering, or other disciplines requiring a strong preparation in mathematics. The content of this course includes real number properties, linear equations and inequalities, the algebra of functions, exponents, logarithms, systems of linear equations, and sequences and series. Students intending to enter the calculus sequence (MAT 240-242) should also enroll in MAT 140 (Trigonometry). 
Offered: Fall or Spring or Summer  
Prerequisites: Two years of high school algebra and one year of high school geometry, or MAT.093, MAT.097 and MAT.099 with grades of C or better and a satisfactory score on the department’s Gateway exam. 
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only  

**MAT.131 Finite Mathematics**  3  3  
This course is designed for students intending to pursue a baccalaureate degree in an area of business or the social sciences. Topics include the study of the mathematics of finance, matrices, systems of linear equations and inequalities, linear programming, combinations, probability, and Markov Chains. 
Offered: Fall or Summer  
Prerequisites: MAT.130 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. M1 906*  
General Education -- Math

**MAT.132 Calculus for Business Or Social Science**  3  3  
In this course the major ideas of calculus differentiation and integration are developed in an intuitive manner. The emphasis is on skill building and on applications of calculus to the areas of business, economics, and social science. The types of functions studied include polynomials, rational, exponential, and logarithmic. Multivariable content includes applications of partial derivatives. 
Offered: Spring or Summer  
Prerequisites: MAT.130 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. M1 900*  
General Education -- Math
**MAT.140 Trigonometry**  
3 3  
This pre-calculus course is designed for students whose primary interest is in mathematics, science, or engineering. Students intending to complete the calculus sequence (MAT 240-242) should also enroll in MAT 130. Topics included are in-depth study of trigonometry functions, graphs, identities, trigonometric equations, oblique triangles, complex numbers, and DeMoivre’s Theorem.  
Offered: Fall  
Prerequisites: MAT.130 with a grade of C or better or concurrent enrollment  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MAT.171 Calculus Computer Lab 1**  
2 1  
Students will use the computer software DERIVE and/or other appropriate software on computers to investigate topics which are being studied in MAT 240 (Calculus 1). No previous knowledge of computers is assumed. Experiments cover functions and graphs, limits and continuity, the derivative, implicit differentiation, extrema, Newton’s method, areas, exponential and logarithmic functions, approximations, and related applications.  
Offered: Spring  
Prerequisites: Concurrent enrollment in MAT.240  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MAT.172 Calculus Computer Lab 2**  
2 1  
Students will use the computer software DERIVE and/or other appropriate software on computers to investigate topics which are being studied in MAT 241 (Calculus 2). Experiments may cover trigonometric functions, indefinite integrals, improper integrals, polar coordinates, hyperbolic functions, parametric equations, and related applications.  
Offered: Fall  
Prerequisites: Concurrent enrollment in MAT.241  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MAT.210 Statistics**  
3 3  
This course is appropriate for those pursuing careers in the social or natural sciences or in business. Included are units on descriptive statistics, probability theory, random samples, hypothesis testing, regression and correlation, chi-square tests, and an introduction to ANOVA.  
Offered: Spring or Summer  
Prerequisites: MAT.130 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. M1 902  
General Education -- Math

**MAT.240 Calculus With Analytic Geometry 1**  
5 5  
The calculus sequence is intended for those students whose major interest is in mathematics, engineering, or the physical sciences. Major topics covered include a review of lines and functions, limits, the derivative, applications of differentiation, the definite integral, and selected topics from analytic geometry.  
Offered: Spring  
Prerequisites: MAT.130 and MAT.140, with a grade of C or better in each. Students must also enroll concurrently in MAT.171.  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. M1 900  
General Education -- Math

**MAT.241 Calculus With Analytic Geometry 2**  
5 5  
This course is a continuation of MAT 240. Topics covered include applications and techniques of integration, inverse trigonometric functions, improper integrals, polar coordinates, parametric equations, conic sections, infinite series, and Taylor series. Additional topics from analytic geometry may be included.  
Offered: Fall  
Prerequisites: MAT.240 with a grade of C or better. Students must also enroll in MAT.172.  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. M1 900  
General Education -- Math

**MAT.242 Calculus With Analytic Geometry 3**  
4 4  
This course is a continuation of MAT 241. Topics covered include vectors in 2-space and 3-space, vector-valued functions, partial derivatives and applications, and applications involving multiple variable integration.  
Offered: Spring  
Prerequisites: MAT.241 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. M1 900  
General Education -- Math

**MAT.260 Differential Equations**  
3 3  
This course is suitable for students pursuing a career in engineering, physical science, or mathematics. Included are these topics involving solutions to ordinary differential equations: first and second order equations; linear equations; systems of linear equations; LaPlace transforms; applications; numerical approximations.  
Offered: As Needed  
Prerequisites: MAT.242 with a grade of C or better  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MDA Medical Assisting**
Courses

**MDA.100 Fundamentals of Medical Assisting** 2 2

This course introduces the student to the professional role and responsibilities of a medical assistant. Emphasis is placed on communication skills and interpersonal relationships in the clinical environment. Legal and ethical considerations are also covered as they relate to medical practice. Special attention is given to issues associated with patient privacy and confidentiality, including a review of HIPAA regulations.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.101 Intro to Management of Medical Office** 1 1

This course will provide an introduction to the administrative responsibilities associated with management of a medical office. Students will be exposed to issues relevant to personnel, office policies and procedures, conflict resolution, and customer service.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.110 Adm Procedures in Medical Assisting** 3.5 1 4

In this course Medical Assisting students are instructed in the performance of clerical and administrative office procedures. Verbal and written communication skills will be stressed as students study patient reception techniques, appointment scheduling, and medical records management.

Offered: Fall or Spring

Prerequisites: Take BOC.107

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.112 Pharmacology & Medication Administration** 1.5 1 2

This course introduces the student to the principles of pharmacology and the uses and effects of commonly prescribed drugs. The professional role and legal responsibilities of the medical assistant are emphasized as students study the calculation of medication dosages and the techniques of administration.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.115 Clinical Medical Assisting 1** 4 2 5

This course will introduce the student to the clinical aspects of a medical office environment. The student will learn how to assist the physician in the general examination and treatment of patients, take vital signs, collect health information, and perform basic screening procedures. The course will cover the principles of infection control, including the use of standard precautions and adherence to OSHA guidelines. Patient education/instruction will also be emphasized.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.120 Financial Procedures in the Medical Off.** 4 4

Students will explore the financial aspects of a medical office and develop an understanding of coding, billing and third-party reimbursement processes. A basic introduction to banking services and office accounting procedures is also included.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.125 Clinical Medical Assisting 2** 3 2 4

This course expands on the clinical skills learned in MDA 115 by focusing on the duties and responsibilities of a medical assistant employed in a specialty practice. Students will cover examinations, tests and treatments that are common to each specialized clinical practice area. Emphasis will also be placed on the study of disorders and diseases relevant to each medical specialty or associated body system.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable

**MDA.127 Clinical Laboratory Procedures** 1.5 3 3

This course provides instruction in clinical laboratory procedures typically performed by medical assistants. Students are taught collection and processing of specimens as well as the performance of selected laboratory tests. Basic instruction in venous and capillary puncture (phlebotomy) is included in the course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable. General Education -- Not Applicable
MDC.101 Medical Coding Icd

Students will be introduced to medical coding principles using the most current version of ICD-CM (International Classification of Diseases - Clinical Modification) necessary to arrive at correct coding assignments for both diagnosis and in-patient procedures. Students will take clinical documentation and modify it into an ICD-CM alphanumeric or numeric code. Students will also be introduced to accurate and ethical coding by correct selection of diagnosis following official guidelines of the UHDDS (uniform hospital discharge data set).

Offered: Spring
Prerequisites: BIO.111 and MDT.100 with a minimum grade of C
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

MDC.102 Medical Coding Cpt

This course is intended to introduce the student to the concepts of current procedural coding. Through guided instruction and practical experience, students will learn how to apply and where to locate the guidelines for assigning correct procedural codes to physician documentation. At the end of the course, the student should be able to appropriately code procedure codes to the medical record as well as assign any modifiers using the CPT book and concepts learned.

Offered: Fall
Prerequisites: BIO.111 and MDT.100 with a minimum grade of C
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

MDT Medical Terminology

This course is to assist students to effectively communicate in the field of health care. Students who take this course will become familiar with medical terminology by learning to dissect words in order to determine their meaning. A body systems approach to learning medical language will be used. Word parts will be used to build, analyze, define, and spell medical terms. Structural, directional, disease and disorder, surgical, and diagnostic terms; pronunciations; and abbreviations will be included.

Courses

MDT.090 Introduction to Medical Terminology

This course is designed for anyone desiring a background in the language of medicine, and presents a system of learning medical terms from word roots, combining forms, prefixes and suffixes. By the end of the course the student will be able to recognize, build, define and spell correctly literally thousands of medical words from the elements learned, and be proficient in using a medical dictionary. This course is useful for anyone in the health care professions: those working in hospitals (nurses, radiologic technologists, unit secretaries, people in medical records or the business office, etc.) in a doctor’s office, in nursing homes or those in Emergency Medical Technology. Those entering nursing will find Medical Terminology a great asset to understanding lectures and textbooks, making their learning easier.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

MET Metallurgy
**Courses**

**MET.100 Metallurgy Fundamentals**

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This course provides a study of the fundamental chemical and physical concepts of metallurgy for students preparing for initial or improved employment. Emphasis is placed upon measurement of physical properties, chemical properties, grain size and growth, heat treatment, and mechanical testing.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**MFG Manufacturing**

**MFG.125 Industrial Blueprints**

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The student will learn how to read and interpret the different types of standard symbols and abbreviations found on industrial drawings. Students will be provided with instruction that enables them to understand the various types of blueprints, shop prints, and schematics used in an industrial environment. Students will interpret the different types of standard symbols and abbreviations found on electrical construction drawings, schematics and wiring diagrams. This course will benefit students entering any industrial trade.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificate where applicable.

General Education -- Not Applicable

**MIS Military Science**

**MIS.111 Leadership & Personal Development**

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In this course, designed to introduce students to ARMY ROTC and the organization of the US. army and its role in American society, students will (A) explore fundamental concepts in leadership, in both classroom and outdoor activities; (B) increase self-confidence through optional activities in rappelling, leadership reaction course, and basic marksmanship. This course is offered on the campus of Western Illinois University by the Western Illinois University Department of Military Science.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MIS.112 Introduction to Tactical Leadership**

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This course is a continuation of MIS 111. Students will continue to build a knowledge base of soldier skills such as first aid, marksmanship, and writing. In addition, students will have an opportunity to develop leadership skills through basic drill, rappelling exercises, and have the opportunity to complete the leadership reaction course. Students are taught skills required by the individual soldier in the field. The student is also taught to write in the Army style. This course is offered on the campus of Western Illinois University by the Western Illinois University Department of Military Science.

Offered: Spring

Prerequisites: MIS.111

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MIS.113 Introduction to Military Science**

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In this course students are offered an overview of such leadership fundamentals as setting direction, problem-solving, listening, presenting briefs, providing feedback, and using effective writing skills. Cadets explore dimensions of leadership values, attributes, skills, and actions in the context of practical, hands-on, and interactive exercises. This is a combination version of MIS 111 and MIS 112 for students entering ROTC in midyear. Students who received credit for MIS 112 will not receive credit for MIS 113. This course is offered on the campus of Western Illinois University by the Western Illinois University Department of Military Science.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MLT Medical Lab Technician**

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Courses

**MLT.100 Phlebotomy**

Successful completion of this course will provide students with the skills required to competently perform venipuncture and capillary puncture for blood collection purposes. Lecture and laboratory practice will focus on safe practice in performing basic blood drawing procedures. Instruction will also include infection control, legal and ethical responsibilities, professionalism and interpersonal communication skills. Additional specimen collection procedures will be discussed as needed.

Offered: Fall or Spring or Summer

Prerequisites: COMPASS Reading score of 63 or RDG.096 with a grade of C or better, or ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MRI Magnetic Resonance Imaging**

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This course introduces the student to the principles of nuclear magnetic resonance and the equipment used to produce the MR image. Emphasis is placed on understanding the relationships between the various imaging sequences/parameters and how their selection affects diagnostic quality. MR safety considerations and quality assurance techniques are also presented. Admission to the Magnetic Resonance Imaging program is required to enroll in this course.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MRI.252 MR Imaging Procedures**

This course introduces the student to magnetic resonance imaging procedures. Patient screening and scanning protocols for examination of the head, neck, spine, thorax, abdomen, pelvis, musculoskeletal, and vascular systems will be addressed. The MRI technologist's role in identifying disease processes and trauma conditions will also be emphasized as it relates to the selection of MR imaging planes, sequences, and parameters. Admission to the Magnetic Resonance Imaging program is required to enroll in this course.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MRI.255 MRI Practicum**

This practicum course involves three days per week of clinical experience in affiliate hospitals and/or imaging centers. Assignments are made to enable students to achieve competency in performing magnetic resonance imaging procedures and in evaluating equipment operation. Course includes clinical seminars. Admission to the Magnetic Resonance Imaging program is required to enroll in this course.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MTL Machine Tool**

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<td>MTL.101 Machine Tool Fundamentals 1</td>
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This course provides a basic introduction to machine tools with the primary emphasis on the engine lathe, drill press and hand tools common to the machinist trade.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MTL.103 Manufacturing Processes**

This course is designed to familiarize the student with the basic processes that are common to industry and the techniques used in the manufacturing of a product.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:
- Degree or Certificate: AAS, AGS, and Certificates where applicable.
- General Education -- Not Applicable

**MTS Mortuary Science**
Courses

**MTS.110 History of Mortuary Science**  
3 3

Funeral practices and beliefs of all major Western cultures from pre-Egyptian times to the present are reviewed with special emphasis on Judeo Christian tradition as the primary basis of modern belief. The origin and development of present day practices including embalming and disposition are discussed. Special emphasis is placed on modern development in funeral service education and professional organizations. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.) Admission to the Mortuary Science program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**MTS.120 Mortuary Law**  
3 3

Instructional material will include the study of the laws as they pertain to the everyday operation of a licensed funeral home within each of the various states. This information will include such issues as trust funds, pre-arrangement laws, employment laws and rules, laws regarding cremation, and disinterment. Licensing rules will also be addressed in this course as well. This course must be completed with a grade of C or above to continue in the Mortuary Science Program. Admission to the Mortuary Science program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**MTS.130 Introduction to Microbiology - Mort Sci**  
2

This eight week course is designed to introduce the student to the principles of microbiology as they relate to the mortuary science profession. Areas of study will include the role of diseases and types of pathogens and microbes which will infect and attack the human body. Study will include issues pertaining to both the spread of infectious agents, as well as their control. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Spring

Prerequisites: BIO.111 and CHM.100 with grades of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**MTS.131 Introduction to Pathology-Mortuary Sci**  
2 2

This eight-week course is designed to meet the needs of students in the Mortuary Science Program. It will include a general discussion of disease and a brief introduction to surgical, clinical, physiological, and forensic pathology. (This course must be completed with a grade of C or above to continue in the Mortuary Science program.

Offered: Spring

Prerequisites: BIO.111 and CHM.100 with grades of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**MTS.140 Embalming 1**  
3.5 1 4

The student will be introduced to the techniques of embalming and preparation of the deceased for public viewing. Instruction covers knowledge of the skills necessary to embalm a normal case. Theory, practices and techniques of sanitation, restoration, and preservation of the deceased human remains are included. Laboratory experience will consist of a dissection laboratory and other related activities. Pre-embalming, embalming and post-embalming treatments will be covered in depth. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Fall

Prerequisites: BIO.111 and CHM.100 with grades of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**MTS.150 Psychology of Grief & Death**  
3 3

This course has been designed to look at many perspectives of death, dying, grief, bereavement, and the human experiences and difficulties that each of us face. This course is a comprehensive study of the patterns of death and dying that the funeral profession will face. Some of the course will include past history of the mourning process, last rites, death in children's lives, and special cases. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Fall

Prerequisites: BIO.111 and CHM.100 with grades of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable
**MTS.160 Funeral Service Administration**  
5 5

This course is designed to teach effective funeral home management skills. Instruction includes recognizing, analyzing, and solving funeral service management problems and establishing and implementing policies regarding funeral home management. Funeral home operation and records, ethics, and professional regulations are examined. Laws that govern the practice of funeral services, the Illinois License Law, Vital Statistics Act, transportation rules and Social Security are studied. Responsibilities and relationships to local boards of health and the State Department of Public Health are emphasized. The student also develops product knowledge which includes caskets, vaults, monuments, and urns. This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Fall
Prerequisites: MTS.120 and BUS.201 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.170 Restorative Art**  
3 2 4

Instruction covers the restoration of the deceased for public viewing. Every aspect of performing a partial or total restoration is covered. Students will study the structure of the cranial and facial areas of the human skull and gain an appreciation of each facial feature's physiognomy, as well as its parts in the overall composite. Laboratory experience will consist of doing partial or total restorations for normal cases. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Fall
Prerequisites: BIO.111 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.210 Funeral Service Counseling**  
4 4

Current theories in personal counseling with an emphasis on bereavement are covered. The student is taught counseling skills and is introduced to disaster management and crisis intervention skills. Counseling in grief resolution is examined. Funeral service counseling needs are examined in relation to a variety of cultural, religious, and ethnic groups and their individual needs. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program).

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.215 Introduction-Mass Fatalities Incidents**  
2 2

This course is designed to introduce the student to the effective management of a mass fatalities incident. This course will include formal lecture and training involving all aspects of handling a mass fatality. This includes various types of incidents as well as information regarding the cooperative agencies that will be involved with the operation. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.) Must have second year student status in the Mortuary Science program to enroll in this course.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.220 Funeral Directing**  
4 4

This course is designed to introduce the student to the various types and styles of service that the funeral director must provide to the families that are served by the funeral home. These will include the various religions, as well as ethnic, social, and fraternal influences. The students will also have an opportunity to participate in making mock funeral arrangements, as well as directing those mock funerals. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Spring
Prerequisites: MTS.150 and MTS.160 with grades of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.225 Thanatochemistry**  
3 3

This course will offer an in-depth study of the basic principles of chemistry as they specifically relate to funeral service. Especially stressed are the chemical principles and precautions involved in sanitation, disinfection, public health, and embalming practice. Emphasis is placed on selected aspects of general chemistry, organic chemistry, and biochemistry as they relate to decomposition, disinfection, and the process of embalming. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)

Offered: Fall
Prerequisites: CHM.100 with a grade of C or better, and concurrent enrollment in MTS.140
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**MTS.230 Embalming 2**  
3.5 1 4

This course offers an in-depth study of the various problems of embalming and proper chemicals used for each. Emphasis is placed on providing the student with the knowledge and skills necessary to care for any deviation from normal as it pertains to the preparation of the deceased for public viewing. Laboratory experience will consist of a dissection laboratory and other related activities.

Offered: Spring
Prerequisites: MTS.140 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
MTS.240 Funeral Service Seminar 1 1
This course is designed to allow for extensive testing of the student's knowledge, both theoretical and technical. Reviews of the material for the National Board Examination will take place at this time and examinations will be administered. These examination topics will be announced ahead of time and will be selected from the various subjects of study as listed within the curriculum outlines from the American Board of Funeral Service Education. This course will further prepare each student prior to graduation for the successful completion of the National Board Examination. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.)
Offered: Spring
Prerequisites: MTS.160 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

MTS.250 Funeral Service Practicum 15 3
Students will be assigned by the program coordinator to an approved funeral home for an eight week period learning from actual practice situations. Students will not be allowed to return to either a present or former employer for this eight week period. This practicum will serve as an actual practice situation involving organization and administration of procedures and policies of the establishment. Students will perform duties as assigned by the preceptor and coordinator to include the participation in the execution of not less than 10 total funeral services rendered to a family. Service reports and other assignments are also required to be completed by the student. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.) Student must have permission of program coordinator to enroll in this course.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

MTS.260 Restorative Arts/Embalming Practicum 15 3
Students will be assigned by the program coordinator to an approved funeral home for an eight-week period learning from actual practice situations. Students will not be allowed to return to either a present or former employer for this eight week period. The students will learn embalming and restorative art techniques by active participation in these experiences under the supervision of an approved clinical instructor or preceptor. Service reports and other assignments are also required to be completed by the student. (This course must be completed with a grade of C or above to continue in the Mortuary Science Program.) Requirement: The student must pass a practical examination on embalming techniques at the conclusion of their practicum in order to successfully pass this course. Student must have permission of program coordinator to enroll in this course.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

MTS.270 Exam Review Seminar 1 1
This seminar course is designed to assist each student in identifying weak areas of study as well as allow for a comprehensive review of educational materials that will be contained within the National Board Examination that each student must take. This will aid each participant in the study of material as a review. Student must have permission of program coordinator to enroll in this course.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

MUS Music

MUS.100 Music in the Western World 3 3
Through understanding of the common elements of music, students trace the common ingredients of music from the Middle Ages to the present day. The study is undertaken in an historical and cultural perspective that highlights the great composers and compositions of the last 1000 years. The course is open to all students.
Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. F1 900
General Education -- Humanities Human Relations

MUS.101 Introduction to American Music 3 3
This course traces the origins and changes in our folk, religious, classical and popular music. It is open to all students.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. IAI Course No. F1 904
General Education -- Fine Arts Human Relations

MUS.102 Music Fundamentals 3 3
This course is designed for students who want to learn how to read music for either further study or personal reasons. It is open to all students and is generally required for elementary teachers and recommended for child development students.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only
**MUS.105 Non-Western Music**  
This course covers the basic elements of music (melody, rhythm, harmony, and form) and perceptive listening as they relate to non-Western music. Examines the music culture of several non-Western societies.
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
**IAI Course No. F1 903N**  
General Education -- Fine Arts Human Relations

**MUS.106 Introduction to Jazz**  
This course is an introduction to the history and nature of jazz music. It includes historical background, styles, forms, aesthetics, personalities, literature, and the evolution of jazz music and its influence on art and popular music.
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.110 Music Theory 1**  
This course unfolds the facets of rhythm, harmony and melody for students who have had MUS 102 or the equivalent background. This course will present the principles and practice of basic harmonic and form analysis, part writing, and original composition.
Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.111 Music Theory 2**  
This course is a continuation of MUS 110. Some chromatic techniques are included as well as diatonic part writing and analysis. Original compositions are used to deepen analytical skills and as an outlet for creativity.
Offered: Spring  
Prerequisites: MUS.110  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.112 Class Piano 1**  
This course focuses on developing playing skills sufficient to cope with simple, practical situations. It is designed to prepare music majors for the keyboard competency exams that are required for juniors at four-year institutions. Emphasis is on tonal notation, harmonization, transposition, sight reading, improvisation, ensemble playing and basic piano literature.
Offered: Fall  
Prerequisites: Take MUS.102;  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.113 Class Piano 2**  
This course is a continuation of MUS 112, developing playing skills sufficient to cope with simple, practical situations. It is designed to prepare music majors for the keyboard competency exams that are required for juniors at four-year institutions. Emphasis is on tonal notation, harmonization, transposition, sight reading, improvisation, ensemble playing and basic piano literature.
Offered: Spring  
Prerequisites: MUS.112  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.114 Ear Train & Sight Sing 1**  
This is a laboratory class involving sight-singing and melodic, harmonic, and rhythmic dictation.
Offered: Fall  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.115 Ear Train & Sight Sing 2**  
This course is a continuation of MUS 114 and is a laboratory class involving sight-singing and melodic, harmonic, and rhythmic dictation.
Offered: Spring  
Prerequisites: MUS.114  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only

**MUS.120 Class Voice**  
This course is for the development and improvement of vocal knowledge and skills. The class is designed for beginning voice students.
Offered: As Needed  
Applicable toward graduation at Sandburg where program structure permits:  
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
General Education -- Not Applicable Elective Only
**MUS.121 Class Piano for Non-Major**  
0.5 1 1

This course is for the beginning adult pianist who has had no background in music but does have an interest and desire to learn about music and develop the skills necessary to play the piano. The student will be informed of the goals at the beginning of the term, and teacher and student will evaluate the experience at the end of each semester. It may be repeated three times for up to a maximum of four semester hours of credit.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.122 Jazz Combo**  
2 1

The Jazz Combo is composed of four to eight musicians who perform and study jazz in a small group setting. The literature for the ensemble ranges from Dixieland to be-bop and modern jazz. Students explore the language, skills, and materials of jazz music through performing a variety of jazz combo repertoire. Improvisation is required of all jazz combo performers. It may be taken twice for credit. An audition is required. Instructor permission is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.123 Sandburg Choir**  
2 1

The Sandburg Choir is a mixed-voice ensemble which performs a wide variety of music, including classical, jazz, folk, spiritual, and contemporary. The group performs frequently, both off and on campus, and tours annually. It may be taken twice for credit. An audition is required.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.124 Galesburg Community Chorus**  
2 1

The Galesburg Community Chorus is a mixed-voice, non-auditioned ensemble which focuses on the performance of major works of the choral/orchestral repertoire. The group is composed of community members as well as high school and college students. There are two principal performances each year. This course may be taken twice for credit.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.125 Small Vocal Ensemble**  
2 1

The Small Vocal Ensemble is a select group of singers whose members are chosen from the Sandburg Choir. This group specializes in performing music specifically appropriate for small vocal ensembles, from madrigals and motets to vocal jazz. There are frequent public performances, both on and off campus. The group tours each year with the Sandburg Choir. This course may be taken twice for credit. An audition is required. Instructor permission is required to enroll in this course.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.126 Knox-Sandburg Community Band**  
2 1

The Knox-Sandburg Community Band is a non-auditioned ensemble which focuses on the performance of high quality works of the concert band repertoire. The group performs music of a wide variety of styles, including classical, jazz, and contemporary. It is composed of community members as well as high school and college students. There are three principal performances each year. It may be taken twice for credit.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.130 Private Piano 1**  
0.5 1 1

This course provides one half-hour private piano lesson each week and is open to all students. Students are required to document a minimum of fifteen minutes practice per day. It may be repeated once for up to a maximum of two semester hours of credit. Instructor consent required.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**MUS.131 Private Brass 1**  
0.5 1 1

This course provides one half-hour private brass lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only
MUS.132 Private Organ 1  
This course provides a one-half-hour private organ lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.133 Private Woodwind 1  
This course provides a one-half-hour private woodwind lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.134 Private Guitar 1  
This course provides one half-hour private guitar lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.135 Private Voice 1  
This course provides a one half-hour private voice lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.136 Private Strings 1  
This course provides a one half-hour private string lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.137 Private Percussion 1  
This course provides a one half-hour private percussion lesson each week and is open to all students. It may be repeated one time for up to a maximum of two semester hours of credit. Instructor consent required. 
Offered: Fall or Spring or Summer 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.140 Private Piano 1  
This course provides a one hour private piano lesson each week and is essential for music majors or minors. It is, however, open to all students. It may be repeated once for up to a maximum of four semester hours of credit. Instructor consent required. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.141 Private Brass 1  
This course provides a one hour private brass lesson each week and is essential for music majors or minors. It is, however, open to all students. It may be repeated once for up to a maximum of four semester hours of credit. Instructor consent required. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.142 Private Organ 1  
This course provides a one hour private organ lesson each week and is essential for music majors or minors. It is, however, open to all students. It may be repeated one time for up to a maximum of four semester hours of credit. Instructor consent required. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only 

MUS.143 Private Woodwind 1  
This course provides an one-hour private woodwind lesson each week and is essential for music majors or minors. It is, however, open to all students. It may be repeated one time for up to a maximum of four semester hours of credit. Instructor consent required. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: 
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. 
General Education -- Not Applicable Elective Only
MUS.144 Private Guitar 1

This course provides a one hour private guitar lesson each week and is essential for music majors or minors. It may be repeated one time for a maximum of four semester hours of credit. Instructor consent required.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.145 Private Voice 1

This course provides a one hour private voice lesson each week and is essential for music majors studying voice. It may be repeated one time for a maximum of four semester hours of credit. Instructor consent required.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.146 Private Strings 1

This course provides a one hour private string lesson each week and is essential for music majors or minors. It may be repeated one time for a maximum of four semester hours of credit. Instructor consent required.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.147 Private Percussion 1

This course provides a one hour private percussion lesson each week and is essential for music majors or minors. It may be repeated one time for a maximum of four semester hours of credit. Instructor consent required.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.200 Music History & Literature

This course is an introduction to the standard concert repertory through intensive guided listening. Representative works by composers are chosen to illustrate the principal styles, forms, and techniques of vocal and instrumental music. A study of musical attitudes throughout history including discussions on female composers and ethnic music, will be integrated into the semester course. This course assumes a fundamental knowledge and understanding of the elements of music.
Offered: As Needed
Prerequisites: MUS.210
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Human Relations

MUS.205 Music and Society

An examination of societal issues as they are manifested, through time, in music. Topics include musical expression and connection in gender, ethnicity, spirituality, war, politics, performance, film, dance, and narrative expression.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.210 Music Theory 3

This course is a continuation of MUS 111 and is essential for music majors. More complex harmonies of the 18th and 19th Centuries are studied. Creativity is always encouraged.
Offered: Fall
Prerequisites: MUS.111
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.211 Music Theory 4

This course is a continuation of MUS 210 and is largely concerned with 19th and 20th Century compositional techniques. Analysis of works in any era is required.
Offered: Spring
Prerequisites: MUS.210
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only
MUS.212 Class Piano 3 2 1

This course is a continuation of MUS 113 and focuses on developing playing skills sufficient to cope with simple, practical situations. It is designed to prepare music majors for the keyboard competency exams that are required for juniors at four-year institutions. Emphasis is on tonal notation, harmonization, transposition, sight reading, improvisation, ensemble playing and intermediate-level piano literature.
Offered: Fall
Prerequisites: MUS.113
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.213 Class Piano 4 2 1

This course is a continuation of MUS 212 and focuses on developing playing skills sufficient to cope with simple, practical situations. It is designed to prepare music majors for the keyboard competency exams that are required for juniors at four-year institutions. Emphasis is on tonal notation, harmonization, transposition, sight reading, improvisation, ensemble playing and intermediate-level piano literature.
Offered: Spring
Prerequisites: MUS.212
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.214 Ear Train & Sight Sing 3 2 1

This course is a continuation of MUS 115 and is a laboratory class involving sight-singing and melodic, harmonic, and rhythmic dictation.
Offered: Fall
Prerequisites: MUS.115
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.215 Ear Train & Sight Sing 4 2 1

This course is a continuation of MUS 214 and is a laboratory class involving sight-singing and melodic, harmonic, and rhythmic dictation.
Offered: Spring
Prerequisites: MUS.214
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.222 Jazz Combo 2 1

The Jazz Combo is composed of 4-8 musicians who perform and study jazz in a small group setting. The literature for the ensemble ranges from Dixieland to be-bop and modern jazz. Students explore the language, skills, and materials of jazz music through performing a variety of jazz combo repertoire. Improvisation is required of all jazz combo performers. It may be taken twice for credit. An audition is required.
Offered: Fall or Spring
Prerequisites: Take 2 semester of MUS.122;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.223 Sandburg Choir 2 1

Sandburg Choir is a mixed-voice ensemble that performs a wide variety of music, including classical, jazz, folk, spiritual, and contemporary. The group performs frequently, both off and on campus, and tours annually. It may be taken twice for credit. An audition is required.
Offered: Fall or Spring
Prerequisites: Take 2 semesters of MUS.123;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.224 Galesburg Community Chorus 2 1

Sandburg Choir is a mixed-voice ensemble that performs a wide variety of music, including classical, jazz, folk, spiritual, and contemporary. The group performs frequently, both off and on campus, and tours annually. It may be taken twice for credit. An audition is required.
Offered: Fall or Spring
Prerequisites: Take 2 semester of MUS.124
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.225 Small Vocal Ensemble 2 1

The Sandburg Chamber Choir is a select group of singers whose members are chosen from the Sandburg Choir. This group specializes in performing music specifically appropriate for small vocal ensembles, from madrigals and motets to vocal jazz. There are frequent public performances, both on and off campus. The group tours each year with the Sandburg Choir. It may be taken twice for credit. An audition is required.
Offered: Fall or Spring
Prerequisites: Take 2 semesters of MUS.125 or instructor permission
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AFA, AS, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only
MUS.226 Knox Sandburg Community Band 2 1

The Knox-Sandburg Community Band is a non-auditioned ensemble that focuses on the performance of high quality works of the concert band repertoire. The group performs music of a wide variety of styles including classical jazz, and contemporary. It is composed of community members as well as high school and college students. There are three principal performances each year. This call may be taken twice for credit.
Offered: Fall or Spring
Prerequisites: Take 2 semesters of MUS.126;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.230 Private Piano 2 .5 1 1

This course provides a one-half hour private piano lesson each week and is open to all students. It may be repeated once. All students must have completed two semesters of MUS 130 or MUS 140 and have passed an audition for entry. Instructor consent required.
Offered: Fall or Spring or Summer
Prerequisites: Two semesters of MUS.130 or MUS.140
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.231 Private Brass 2 .5 1 1

This course provides a one-half hour private brass lesson each week and is open to all students. It may be repeated once. All students must have completed two semesters of MUS 131 or MUS 141 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.131 or MUS.141;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.232 Private Organ 2 .5 1 1

This course provides a one-half hour private organ lesson each week and is open to all students. It may be repeated for up to a maximum of eight semester hours of credit. All students must have completed two semesters of MUS 132 or MUS 142 and have passed an audition.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.132 or MUS.142;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.233 Private Woodwind 2 .5 1 1

This course provides a one-half hour private woodwind lesson each week and is open to all students. It may be taken twice for credit. All students must have completed two semesters of MUS 133 or MUS 143 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.133 or MUS.143;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.234 Private Guitar 2 .5 1 1

This course provides a one-half hour private guitar lesson each week and is open to all students. It may be repeated for up to a maximum of four semester hours of credit. All students must have completed two semester of MUS 134 or MUS 144 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.124 or MUS.144;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.235 Private Voice 2 .5 1 1

This course provides a one-half hour private voice lesson a week and is open to all qualified students. The course may be repeated three times up to four semester hours of credit. All students must have completed two semester of MUS 135 or MUS 145 and have passed an audition for entry. Instructor consent required.
Offered: Fall or Spring or Summer
Prerequisites: Two semesters of MUS.135 or MUS.145
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.236 Private Strings 2 .5 1 1

This course provides a one-half hour private string lesson each week and is open to all students. It may be repeated for up to a maximum of four semester hours of credit. All students must have completed two semesters of MUS 136 or MUS 146 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take two semesters of MUS.136 or MUS.146;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only
MUS.237 Private Percussion 2

This course provides a one half-hour percussion lesson each week and is open to all students. It may be repeated once for credit. All students a MUS 147 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.137 or MUS.147;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.240 Private Piano 2

This course provides a one hour private piano lesson each week and is essential for piano majors. It is, however, open to all qualified students. It may be repeated once for credit. All students must have completed two semesters of MUS 130 or MUS 140 and have passed an audition for entry.
Offered: Fall or Spring
Prerequisites: Two semesters of MUS.130 or MUS.140
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.241 Private Brass 2

This course provides a one hour private brass lesson each week and is open to all students. It may be repeated once for credit. All students must have complete two semesters of MUS 131 or MUS 141 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.131 or MUS.141;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.242 Private Organ 2

This course provides a one hour private organ lesson each week and is open to all students. It may be repeated once for credit. All students must have complete two semesters of MUS 132 or MUS 142 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.132 or MUS.142;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS,AAS, AFA, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.243 Private Woodwind 2

This course provides a one half-hour private woodwind lesson each week and is open to all students. It may be repeated twice for credit. All students must have completed two semesters of MUS 133 or MUS 143 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.133 or MUS.143;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.244 Private Guitar 2

This course provides a one hour private guitar lesson each week and is open to all students. It may be taken twice for credit. All students must have complete two semesters of MUS 134 or MUS 144 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.134 or MUS.144
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.245 Private Voice 2

This course provides a one hour private voice lesson once a week. The course is essential for voice majors and public school music majors. It is, however, open to all qualified students. The course may be taken twice for credit. All students must have completed two semesters of MUS 135 or MUS 145 and have passed an audition for entry.
Offered: Fall or Spring
Prerequisites: Two semesters of MUS.135 or MUS.145
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

MUS.246 Private Strings 2

This course provides a one hour private strings lesson each week and is open to all students. It may be repeated once for credit. All students must have complete two semesters of MUS 136 or MUS 146 and have passed an audition for entry.
Offered: As Needed
Prerequisites: Take 2 semesters of MUS.136 or MUS.146;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only
### MUS.247 Private Percussion 2

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This course provides a one hour private percussion lesson each week and is open to all students. It may be repeated once for credit. All students must have complete two semesters of MUS 137 or MUS 147 and have passed an audition for entry.

Offered: As Needed

Prerequisites: Take 2 semester of MUS.137 or MUS.147

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AFA, AGS and Certificates where applicable.

**General Education -- Not Applicable Elective Only**

### NAD Nursing Associate Degree

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<td><strong>NAD.105 Introduction to Professional Nursing</strong></td>
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This course focuses on the study and practice of concepts and skills based on nursing. Universal needs basic to all individuals are identified and developmental needs of the middle and older adult are discussed. The nursing process is introduced and serves as the foundation for the development of critical thinking skills. The three roles, Provider of Care, Manager of Care, and Member Within the Discipline are introduced. Communication, teaching/learning skills, and legal standards and ethical principles are included. Pharmacology principles and concepts of major drug classifications will be integrated as appropriate to the units of study. Learning experiences are provided in the classroom and auto-tutorial lab, clinical practice lab, and clinical settings. A unit entitled Nursing Care in a Diverse Society will focus on the issues and implications associated with caring for clients with diverse and complex cultural backgrounds. Satisfactory (S) performance in clinical and the clinical simulation lab, and a minimum grade of C in theory are required in order to pass the course. Admission to the Associate Degree Program and placement on the Illinois Nurse Aide Registry in good standing. Students who are registry eligible will be admitted to the program condition on their placement on the Illinois Nurse Aide Registry by the end of the fall semester. Other: A student must achieve a 80% or better in theory for completion of a nursing course taken at Carl Sandburg College. A satisfactory in clinical practice lab and clinical are also required. Students must pass both the theory and lab/clinical portion of the course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

**General Education -- Not Applicable**

### NAD.125 Nursing Care-Individuals Health Problems

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This course builds on concepts, skills, and theory learned in NAD 105 and includes care of the client with selected common health problems. Students are provided the opportunity to use the concepts of the nursing process and critical thinking in the clinical setting. Learning experiences are provided in the classroom and auto-tutorial lab, clinical practice lab, and clinical settings. Pharmacology principles and concepts of major drug classifications will be integrated as appropriate to the units of study. A unit entitled Disaster Preparedness will focus on the issues and implications associated with caring for multiple clients involved in a natural and/or human-made disaster. Satisfactory (S) performance in clinical and the nursing laboratory and a minimum grade of C in theory are required in order to pass the course. Student must be in good standing on the Illinois Health Care Worker Registry.

Offered: Spring

Prerequisites: NAD.105 and BIO.211 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

**General Education -- Not Applicable**

### NAD.180 LPN to RN Transition

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This course will provide an avenue of instruction for Licensed Practical Nurses who wish to obtain an Associate Degree in Nursing. The course will be built on previous knowledge from an accredited LPN nursing program. The LPNs entering the course will have basic competencies and this course will build on these competencies. The course will include theory on role transition in the current health care system, related professional ethical and legal issues, understanding and application of critical thinking skills, the application of the nursing process in the adult clinical setting, basic intravenous therapy, and the methods and techniques of effective interdisciplinary communication and therapeutic patient communication. The course will provide the foundational understanding of the role of the RN in the provider of care, member of the discipline and manager of care as the student transitions into the courses of the ADN program. Licensed Practical Nurse or successful completion of an accredited practical nursing program with a grade of C or better in all nursing courses is required.

Offered: As Needed

Prerequisites: Licensed Practice Nurse or successful completion of an accredited Practical Nursing program with a grade of C or better in all nursing courses.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

**General Education -- Not Applicable**
NAD.200 Nurse Care of Ind & Fam W/Hlth

This course focuses on the role of the nurse in meeting the universal needs of the childbearing family. It also includes care of adult clients with selected complex health problems. Related ethical and legal issues are examined. Students continue to expand their theoretical knowledge, use of the nursing process, and nursing skills as well as critical thinking and decision-making ability. Clinical experiences are provided in a variety of settings within and beyond the acute care institution. Students implement basic management skills as a member of the interdisciplinary team. Learning experiences are provided in the classroom, autotutorial laboratory, campus laboratory, and clinical settings. Satisfactory (S) performance in clinical and the nursing laboratory and a minimum grade of C in theory are required in order to pass the course. Licensed Practical Nurse graduates from an accredited program will be admitted through advanced placement. Students must meets minimum score for associate degree nursing program entrance test.

Offered: Fall
Prerequisites: NAD.125 with a grade of C or better and all corequisites including BIO.200 with a grade of C or better. NAD.180 with a grade of C or better for Licensed Practical Nurse graduates from an accredited program admitted through advanced placement. Meets minimum scores for Associate Degree Nursing program entrance test.

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

NAD.210 Nurse Care of Ind Fam & Group

This course includes the integration of mental health concepts in providing care to individuals, families, and groups. It also examines concepts necessary to provide care to children. Emphasis is on principles of growth and development and on care of the child as part of the family unit. Students are provided an opportunity to expand theoretical knowledge, to use the nursing process, and to use nursing skills in caring for groups of clients in a variety of settings within and beyond the acute care institution. The course helps the student prepare for the transition from student to graduate. Emphasis is on the role of the manager of care and the responsibilities of a member within the discipline of nursing. Learning experiences are provided in the classroom, the auto-tutorial laboratory, the campus laboratory, and clinical settings. Satisfactory (S) performance in clinical assignments and a minimum grade of C in theory are required in order to pass the course.

Offered: Spring
Prerequisites: NAD.200 and all corequisites with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

NAD.220 Professional Issues

Professional Issues assists the student in the final semester of the nursing program to make the transition from student to effective practitioner at the entry level. Strategies for planning a career and advancing the profession of nursing will be emphasized. Employment considerations will be examined in relation to a rapidly changing health care delivery system. The importance of political action for a member within the discipline of nursing will be analyzed. The Illinois Nurse Practice Act will be studied as it relates to the Registered Nurse.

Offered: Spring
Prerequisites: NAD.200 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

NMT Nuclear Medicine Technician

NMT.250 Physics of Nuclear Medicine Technology

This course begins with an overview of the basic principles of Nuclear Medicine Technology. Study of the physics of particulate and non-particulate forms of radiation will be followed by the study of radionuclide production and decay processes. Methods used to detect and measure radioactivity will be introduced with respect to both imaging and non-imaging applications. The biological effects of radiation and radiation protection guidelines specific to nuclear medicine procedures will also be addressed. Admission to the Nuclear Medicine Technology program is required to enroll in this course.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable

NMT.252 Nuclear Medicine Procedures 1

This course first introduces students to general techniques of patient care as applicable to Nuclear Medicine. Clinical indications for performing selected nuclear medicine procedures will be discussed with emphasis on both the physiological and technical aspects of the examinations. Normal and abnormal structure and function will be studied through the presentation of case studies demonstrating relevant pathology. Admission to the Nuclear Medicine Technology program is required to enroll in this course.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AGS and Certificates where applicable.
General Education -- Not Applicable
**NMT.254 Nuclear Medicine Instrumentation 1**  
2  

The purpose of this course is to familiarize students with the characteristics and operating principles of radiation detection systems. The basic types of Nuclear Medicine equipment will be studied with emphasis on both counting and imaging statistics. The need for proper calibration and quality control will also be introduced. Admission to the Nuclear Medicine Technology program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**NMT.255 Nuclear Medicine Practicum 1**  
25  

This practicum course involves three days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. Assignments are made to enable students to begin achieving competency in performing nuclear medicine procedures. Admission to the Nuclear Medicine Technology program is required to enroll in this course.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

---

**NMT.260 Radiopharmacology**  
2  

This course covers the properties and preparation of radiopharmaceuticals used in Nuclear Medicine. Equipment calibration and quality control procedures are addressed in conjunction with regulations regarding the receiving, handling, storage, and disposal of radionuclides. Management of the radiopharmacy with accurate recordkeeping will also be stressed.

Offered: Spring

Prerequisites: NMT.250 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**NMT.262 Nuclear Medicine Procedures 2**  
3  

This course is a continuation of NMT 252 covering additional procedures performed in Nuclear Medicine departments. Clinical indications for performing each procedure will be discussed with emphasis on both the physiological and technical aspects of the examination. Normal and abnormal structure and function will again be emphasized through the presentation of case studies. Imaging studies such as CT and MRI will also be used for correlation.

Offered: Spring

Prerequisites: NMT.252 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

---

**NMT.264 Nuclear Medicine Instrumentation 2**  
2  

This course introduces the student to the more sophisticated aspects of Nuclear Medicine imaging. Computer processing techniques used for data manipulation as well as tomographic and 3-D image reconstruction will be addressed. Calibration techniques and quality assurance procedures will be covered in depth.

Offered: Spring

Prerequisites: NMT.254 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**NMT.265 Nuclear Medicine Practicum 2**  
25  

This practicum course involves three days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. Students will demonstrate competency in performing additional nuclear medicine procedures including analysis of counting statistics, image quality, and maintenance of quality assurance standards.

Offered: Spring

Prerequisites: NMT.255 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

---

**NMT.272 Adv Nuclear Med Procedures & Technique**  
4  

This 12-week summer course looks at recent trends, research, and technological advances in nuclear medicine. It covers selected in-vitro and non-imaging in-vivo procedures with emphasis on radioassay techniques. The course also examines image production and data acquisition methods associated with positron emission tomography (PET). Use of radionuclides in therapy will also be addressed.

Offered: Summer

Prerequisites: NMT.262 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**NMT.275 Nuclear Medicine Practicum 3**  
25  

This summer practicum course involves four days per week of clinical experience in affiliate hospitals, clinics, and/or imaging centers. This final rotation provides students with the opportunity to further refine their skills and complete all clinical competency requirements.

Offered: Summer

Prerequisites: NMT.265 with a grade of C or better

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AGS and Certificates where applicable.

General Education -- Not Applicable

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**NUA Nursing Assistant**
Courses

NUA.100 Basic Nursing Assistant Training 6 3 7.5

This course is approved by the Illinois Department of Public Health (IDPH) to prepare the student to assist the registered professional nurse and licensed practical nurse as an integral member of the health care team in a variety of health care settings. Instruction includes basic nursing skills through lecture, clinical simulation and supervised clinical experiences at a long-term health care facility. All individuals applying for certification must complete a criminal background check. Criminal background check applications will be provided to students during class. Upon successful completion of the program the individual is eligible to take the State of Illinois Nursing Assistant Competency Examination.

Offered: As Needed

Prerequisites: Completion of COMPASS test with a minimum Reading score of 63, or RDG.096 with a grade of C or better, or ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

NUP Nursing - Practical

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<td>Disc</td>
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Courses

NUP.104 LPN IV Certification 2 3 3

This class prepares students for initiating and/or maintaining common intravenous therapies. LPN IV Certification is a way for licensed nurses to gain additional experience. Students will learn about the principles and practices, insertion techniques, equipment, infusion calculation rates, management guidelines, principles of antibiotic administration and preventative measures for IV therapy in stabilized clients under the supervision of a registered nurse, physician, or dentist, or as approved by the Illinois Nurse Practice Act guidelines. Licensed as an LPN in good standing with IDFPR (Illinois Department of Professional Regulation) is required to enroll in this course.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

NUP.105 Introduction to Practical Nursing 6 9 9

This course presents the specific role of the Licensed Practical Nurse as well as the many facets of the profession of nursing in theoretical instruction and clinical practice. Basic theoretical concepts presented serve as the focus from which critical thinking and decision-making capabilities will evolve. The fundamental elements of nursing care will be covered, including: effective communication, the nursing process, multiculturalism, health and wellness, physiologic balance, ethical and legal concepts, Illinois Nurse Practice Act, pharmacological concepts, and complementary/alternative therapies. Content and learning will be reinforced in the clinical simulation lab and the clinical setting. Satisfactory (S) performance in clinical and the clinical campus lab and a minimum grade of C in theory are required in order to pass the course. Admission to the Practical Nursing program and placement on the Illinois Health Care Worker Registry in good standing by end of fall semester is required to enroll.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

NUP.125 Nurse Care-Ind Health Problems 6 12 10

This course builds on concepts, skills, and theories learned in NUP 105 and includes care of the client with selected common health problems in the acute and long term health care setting utilizing the nursing process. Medication dose calculations and administration, pre and post-operative care, fluid and electrolyte management, infectious disease, physical assessment, pain management strategies, diagnostic tests and common pathologies of the cardiovascular, respiratory, gastrointestinal, genitourinary, endocrine, hematological and immunological, and musculoskeletal systems will receive primary focus in the theoretical, skills laboratory and clinical setting. Health care needs of women and children, including family health promotion, issues and problems influencing family and childcare, newborn and pediatric standards, and common childhood pathologies will be explored. A basic understanding of the care of individuals experiencing mental health deviation will be included. Focus on the application of previously mastered physical care skill sets and critical thought concepts in conjunction with therapeutic communication will continue to develop. Satisfactory (S) performance in clinical and the clinical practice laboratory and a minimum grade of C in theory are required in order to pass the course.

Offered: Spring

Prerequisites: NUP.105 and BIO.111 or BIO.211 with a grade of C or better. Must be in good standing on the Illinois Health Care Workder Registry.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS AGS and Certificates where applicable.

General Education -- Not Applicable
NUT.130 Transitional Issues  1  6  3

Transitional Issues assists the student in the final course of the Practical Nursing Program to make the transition from student to effective practice at the entry level. Employment considerations will be examined in relation to a rapidly changing health care delivery system. The Illinois Nurse Practice Act will be studied as it relates to the Practical Nurse. The clinical component of this course allows the student to practice clinical skills while caring for a group of clients. Satisfactory (S) performance in clinical and a minimum grade of C in theory are required in order to pass the course.

Offered: Summer
Prerequisites: NUP.125 and required corequisites with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

NUT Nutrition

Courses

NUT.100 Introduction to Nutrition  2  2

This course is intended to introduce students to basic knowledge of nutritional information. Included are the basic principles of nutrients, human body requirements, healthy food sources, cultural and social effects of food choices, and the basics of metabolism.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

NUT.110 Nutrition  3  3

This course is designed to introduce the student to the concepts and principles of nutrition emphasizing the role of nutrition in health while being able to identify food nutrients and their functions. Cultural, religious and geographical influences are discussed. Emphasis on current dietary recommendations for maximizing well-being and minimizing risk of chronic disease, focus on use of tables, food guides, and guidelines for making healthy food choices is integrated. Discussion also includes nutrition needs for stages of the lifecycle, methods for evaluating creditability of nutrition claims, safe and economic use of supplements, principles of energy balance, basic elements of food safety, diet for exercise and sports. One year of high school chemistry or biology or equivalent is required.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

OMS Organizational Management

Courses

OMS.101 Labor-Management Relations  3  3

This course provides a basic examination of the roles of labor and management in the United States and their relationship to each other. The objectives, issues and problems of labor and management are studied through an analysis of collective bargaining clauses and the bargaining processes. Union growth, structure, management organization, labor-management legislation, wage structure and wage incentives are considered. Also covered are aspects of contract administration, as well as labor-management relations in a non-union environment. Community resource speakers are utilized.

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

OMS.102 Supervision Fundamentals  3  3

This course is intended for persons who desire to become supervisors and those who are currently in supervisory positions, but wish to improve their performance. It will provide a basic knowledge of the duties and responsibilities common to various types of supervisory jobs and how to avoid common mistakes of supervisors. Leadership skills will be discussed along with suggestions on the development of leadership qualities. Basic concepts of organization, management and planning as well as organizing work, directing work, and improving work methods will be studied. Evaluation of worker performance, along with teaching supervisors how to instruct workers will be covered. Some attention will be given to developing good public relations.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

OMS.200 Human Resources Management  3  3

This course focuses on recruitment and personnel planning; employment, placement, compensation, and benefits; training and development; employee and labor relations; health, safety, and security; and personnel management in the global community.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

OSP Occupational Special Problems
Courses

**OSP.199 Occupational Special Prob**

This course is intended for the student who has satisfactorily completed all, or most of, the specialized course work in a particular CSC occupational program and desires to investigate a special problem for further learning in that area of study. The identification of the problem, determination of nature of result(s) to be achieved, design of problem solving approach, nature of report or finished product and commitment for supervision must be worked out between the student and a particular faculty member. The project proposal is then subject to approval by the Dean of Occupational Programs and Vice President of Instructional Services. If the proposal is approved, the student then must register for the course in the Admissions and Records Office. The course description title entered on the registration and transcript will reflect the topic of that specific special problem. A student may earn a maximum of four semester hours of credit in OSP 199.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

PHL Philosophy

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<td>PHL.100 Logic</td>
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This course provides an introduction to the techniques of analyzing and clarifying arguments, and distinguishing good reasoning from bad. The emphasis is on informal fallacy logic as applied to social issues. This course is recommended for anyone desiring a course in practical logic and critical thinking. It is particularly useful for the student of English, Speech or Pre Law.

Offered: Fall or as Needed

Prerequisites: ENG.101

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. H4 906*

General Education -- Humanities

**PHL.101 Introduction to Philosophy**

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<td>PHL.101 Introduction to Philosophy</td>
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This course is for the student who questions or has an interest in the assumptions on which many decisions, values and purposes of institutions and society rest. The course deals with major philosophical problems, such as reality and does one's view of reality make any difference. Knowledge and various ways of knowing will be studied as well as the conflict between those who believe in free will and those who believe in determinism.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. H4 900*

General Education -- Humanities

**PHL.102 Ethics**

This course is for students who want to become more aware of the standards or principles which are appealed to when they judge themselves or when others are judged. Different moral positions that have been adopted by serious philosophers are discussed and applied to such topics as represssiion control, art, religion, political obligations and the role of government. Morality and different views of the nature of man as well as other interests and problems of man are studied.

Offered: Fall or Spring

Prerequisites: PHL.100 or PHL.101

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. H4 904*

General Education -- Humanities Human Relations

**PHL.103 Biomedical Ethics**

This course introduces the student to biomedical ethics. Students will gain a beginning foundation for analysis as related to biomedical ethical dilemmas. Apply classical ethical theories to related topics and issues, utilize basic principles of health care ethics to discuss bio-medical ethical topics and current issues and examination of bio-medical ethical issues using a problem-solving approach.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AAS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PHL.104 Philosophy of Religion**

This course will explore the big philosophical ideas that undergird western religious traditions. We will use contemporary and historical texts to explore key religious thoughts and suppositions. These ideas will be explored by employing the best techniques of critical inquiry and logical argumentation. Religious concepts to be explored will include but not be limited to; Arguments for the existence of God, the connection between reason and faith, religion and science, religion and ethics, and the problem of evil.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AFA, AAS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PHL.105 Comparative Religions**

This course will compare and contrast both eastern and western religions. These religions will be explored in light of their history, key internal workings, sacred writings, as well as issues of doctrine and practice.

Applicable towards graduation at Sandburg where program structure permits:

Degree or Certificate - AA, AS, AFA, AAS, AGS and Certificates where applicable.

General Education -- Not Applicable Elective Only
**PHL.110 Introduction Critical Thinking**  
3 3

This course provides practice in critical thinking, including value assessment and moral reasoning. Passages used in the course include social issues drawn from multi-cultural backgrounds. Students learn to discern the structure of an argument, definitional and descriptive assumptions, value conflicts, and assumptions, and to question and discuss those intelligently. The course is useful for entry-level thinking skills and in performing well in courses in the social sciences, humanities, and other disciplines.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PHY Physics**

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**PHY.110 Applied Physics**  
3 3

This course surveys various ideas in physics with an emphasis on problem solving and applications from many technical areas. Concepts studied include measurement, laws of motion, the resolution of forces, work and energy, simple machines, and properties of matter. Students must provide a hand-held scientific calculator.

Offered: Spring

Prerequisites: MAT.101

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- AGS Only

**PHY.130 The Physical Universe**  
3 3

This course is a study of the universe and the attempts of persons to understand it. Topics covered include techniques of investigation; instrumentation; organization and history of the solar system; birth, life, and death of a star; origin, history, and future of the universe; prospects for extraterrestrial life forms.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. P1 900L

General Education -- Not Applicable Elective Only

**PHY.151 General Physics 1**  
4 2 5

This course is the first semester of a two-semester sequence in pre-calculus based physics. It is appropriate for students in pre-dental, pre-medical, nursing, education, and other programs which require a beginning course in physics. The course includes the study of mechanics, vibratory motion and waves, fundamentals of heat and thermodynamics.

Offered: Fall

Prerequisites: MAT.140 or concurrent enrollment

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. P1 900L

General Education -- Science Lab Science

**PHY.152 General Physics 2**  
4 2 5

This course is a continuation of PHY 151. Topics covered include electricity and magnetism, electromagnetic waves, optics and an introduction to modern physics.

Offered: Spring

Prerequisites: PHY.151

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
IAI Course No. P1 900L

General Education -- Not Applicable Elective Only

**PHY.161 Engineering Physics 1**  
4 2 5

This course is the first of a two-semester sequence in calculus-based physics. Topics covered include classic mechanics, vibratory motion and mechanical waves, and fundamentals of heat and thermodynamics.

This course is appropriate for those students who want to transfer into engineering or other university programs that demand one year of calculus-based physics.

Offered: Fall

Prerequisites: MAT.240 or concurrent enrollment

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.  
IAI Course No. P1 900L

General Education -- Not Applicable Elective Only

**PHY.162 Engineering Physics 2**  
4 2 5

This course is a continuation of PHY 161. Topics covered include electricity and magnetism, electromagnetic waves, optics, and an introduction to modern physics. Students will use calculus principles and techniques in developing concepts, analyzing situations, and in further development of problem-solving techniques.

Offered: Spring

Prerequisites: PHY.161, MAT.241 or the equivalent as evaluated by the physics department

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**POS Political Science**
Courses

**POS.122 American Government & Politics**  
3  3

This course covers the origin, principles, organization and functions of the American political system. It examines the legislative, executive and judicial branches in the United States as well as the nature and purposes of the nation-state in a democratically oriented society. Topics covered include the Constitution, civil liberties and civil rights, the three branches of government, political parties, elections, and appropriate comparisons to Illinois Government. This course is of interest both to persons planning to pursue a baccalaureate degree and other persons interested in increasing their understanding of the American system of government.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. SS 900*

General Education -- Social Science

**POS.223 State & Local Government**  
3  3

This course presents a study of the institutions, functions, problems, and politics at the state and local levels of government in the United States. It meets the Illinois state law requirement concerning constitutional proficiency. The course is of interest to the student of political science and the social sciences. This course would also benefit those serving at various levels of state and local government.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. SS 902*

General Education -- Social Science

**POS.228 International Relations**  
3  3

This course surveys the factors determining the relations between nations including the history of international relations, the concepts of national power and national interests, and the processes of implementing foreign policy. This course is of relevance to the student of political science or the social sciences or anyone interested in the study of world politics.

Offered: Spring

Prerequisites: POS.122

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. SS 904N*

General Education -- Social Science

**PSY Psychology**

**PSY.100 Freshman Orientation**  
1  1

This course is designed to aid the new student in adapting to the college environment by explaining policies and procedures regarding registration, dropping and adding of classes, and counseling services.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. *IAI Course No. SS 900*

General Education -- Not Applicable Elective Only

**PSY.101 Introduction to Psychology**  
3  3

This course is designed to provide an understanding of a variety of topics within the field of psychology. It is not only designed for students planning on majoring in psychology, but for those who have an interest in the scientific basis of behavior, thought, and the physiological processes that underlie each.

Offered: Fall or Spring or Summer

Prerequisites: A COMPASS Reading score of 83 or above is required to enroll in this course, or RDG.096 with a grade of C or better or an ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. *IAI Course No. SS 900*

General Education -- Social Science
**PSY.107 Positive Psychology**  3  3

Positive Psychology will encourage students to develop their potentials through research-based applications found in the areas of resiliency, adjustment, and positive emotions. This course will provide insights into strength-based behaviors by examining biological, psychological and sociocultural origins.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits: AA, AS, AAS AGS and Certificates where applicable.

General Education -- Elective Only Non Course

**PSY.151 Occupational Search & Development**  3  3

This course is designed to heighten the student's level of self-awareness through the completion of a variety of psychological instruments and self-awareness exercises intended to clarify the student's values, interests, and personality characteristics. The insight gleaned from these experiences will be applied toward the process of making a well-informed career decision and toward the process of marketing one's self in a competitive job market. Students will become acquainted with a variety of sources and techniques for occupational research and decision making, in addition to learning how to prepare a professional resume and cover letter. Interviewing techniques, job networking skills, and the process of life-long career development will be explored as well.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PSY.202 Psychology of Personality**  3  3

This course offers a study of the major problems, concepts and formulations of personality. It will include development and structure of personality, including such topics as adjustment, social adequacy, work environments, aggression, prejudice and other behaviors.

Offered: As Needed

Prerequisites: A COMPASS Reading score of 83 or above is required to enroll in this course, or RDG.096 with a grade of C or better, or an ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PSY.204 Social Psychology**  3  3

Social Psychology is the scientific study of the way in which people's thoughts, feelings, and behaviors are influenced by the real or imagined presence of other people. This course will be composed of four sections: (1) Introduction to Social Psychology and Social Psychological Methods, (2) Understanding Ourselves, (3) Social Influence, and (4) Social Interaction. This course is of value to students who have an interest in the mutual influence of groups on the individual and of the individual on groups.

Offered: Fall or Spring

Prerequisites: A COMPASS Reading score of 83 or above is required to enroll in this course, or RDG.096 with a grade of C or better, or an ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. SS 900

General Education -- Social Science Human Relations

**PSY.205 Human Sexuality**  3  3

This course is designed to provide the student with knowledge about the psychological, sociological and biological aspects of human sexuality; understand varieties of sexual expression and provide a cognitive base on which to make sexual decisions.

Offered: As Needed

Prerequisites: A COMPASS Reading score of 83 or above, or RDG.096 with a minimum grade of C, or an ACT Reading score of 20 or higher.

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**PSY.206 The Social Psychology of Aging**  3  3

This course provides an introduction to the field of social gerontology. The course deals with the adult life cycle from the sociological and psychological perspective with special emphasis on the later stages of adulthood. Special topics on aging include theoretical approaches to social aging, the biological and psychological aspects of aging, work, retirement and leisure, institutionalization, and death and dying.

Offered: As Needed

Prerequisites: PSY.101 or SOC.101

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. SS 905

General Education -- Social Science
This course is an overall introduction to crisis intervention and is designed to provide an understanding of theory and practice of short term models of treatment. A wide variety of crises will be examined and role played so students can become comfortable with different intervention techniques. Example crises will include suicide, developmental life stage, loss, medical, and post traumatic stress victims. Students will understand the professional and ethical side of crisis intervention along with developing an appreciation for the importance of cultural sensitivity in crisis intervention. Crisis intervention is designed as a university studies course, but is also applicable to those pursuing careers in allied health, criminal justice, education, fire science, etc.

Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

This course is a study of human development from conception through adolescence. It consists of research methods, data, and developmental theories in and between all major areas of development including biological, social, emotional, and cognitive. This course is useful to students who will interact with children and/or adolescents in professional and personal settings. It is appropriate for parents as well as persons in educational, behavioral, and social sciences.

Offered: As Needed
Prerequisites: A COMPASS Reading score of 83 or above is required to enroll in this course, or RDG.096 with a grade of C or better, or an ACT Reading score of 20 or higher.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Social Science Non Course

This course is a study of the development of human beings over the entire lifespan. It begins with an overview of developmental theories and then traces the individual from conception through infancy, childhood, adolescence, adulthood, aging, and death.

Offered: As Needed
Prerequisites: PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. S6 902
General Education -- Social Science

Abnormal Psychology will introduce students to behavioral disorders and research methods used in the field. This course will provide insight into abnormal behavior by examining biological, psychosocial, and sociocultural origins. Students will also learn about assessment, categorization, and treatment options for disorders, in addition to preventative measures.

Offered: Fall or Spring or Summer
Prerequisites: Take PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

This course is a study of the development of human beings over the entire lifespan. It begins with an overview of developmental theories and then traces the individual from conception through infancy, childhood, adolescence, adulthood, aging, and death.

Offered: As Needed
Prerequisites: PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Social Science Non Course

This course is a study of the development of human beings over the entire lifespan. It begins with an overview of developmental theories and then traces the individual from conception through infancy, childhood, adolescence, adulthood, aging, and death.

Offered: As Needed
Prerequisites: PSY.101
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.
General Education -- Social Science Non Course
RDG.096 College Survival Skills  3  3

This course is designed for those students who are apprehensive about or expect to have difficulty with college-level course work. This course will cover the basic college survival skills: reading and understanding college-level materials, organizing time, taking notes, studying for and taking tests, etc. This course will also concentrate on critical thinking and reading skills. Placement in RDG 096 is based upon the Reading Skills section of the COMPASS test.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable

RDG.097 College Survival Skills  3  3

This course is designed for those students who are apprehensive about or expect to have difficulty with college-level course work. This course will cover the basic college survival skills: reading and understanding college-level materials, organizing time, taking notes, studying for and taking tests, etc. This course will also concentrate on critical thinking and reading skills. Placement in RDG 097 is based upon the Reading Skills section of the TABE test.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: Not Applicable.
General Education -- Not Applicable

RDG.120 Strategies for Success in College  3  3

This course will introduce students to strategies that promote success in college. Students will explore internal factors that influence success in college, including learning styles, educational objectives and personal expectations. External factors, including locus of control and generational influences will also be explored. Students will also be introduced to the specific skill sets necessary for success in college, including time-management skills, critical thinking and reading skills, test-taking skills, goal-setting skills and problem solving skills. Students will also be introduced to college resources when appropriate.

Offered: Fall or Spring
Prerequisites: A COMPASS Reading score of 83 or higher or completion of RDG.096 with a grade of C or better, or an ACT Reading score of 20 or higher.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

Courses

RDT.100 Introduction to Radiologic Technology  3  3

This introductory course provides the student with general information about the profession of Radiologic Technology and introduces basic radiographic imaging principles and radiation protection. Special emphasis is also placed on medical ethics and professional conduct. Admission to the Radiologic Technology program is required to enroll in this course.

Offered: Spring
Prerequisites: Admission to Radiologic Technology program
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

RDT.101 Radiologic Technology Procedures 1  2  2  3

This course is designed to provide a knowledge base necessary to perform standard radiographic procedures. Content includes basic anatomy and positioning for examinations of the chest and abdomen, safe and proper use of x-ray equipment, and correct methods of handling and processing radiographic images. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course. Admission to the Radiologic Technology program is required to enroll in this course.

Offered: Summer
Prerequisites: Admission to the Radiologic Technology program
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

RDT.110 Rad Tech Physics & Instrumentation 1  3  3

This course gives the student an understanding of physics concepts which are fundamental to the profession. Subjects covered include: atomic structure; matter vs. energy; principles of electricity; x-ray production, control and management; and interactions of radiation with matter. Admission to the Radiologic Technology program is required to enroll in this course.

Offered: Fall
Prerequisites: Admission to Radiologic Technology program and RDT.100, RDT.101 and ALH.105
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

RDT Radiologic Technology

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Carl Sandburg College
RDT.111 Radiologic Technology Procedures 2  3  3  4.5
Content is designed to provide a knowledge base necessary to perform standard radiographic procedures. This course includes basic anatomy and positioning for examinations of the abdomen, shoulder girdle, upper and lower extremity, pelvic girdle and lumbar spine. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.
Offered: Fall
Prerequisites: RDT.100, RDT.101 and ALH.105
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

RDT.121 Radiologic Technology Procedures 3  3  3  4.5
Content is designed to provide a knowledge base necessary to perform radiographic procedures. This course includes basic anatomy and positioning for examinations of the cervical and thoracic spine, bony thorax, the gastrointestinal tract, the biliary system and the genitourinary system with emphasis on related pharmacology, equipment, and image analysis. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course.
Offered: Spring
Prerequisites: Admission to the Radiologic Technology program and ALH.105, RDT.100, RDT.101, RDT.110, RDT.111, and RDT.115
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

RDT.115 Radiologic Technology Practicum 1  17.5  3.5
This first course in clinical practice involves an average of 17.5 hours/week in the Radiology department of one of the affiliate hospitals. Emphasis is placed on patient contact as students are instructed and supervised in the performance of actual x-ray examinations of the extremities, chest, and pelvis. Attention is also directed toward the organization of the radiology department-examination priorities, patient preparation, processing of x-ray orders, etc. Admission to the Radiologic Technology program is required to enroll in this course.
Offered: Fall
Prerequisites: Admission to Radiologic Technology program
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

RDT.123 Principles of Radiologic Technology 3  3
This course is designed to provide a knowledge base in factors that govern the production and recording of radiographic images. The properties of density, contrast, detail and distortion are analyzed extensively with emphasis on the factors that control and influence them. Other topics include: collimation, filtration, grid usage, and exposure factor formulation.
Offered: Spring
Prerequisites: ALH.105, RDT.100, RDT.101, RDT.110, RDT.111, and RDT.115
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

RDT.120 Rad Tech Physics and Instrumentation 3  3
This course presents a detailed study of the technology used in acquiring, displaying and managing diagnostic images. Content is designed to establish a knowledge base in digital and analog image processing. Also discussed are image-intensified fluoroscopic, automatic exposure control and tomographic equipment requirements and design, as well as quality control and quality assurance.
Offered: Spring
Prerequisites: Admission to the Radiologic Technology program and ALH.105, RDT.100, RDT.101, RDT.110, RDT.111, and RDT.115
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

RDT.125 Radiologic Technology Practicum 2  17.5  3.5
This second clinical practicum involves an average of 17.5 hours/week in the Radiology department of one of the affiliate hospitals. This course stresses the development of competency in performing general examinations and basic fluoroscopic procedures. Students will also begin to develop a better understanding of the factors that influence radiographic quality as they apply the exposure principles learned in their theory courses. Admission to the Radiologic Technology program is required to enroll in this course.
Offered: Spring
Prerequisites: ALH.105, RDT.100, RDT.101, RDT.110, RDT.111, and RDT.115
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
**RDT.201 Radiologic Technology Procedures 4**  
1 2 2.5

This course is designed to provide a knowledge base necessary to perform standard radiographic procedures. Content includes basic anatomy and positioning for examinations of the skull and facial bones. Consideration will be given to the production of radiographs of optimal diagnostic quality. Laboratory experience will be used to complement the didactic portion of the course. Radiation therapy will be explored with an emphasis on basic principles of operation and general procedural considerations.

Offered: Summer
Prerequisites: RDT.100 RDT.101 RDT.110 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 ALH.105
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.205 Radiologic Technology Practicum 3**  
20 4

This third course in clinical practice involves an average of 32 hours/week in the Radiology department of one of the affiliate hospitals for 10 weeks. Students will rotate through all areas of the Radiology Department this semester. A brief affiliation with the InterCommunity Cancer Center is incorporated into this course to enable students to observe patients receiving radiation therapy.

Offered: Summer
Prerequisites: Admission to Radiologic Technology program
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.211 Advanced Radiologic Technology Procedure**  
3 3

This course presents basic concepts of pharmacology, venipuncture and administration of diagnostic contrast agents and intravenous medications with appropriate delivery of patient care. Content is also designed to provide an introduction to the basic principles and operation of computed tomography equipment. Cross-sectional anatomy will be introduced along with an exploration of other medical imaging modalities.

Offered: Fall
Prerequisites: ALH.105 RDT.100 RDT.101 RDT.110 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 RDT.201 RDT.205
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.212 Radiologic Technology Image Critique**  
3 3

This course provides a basis for analyzing radiographic images. Included are the importance of optimal imaging standards, discussion of problem-solving techniques for image evaluation, and the factors that can affect image quality. Concepts related to disease and etiological considerations with emphasis on radiographic appearance of disease and impact on exposure factor selection will also be introduced. Actual images will be included for analysis.

Offered: Fall
Prerequisites: ALH.105 RDT.100 RDT.101 RDT.110 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 RDT.201 RDT.205
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.215 Radiologic Technology Practicum 4**  
25 5

This fourth Practicum involves an average of 25 hours per week of clinical experience. Emphasis is placed on developing competency in the performance of both general and special radiographic procedures.

Offered: Fall
Prerequisites: ALH.105 RDT.100 RDT.101 RDT.110 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 RDT.201 RDT.205
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.220 Radiologic Technology Capstone**  
3 3

Course designed to re-examine knowledge, skills and attitudes required of the radiographer. Students will create learning portfolio and practice resume writing and interviewing skills. Students will also prepare for AART Registry Examination through use of review modules and practice examinations.

Offered: Spring
Prerequisites: ALH.105 RDT.100 RDT.101 RDT.110 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 RDT.201 RDT.205 RDT.211
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**RDT.222 Radiation Biology**  
2 2

This course focuses on the biological effects of radiation including radiosensitivity and the factors influencing it. Risks vs. benefits of the use of radiation will be analyzed from the patient and operator standpoint. Additional topics discussed will include the various methods employed to minimize exposure to both radiation quantities & units and computer & digital imaging considerations along with understanding regulatory standards and recommendations. Admission to the Radiologic Technology program is required to enroll in this course.

Offered: Spring
Prerequisites: RDT.210 & RDT.215 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate - AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
RDT.225 Radiologic Technology Practicum 5  
This final practicum course stresses the refinement of the students’ clinical skills. All competency requirements must be fulfilled by the end of the semester. The clinical instructor at each hospital will be working closely with students in order to correlate their assignments with their competency requirement needs. A weekly seminar is conducted in addition to the assigned clinical hours during the second eight weeks of the course. Admission to the Radiologic Technology program is required to enroll in this course. 
Offered: Spring 
Prerequisites: Take ALH.105 RDT.100 RDT.111 RDT.115 RDT.120 RDT.121 RDT.123 RDT.125 RDT.201 RDT.205 RDT.211 Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RDT.250 CT Principles & Instrumentation 3 3 
This course presents the foundations of CT image formation including data acquisition and subsequent image processing, recording, and archiving methods. The diagnostic quality of images obtained using various types of CT equipment will be emphasized along with considerations related to patient exposure dose. Admission to the Computed Tomography program is required to enroll in this course. 
Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate -AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RDT.252 Computed Tomography Procedures 4 4 
This course introduces the radiographer to computed tomography imaging procedures. Patient care and scanning protocols for examination of the abdomen and pelvis, chest, head, neck, spine, and musculoskeletal system will be covered. Common abnormalities demonstrated by CT will also be discussed. Admission to the Computed Tomography program is required to enroll in this course. 
Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RDT.255 CT Practicum 1 25 6 
This practicum course involves three days per week of clinical experience in affiliate hospitals and/or imaging centers. Assignments are made to enable students to achieve competency in performing computed tomography procedures and in evaluating equipment operation. Course includes clinical seminars. Admission to the Computed Tomography program is required to enroll in this course. 
Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RDT.262 Sectional Anatomy for Diagnostic Imaging 3 3 
This course is a study of sectional anatomy as demonstrated in the transverse, sagittal, and coronal planes. The use of both abstract diagrams and actual photographs of cadaver sections provide students with an understanding of the spatial relationships within the human body. CT, MRI, and/or ultrasound images are also used to supplement instruction. 
Offered: Fall or Spring or Summer 
Prerequisites: BIO.205 or equivalent 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RRT Rail Operations

Courses

RRT.101 History of Railroading 3 3 
This course covers the history and traditions of railroading and the industry’s role in North American economic development. Upon successful completion of this course, students will be able to list and explain the significance of major events in North American railroading. 
Offered: Fall 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RRT.102 Railroad Tech Careers 3 3 
The course includes information about technical careers in railroading, enabling students to choose suitable career paths. This course includes field trips that will demonstrate the relationships among technical work groups in day-to-day railroad operations. Upon successful completion of this course students should be able to describe basic technical job functions, requirements, and characteristics. 
Offered: Spring 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable

RRT.135 Basic Electro Motive Diesel Mechanical 3 3 
This is the first in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the basic operation, maintenance, repair requirements, and trouble shooting for EMD diesel engines and support systems. 
Offered: Fall or Spring 
Applicable toward graduation at Sandburg where program structure permits: Degree or Certificate - AAS, AGS and Certificates where applicable. General Education -- Not Applicable
**RRT.136 Basic Ge Mechanical** 3 3

This is the second in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and troubleshooting for GE diesel engines and support systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.137 Locomotive Air Brakes** 3 3

This is the third in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the operation, testing, maintenance, and troubleshooting for 26L and 30 ACDW locomotive air brake systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.138 Locomotive FRA** 3 3

This is the fourth in a series of four courses in Locomotive Mechanics. This course is designed to introduce the student to the federal Railway Administration and Department of Transportation Code of Federal Regulations Title 49, Parts 209, 218, 229, 231, and 232.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.142 Locomotive Electricity** 3 3

This is the second in a series of four courses in Locomotive Electrical. This course is designed to introduce the student to the operation, maintenance, and troubleshooting of EMD Low Horsepower locomotive electrical systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate - AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.143 Low Horsepower Electrical** 3 3

This is the third in a series of four courses in Locomotive Electrical. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and troubleshooting of EMD diesel engines and support systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.144 EMD Basic Electrical** 3 3

This is the third in a series of four courses in Locomotive Electrical. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and troubleshooting of EMD diesel engines and support systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable

**RRT.145 GE Dash 8/9 Electrical System** 3 3

This is one in a series of four courses in the Locomotive Electrical certificate program. This course is designed to introduce the student to the basic operation, maintenance, repair requirements and troubleshooting of GE Dahs 8/9 locomotive systems.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.201 Railroad Operations** 3 3

This course includes information about the industry, its major assets, structure, and typical operations. Upon successful completion of this course, students will be able to define the current North American railroading industry characteristics, basic operations components and processes, and industry structure and administrative processes.

Offered: Fall

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**RRT.202 Railroad Safe-Qty-Envirn** 3 3

This course covers the importance of safety, quality, personal health, and environmental awareness to the railroad industry and emphasizes the basic tools and techniques for improving these conditions on the job. Upon successful completion of this course, students should be able to define and explain the needs for improved safety, quality, health, and environmental awareness; describe their basic principles; explain the elements of successful programs, and apply these elements to typical tasks on the job.

Offered: Spring

Applicable toward graduation at Sandburg where program structure permits:

Degree or Certificate: AAS, AGS and Certificates where applicable.

General Education -- Not Applicable

**SOC Sociology**

Hr/Wk Lect/Lab Sem

Hr/Wk Disc Lab Hr
Courses

**SOC.101 Introduction to Sociology**  
3 3

The purpose of this course is to acquaint the student with the discipline of sociology as it applies to contemporary American society. This course provides an orientation to the student interested in social science or the helping professions. Among specific topics to be studied are: how the sociologist gathers information, the importance of culture and symbols, personality development, the changing structure of the family, social class and inequality, race and ethnicity, and deviant behavior.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S7 900

General Education -- Social Science Human Relations

**SOC.102 Contemporary Social Problems**  
3 3

The goal of this course is to focus the student's attention on problems and to provide a basis for thinking sociologically about those problems. The course is designed for the social science major as well as the student who wants a greater understanding of our complex society. Among the topics to be covered are the concept of a social problem, poverty and inequality, the changing family, crime and delinquency, the abuse of alcohol and drugs, and social regulation of sexual behavior.

Offered: Spring

Prerequisites: SOC.101

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S7 901

General Education -- Social Science Human Relations

**SOC.103 Marriage and the Family**  
3 3

This course should be of interest to any student who is married or contemplating marriage. It examines the family as a social institution in modern America. The course will enable the student to recognize and scrutinize his/her personal values toward marriage and family life. Topics to be considered include discussions of the concept of love, choosing a mate, marital communications, dealing with marital conflict, parenting, sexual behavior and responsibility, and divorce. Students planning to transfer this course toward a bachelor's degree can expect it to be accepted by most four-year colleges as an elective rather than as applicable toward a major in sociology.

Offered: Fall or Spring

Prerequisites: SOC.101

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S7 902

General Education -- Social Science Human Relations

**SOC.105 Intro to Cultural Anthropology**  
3 3

This course will be an overview of the discipline of cultural anthropology, introducing the student to diverse cultural forms around the globe through a variety of media and ethnographic materials. The media and ethnographic materials used will demonstrate how and why humans in different cultures have developed different solutions to the same problems. The student will be exposed to a variety of techniques which will assist the student in learning the social organization, technology, economic structures, religious belief systems and language of both past and present diverse cultures. The students will explore major theories, and concepts used to understand why humans behave as they do and the relationships that may exist between diverse societies.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S1 901N

General Education -- Social Science Human Relations

**SOC.201 Introduction to Anthropology**  
3 3

The goal of this course is to introduce the study of general anthropology to students who have little acquaintance with the subject. This course will provide the student with knowledge of anthropology and how anthropology contributes to the scientific understanding of people. This course is of interest to the social science major as well as those people who are looking for an elective course. Some of the topics to be covered include human and primate evolution, the emergence of human culture, and the rise of urban society, the evolution of language, kinship and descent, and cultural diversity within the modern world.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S1 900N

General Education -- Social Science Human Relations

**SOC.203 Introduction to Diversity**  
3 3

This course helps students come to know people from various ethnic/racial, religious, and cultural groups that make up the American population. Issues concerning racism, age, gender, and sexual orientation are examined.

Offered: Fall or Spring or Summer

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.  
IAI Course No. S7 903D

General Education -- Social Science Human Relations
**General Education -- Not Applicable Elective Only Human Relations**

This course will provide a values-based approach to ethical professionalism and present the student with the tools to think about and deal with ethical issues in the work place. The course will examine through discussion the concepts of what a professional is and what it means to act professionally. It will include knowledge-based discussions of the features of moral reasoning and review case studies and scenarios that will facilitate the student's ability to construct methods of resolution when dealing with ethical issues of the work place. The course will cover in depth moral reasoning and ethical theories central to the moral life of any professional.

Offered: Fall or as Needed
Prerequisites: ENG.101 or concurrent enrollment
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**SOC.260 Gender & Society**

3  3

Students in the course will examine gender theory, the historical and societal changes regarding gender roles, the interaction of gender and social structures, and the relationship of gender and social institutions within the United States. Students will also be given the opportunity to consider the similarities and differences of gender from a global, multicultural perspective.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Social Science Human Relations

**SPE Speech**

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**SPE.110 Interpersonal Communication**

This course attempts to develop an awareness of, and an insight into, the choices that are made by participation in face-to-face, non-public, human communication. The text and lectures are designed to create an understanding of theories and principles. Experiential exercises encourage the student to apply this understanding, and to use it in interpreting his/her own and other people's attempts at communication. Among the topics covered are the communication process, the self as a communicator, verbal and nonverbal language, cooperation and conflict, etc. This course is intended for persons planning to pursue a baccalaureate degree and those who desire to improve their verbal communication.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only Human Relations

**SPE.120 Introduction to Public Speaking**

This is a performance course in public speaking. The principles of oral public communication will be presented through readings and lecture. The student will apply these principles in the speeches presented to the class. Emphasis will be placed on outlining and the discovery and organization of important ideas and the communication of those ideas to a specific audience. Written evaluation of speeches will be required to enhance critical communication skills. This course is intended for individuals who desire to complete a bachelor's degree and those who desire to develop competence in public speaking.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. CZ 900

General Education -- Communications

**SPE.200 Group Discussion**

3  3

This course is concerned with the processes and practices of decision-making in small groups (committees, boards, social groups, etc.). The course will consider such topics as group characteristics, role behaviors, problem-solving process, leadership, conflict and cooperation. It is intended for students who intend to transfer and those who desire to improve their group process skills.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**SPE.220 Advanced Public Speaking**

This is a performance course in public speaking. The principles of oral public communication will be presented through readings and lecture. The student will apply these principles in the speeches presented to the class. Emphasis will be placed on outlining and the discovery and organization of important ideas and the communication of those ideas to a specific audience. Written evaluation of speeches will be required to enhance critical communication skills. This course is intended for individuals who desire to complete a bachelor's degree and those who desire to develop competence in public speaking.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**SPE.230 Parliamentry Procedures**

1.5  1.5

This course will focus on the use of parliamentary procedures by members of decision-making groups. Robert's Rules of Order will be used as the authority. Students will be given the opportunity to understand the rationale of the procedures and to participate in practice sessions. This course is intended for individuals who desire this course as part of their baccalaureate studies and those who desire to develop group leadership skills for community group situations.

Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**SPN Spanish**
Courses

SPN.101 Elementary Spanish 1

This is the first sequence of a complete course at the college level of elementary Spanish. It will provide the fundamentals for transfer credit or a study of basic Spanish grammar and vocabulary. This course will also introduce students to the culture and customs of Spanish-speaking people.

Offered: Fall or Spring
Prerequisites: COMPASS Writing score of 70 or ENG.098 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

SPN.102 Elementary Spanish 2

This is the second sequence of a complete course at the college level of elementary Spanish. It will provide the fundamentals for transfer credit or a study of basic Spanish grammar and vocabulary. This course will also provide opportunities for students to continue their study of the culture and customs of Spanish-speaking people.

Offered: Fall or Spring
Prerequisites: SPN.101 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

SPN.120 Spanish for Professionals 1

This is the first sequence of a complete course at the college level of Spanish for professionals. It will provide the fundamentals of basic Spanish grammar and vocabulary with particular emphasis on the vocabulary related to the students' professions. This course will also introduce students to the culture and customs of Spanish-speaking people.

Offered: Fall or Spring
Prerequisites: SPN.120 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

SPN.121 Spanish for Professionals 2

This is the second sequence of a complete course at the college level of Spanish for professionals. It will provide the fundamentals of basic Spanish grammar and vocabulary with particular emphasis on the vocabulary related to the students' professions. This course will also introduce students to the culture and customs of Spanish-speaking people.

Offered: Fall or Spring
Prerequisites: SPN.120 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

SPN.201 Intermediate Spanish 1

This is the first sequence of a complete course at the college level of intermediate Spanish. It will provide the fundamentals for transfer credit or a continued study of Spanish grammar and vocabulary. This course will also include oral discussion, short writing exercises, selective readings and will further students' knowledge of the culture and customs of Spanish-speaking people.

Offered: Fall or Spring
Prerequisites: SPN.102 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

SPN.202 Intermediate Spanish 2

This is the second sequence of a complete course at the college level of intermediate Spanish. It will provide the fundamentals for transfer credit or a continued study of Spanish grammar and vocabulary. This course will also include oral discussion, short writing exercises, selective readings and will further students' knowledge of the culture and customs of Spanish-speaking people.

Offered: Spring
Prerequisites: SPN.201 with a grade of C or better
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable. *IAI Course No. H1 900*
General Education -- Humanities

SSC Social Science
Courses

**SSC.120 Statistics for Social Science** 3 3

This course introduces statistical methods through real-life problems as applicable in the social sciences. Students will have the opportunity to gather and analyze data. Commonly used statistical methods will be examined with discussion of descriptive and inferential methods. Topics include, but are not limited to, probability distributions, standard deviation, statistical inference, correlation and regression. Social science research is studied to determine necessary precision, interpretation skills and statistical procedures found in publications of both academic and applied research to help students critically interpret data. Qualitative and quantitative research studies will be critically evaluated. Statistical software is used to analyze data. This course is not intended for a mathematics major or minor. Students can take either SSC 120 or MAT 110, not both.

Offered: Spring or as Needed
Prerequisites: MAT.109 with a grade of C or better and one course in Social and Business Sciences

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

**SSC.201 Ethnic Studies** 3 3

This course is a study of the cultures of various ethnic groups. The intent is to develop an understanding of the multivalued nature of our society, with insight into the rewards and problems that cultural pluralism creates. The focus in the course may change from year to year, sometimes being on one or two ethnic groups, sometimes a more general survey. However, it is not to be taken more than once. The course is of interest to students preparing for vocations where such understandings may be of value, such as, teaching or social work, or anyone interested in understanding the variety of our society.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Math

**SSC.202 Perspectives of Social Science** 3 3

This course is designed to introduce students to research methods and theory bases used in the Social Sciences. The instructional approach is that of a seminar. The course will be built around a theme such as urban problems, land-man relationships or other themes which may be selected. The theme will vary from year to year; however, it is not to be taken more than once. Sophomore standing and 12 or more semester hours of credit in at least three social science subject areas are required to take this course.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**THE.110 Theatre Arts Appreciation** 3 3

This course examines the arts of the theatre, particularly acting, directing and set design. Also treated are the related topics of film and the development of the theatre including an historical account of the play as an artistic and literary form. This course will appeal to those who wish to gain greater knowledge of the things which go into the making of a theatrical production.

Offered: Fall or Spring

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. F1 907

General Education -- Fine Arts Human Relations

**THE.111 Theatre History** 3 3

Theatre History provides students an overview of theatre and its place in history from Ancient Greece to present. Students will examine majors texts and the social and cultural phenomena that influenced their writing. An analysis of theatre and performance practice will provide students an understanding of performance practice and its evolution.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable. IAI Course No. F1 908

General Education -- Fine Arts

**THE.120 Introduction to Acting** 3 3

This course is designed to supply the student with the basics of both the theory and practice of the art of acting. In addition to lectures and discussions, the individual student's work is appraised by the tutorial method and group critiques. This course should appeal to both those seriously interested in acting and those who would like to gain a working knowledge of what an actor does.

Offered: As Needed

Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS, and Certificates where applicable.

General Education -- Not Applicable Elective Only

**THE Theatre**
THE.121 Acting Workshop 1

This course provides the student a first opportunity for intensive practice in the methods of acting; i.e., character analysis and creation, movement and voice. The emphasis is on individual problems and approaches. The student's work is appraised by the tutorial method and group critique. This course should appeal to those with an interest in acting and planning to pursue a bachelor's degree as well as those who desire to develop acting competencies without the intent to pursue a baccalaureate degree.
Offered: As Needed
Prerequisites: THE.120
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

THE.130 Theatre Practice

The primary activity of this course is the production of a play. Students will work on two aspects of the play including on and off stage roles per their interests and the needs of the production. Students are expected to participate in rehearsals and production-week activities which may include evenings, weekends, and travel. May be repeated a maximum of three times. A student may count 4.5 semester hours toward graduation for THE.130.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

THE.140 Oral Interpretation

This course is concerned with the interpretation and performance of literature. Special attention is given to the analysis and interpretation of the ideas, attitudes and persona found in literary texts. Student work will culminate in a public performance.
Offered: As Needed
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AFA, AAS, AGS and Certificates where applicable.
General Education -- Not Applicable Elective Only

THE.150 Play Directing

This course is designed to teach the inexperienced director to make choices about scripts; script analysis; casting; focus of scenes; and the mood, rhythm, pace, and main idea of production. A practical course that includes attendance at plays, exercise work, and directing scenes.
Offered: As Needed
Prerequisites: THE.120 or acting experience
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AA, AS, AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only

TQM Total Quality Management

TQM.101 Total Quality Management

This is an introductory course in Total Quality Management (TQM). An in-depth study of TQM principles and practices will be covered which include: leadership, customer satisfaction, employee involvement, continuous process improvement, supplier partnership and performance measures. TQM techniques, such as SPC and ISO 9000, will be briefly discussed.
Offered: Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.100 Welding Theory OFC & OAW

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being cut and/or welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: . OFC, PAC, CAC-A and OAW processes, . Nomenclature specific to these processes, and . Safety, weld quality control, and other related welding information.
Offered: Fall or Spring
Prerequisites: COMPASS Writing score of 38 or ENG.098 with a grade of C or better, COMPASS Reading score of 70 or RDG.096 with a grade of C or better. WEL 102 and WEL 109 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
**WEL.101 Fundamentals of Welding Theory**  
2 2

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail. In addition, the course provides quality control data and reference material that is of high interest to welding personnel. The information is purely technical in nature and there is nothing included on actual welding technique. Areas of concentration will include welding processes and definitions, the shielded metal-arc (stick) welding process, the gas metal-arc (MIG) welding process, the gas tungsten-arc (TIG) welding process, the oxyacetylene (gas) welding process, weld quality control and other related welding information.

Offered: Fall
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.102 Metal Preparation**  
2 1

This course is designed to develop proficiency in metal preparation and cutting techniques. Emphasis will be placed upon oxyacetylene cutting, plasma cutting, and air arc welding processes.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.103 Welding Survey**  
.5 1.5 1

This course is designed to allow those who have an interest in the welding trade (but are not sure of the skills involved, the environment, or their abilities to meet the demands of this profession) an opportunity to sample a variety of the skills a student in welding would be exposed to. Areas of study would be determined in joint agreement with the student and the instructor. Areas of study could include a variety of arc skills, gas shielded skills and/or oxyacetylene skills.

Offered: Fall or Spring or Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.104 Welding Theory Basic SMAW**  
1 1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: SMAW process and advanced welding techniques, Nomenclature and definitions specific to this process, and Safety, weld quality control, and other related welding information.

Offered: Fall or Spring
Prerequisites: Take WEL.102 WEL.109; minimum grade C;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**WEL.105 Welding Theory Advanced SMAW**  
1 1

This course is a continuation of WEL.104 and provides a convenient source of know-how or information that is needed by all persons advancing in the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: * SMAW process and advanced welding techniques, * Nomenclature and definitions specific to this process, and * Safety, weld quality control, and other related welding information.

Offered: Fall or Spring
Prerequisites: Take WEL.111 and WEL.112 with a grade of C or better
WEL 114 and WEL 115 are corequisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**WEL.106 Welding Theory GTAW**  
1 1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: * GTAW process, * Nomenclature and definitions specific to this process, and * Safety, weld quality control, and other related welding information.

Offered: Fall or Spring
Prerequisites: Take WEL.114 and WEL.115 with a grade of C or better
WEL 116 and WEL 117 are corequisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable

**WEL.107 Welding Theory Basic GMAW**  
1 1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: GMAW process, Nomenclature and definitions specific to this process, and Safety, weld quality control, and other related welding information.

Offered: Fall or Spring
Prerequisites: Take WEL.100 WEL 102. WEL.109; minimum grade C;
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
**WEL.108 Welding Theory GMAW & FCAW**  
1 1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: * Advanced GMAW and FCAW processes, * Nomenclature and definitions specific to these processes, and * Safety, weld quality control, and other related welding information.

Offered: Fall or Spring
Prerequisites: Take WEL.107 WEL.118 and WEL.119 with grade of C or better. WEL.120 and WEL.129 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.109 Oxyacetylene Welding**  
2 1

This is a course designed to prepare the student for employment by developing basic welding skills and proficiency in the safe operation of the oxyacetylene welding process. The student will get extensive practice in gas welding and brazing on mild steels.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.110 Welding Theory/Applications**  
1 1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the projects being fabricated and welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: * Fabrication and layout. * Nomenclature and definitions specific to this process. * Safety, weld quality control and other related welding information.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.111 Arc Welding Basic 1**  
2 1

This course is designed to prepare the student for entry level employment as a production arc welding operator in the steel fabricating and machinery building industry. The student will develop proficiency in the safe operation of the manual metallic shielded arc welding processes to meet commercial quality standards and is devoted primarily to introductory skills, safety, proper techniques to use in the welding process, and blueprint reading.

Offered: Fall or Spring
Prerequisites: Take WEL.102 and WEL.109 with a grade of C or better.
WEL.104 and WEL.112 are co-requisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.112 Arc Welding Basic 2**  
2 1

As a continuation of WEL 111, Arc Welding Basic 1, this course is designed to prepare the student for entry level employment as a production arc welding operator in the steel fabricating and machinery building industry. The student will develop proficiency in the safe operation of manual metallic shielded arc welding processes to meet commercial quality standards and is devoted to welding mild steel in the downhand positions.

Offered: Fall or Spring
Prerequisites: Take WEL.102 and WEL.109 with a grade of C or better.
WEL.104 and WEL.111 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.113 Arc Welding Advanced 1**  
2 1

This is the first of two advanced courses designed to prepare the student for entry level employment as a production arc welding operator in the steel fabricating and machinery building industry. The student will develop proficiency in the safe operation of the manual metallic shielded arc welding processes to meet commercial quality standards.

Offered: Fall or Spring
Prerequisites: Take WEL.111, WEL.112 and WEL.104 grade of C or better.
WEL.105 and WEL.115 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.114 Arc Welding Advanced 2**  
2 1

As a continuation of WEL 114, Arc Welding Advanced 1, this course is designed to prepare students for entry level employment as production arc welding operators in the steel fabrication and machinery building industries. Students will develop proficiency in the safe operation of the manual metallic shielded arc welding processes in all positions to meet commercial quality standards.

Offered: Fall or Spring
Prerequisites: Take WEL.104, WEL.111 and WEL.112 with a grade of C or better.
WEL.105 and WEL.114 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

**WEL.116 Gas Shielded Arc-TIG 1**  
2 1

This course is designed to broaden the knowledge and skill of individuals who have already developed employment skills in arc welding. It is the first of two courses which offer students an opportunity to develop proficiency in the safe operation of the tungsten inert gas (TIG) welding process.

Offered: Fall or Spring
Prerequisites: Take WEL.105, WEL.114 and WEL.115 with a grade of C or better.
WEL.106 and WEL.117 are corequisites.
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
WEL.117 Gas Shielded Arc-TIG 2 2 1

As a continuation of WEL 116, Gas Shielded ARC/TIG 1, this course is designed to broaden the knowledge and skill of individuals who have already developed employment skills in arc welding. It is the second of two courses which offer students an opportunity to develop proficiency in the safe operation of the tungsten inert gas (TIG) welding process.
Offered: Fall or Spring
Prerequisites: Take WEL.105 WEL.114 and WEL.115 grade of C or better WEL.106 and WEL.116 are corequisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.118 Gas Shielded Arc-MIG 1 2 1

This is the first of two courses designed to develop proficiency in the safe operation of the metal inert gas (MIG) welding processes to commercial quality standards.
Offered: Fall or Spring
Prerequisites: Take WEL.106 WEL.116 and WEL.117 WEL.107 and WEL.119 are co-requisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.119 Gas Shielded Arc-MIG 2 2 1

As a continuation of WEL 118, Gas Shielded ARC/MIG 1, this is the second of two courses designed to continue to develop proficiency in the safe operation of the metal inert gas (MIG) welding processes to commercial quality standards.
Offered: Fall or Spring
Prerequisites: Take WEL.106 WEL.116 and WEL.117 WEL.107 and WEL.119 are co-requisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.120 Gas Shielded Applications 2 1

This course is designed to help prepare a person for employment by developing proficiency in the application of advanced skills in the gas shielded welding processes. The student will gain extensive practice in the proper techniques employed by trade and industry in the application of Gas shielded processes.
Offered: Fall or Spring
Prerequisites: Take WEL.107 WEL.118 and WEL.119 grade of C or better WEL.108 and WEL.129 are co-requisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.121 Application Welding 1 2 1

This is the first of two courses designed for students to utilize their welding abilities to demonstrate comprehension of skills and knowledge. It provides the student with experience in the four welding positions - flat, horizontal, vertical, and overhead - using various welding procedures and related equipment. Emphasis will be on welding strength, multibead welding and fabrication.
Offered: Fall or Spring
Prerequisites: Take WEL.106 WEL.116 and WEL.117 WEL.107 and WEL.118 are corequisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.122 Application Welding 2 2 1

A continuation of WEL 121, Application Welding 1, this course is considered to be one of the final courses that a welding student enrolls in, as it utilizes skills gained from a number of previously completed courses in the simulation of welding processes where the students will be directed by blueprints and shop notes. The finished product will be evaluated as to size, dimension, angle of cuts, bead placement, weld size, etc. as indicated by the prints provided.
Offered: Fall or Spring
Prerequisites: Take WEL.106 WEL.116 and WEL.117 WEL.107 and WEL.118 are corequisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.123 Work Experience 7.5 1.5

This work experience is designed as a culminating experience for the student pursuing the Welding Certificate program. It provides a significant opportunity for the student to apply previously learned principles in the employment setting. This work experience requires 120 hours or more of on-the-job activities.
Offered: As Needed
Prerequisites: All courses in the Welding Certificate curriculum
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.124 Auto Body Welding 1 1 1.5

This course is a continuation of WEL 118 with concentration on auto body applications. The types of joints and welds used on thin, high strength steel automobiles will be emphasized. An additional fee is required.
Offered: Fall
Prerequisites: WEL.118
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable
WEL.125 Welding Blueprints  1.5  1  2

This course provides an introduction to blueprint reading and related math for those individuals with limited or no background. Emphasis will be on welding prints, symbols, and mathematics pertinent to the welding field. Current welding prints from local businesses will be utilized throughout the course. This course is intended for welding majors or current welding employees seeking to improve their skills in these areas.
Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.126 Weld Test Evaluation  .5  1  1

This is a course designed to prepare students for employment by allowing them to practice skills already learned in preparation for completion of entry-level qualification tests given in various welding processes at local welding businesses.
Offered: Fall or Spring or Summer
Prerequisites: Completion of all other welding lab requirements of the certificate program
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.127 Welding Theory/Welding Evaluation  1  1

This course provides a convenient source of know-how or information that is needed by all persons going into the field of welding. Much information provides aids in selecting the correct process since this is directly related to the metal being welded. The processes are explained in detail and the course provides quality control data and reference material that is of high interest to welding personnel. Areas of concentration will include: Review of the major processes associated with surrounding industries.
Nomenclature and definitions specific to this process.
Offered: Fall or Spring
Prerequisites: Take wel.102 wel.109 wel.111 wel.112 wel.114 wel.115 wel.116 wel.117 wel.118 wel.119 wel.120 wel.121 wel.122 and wel.129
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.128 Flux Cored Arc Welding  2  1  1

This course is designed to enable students to produce quality fillet and groove welds in all positions using the flux cored arc welding process. Students will learn proper electrode selection, equipment set-up, and proper techniques used in industrial applications.
Offered: Fall or Spring
Prerequisites: Take WEL.107 WEL.118 and WEL.119 grade of C or better WEL.108 and WEL.120 are co-requisites
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.130 Industrial Safety  1.5  .5  2

This course provides the student with specific instruction to facilitate safe work practices in industrial environments. Students will be introduced to different safety philosophies and terminology. Students will also become acquainted with OSHA policy and with the Right to Know laws. Also covered are units specific to fire safety, pressurized gases and welding, electrical hazards, and safe machine usage. Students will have the opportunity to earn the OSHA ten hour safety certification.
Offered: Summer
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.131 Electrical Principles of Welding  1.5  1  2

This course introduces the fundamentals of electricity used in welding. Basic theory including Ohm's law, circuit characteristics, and power calculations as applied to power source selection for welding is covered. Some lab work will include testing meters and procedures used in trouble shooting power sources.
Offered: Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.149 Automated Welding Applications  1  2  2

This course is designed to help students develop basic knowledge and skills related to automated welding and cutting processes used in commercial applications. The topics of the course will include CNC plasma cutting and robotic welding, including basic programming, system operation and maintenance. Safety procedures in automated operations will be emphasized.
Offered: Summer
Prerequisites: WEL.102, WEL.118, WEL.119 and WEL.120
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.150 Robotic Applications in Welding  1  1.5  2

This course is designed to introduce the welder to the components of the welding robot and the application of robotics in production welding. Emphasis will be directed at the topics of robotic safety, robotic welding programming and robotic system maintenance.
Offered: As Needed
Prerequisites: WEL.118, WEL.119 and WEL.120
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable Elective Only
WEL.151 Introduction to Pipe Welding 1G  
 Rolled  

This is the first of a series of courses designed to prepare the student for entry-level employment as a pipe welder in the energy and infrastructure industries. The student will develop proficiency in the safe operation of the shielded metal arc welding processes on pipe to meet commercial quality standards. Emphasis will be on introductory skills, safety, and proper techniques used on welding pipe in the 1G (Flat rolled) position.

Offered: Fall or Spring or Summer
Prerequisites: WEL.101, WEL.102, WEL.111, WEL.112, WEL.114, WEL.115, WEL.116, WEL.117 and concurrent enrollment in WEL.125
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.152 Pipe Welding 2G Horizontal

This is the second of a series of courses designed to prepare the student for entry-level employment as a pipe welder in the energy and infrastructure industries. The student will develop proficiency in the safe operation of the shielded metal arc and gas tungsten arc welding processes on pipe to meet commercial quality standards. Emphasis will be on welding pipe in the 2G position (Horizontal) using SMAW and GTAW with various electrodes.

Offered: Fall or Spring or Summer
Prerequisites: WEL.151
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.153 Pipe Welding 5G Vertical

This is the third of a series of courses designed to prepare the student for entry-level employment as a pipe welder in the energy and infrastructure industries. The student will develop proficiency in the safe operation of the shielded metal arc and gas tungsten arc welding processes on pipe to meet commercial quality standards. Emphasis will be on welding pipe in the 5G (vertical up and down) position using SMAW and GTAW with various electrodes.

Offered: Fall or Spring or Summer
Prerequisites: WEL.152
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.154 Pipe Welding 6G Inclined

This is the final pipe welding course designed to prepare the student for entry-level employment as a pipe welder in the energy and infrastructure industries. The student will develop proficiency in the safe operation of the shielded metal arc and gas tungsten arc welding processes on pipe to meet commercial quality standards. Emphasis will be on welding pipe in the 6G (inclined 45 degrees) position using SMAW and GTAW with various electrodes.

Offered: Fall or Spring or Summer
Prerequisites: WEL.153
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS, and Certificates where applicable.
General Education -- Not Applicable

WEL.202 Production and Inventory Control

This course is designed for students in the welding program, and it will help them to effectively work in environments from small jobbing shops to major manufacturing plants. They will receive a broad overview of planning and control factors involved in controlling inventory as well as managing production. Students will learn the essentials of forecasting and the variety of ways forecasters attempt to minimize error, including the use of software programs. They will learn about Master Production Schedules (MPS) and Material Requirements Planning (MRP) as well as Capacity Management and required planning for input and output. Kanban, the Theory of Constraints, Lean Production, and Just-In-Time (JIT) will be introduced. Finally, they will consider the benefit of partnering functions in purchasing and distribution, as well as integrating various systems for efficiency and effectiveness.

Offered: Fall or Spring
Applicable toward graduation at Sandburg where program structure permits:
Degree or Certificate: AAS, AGS and Certificates where applicable.
General Education -- Not Applicable
Administrators

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Director of TRIO/Upward Bound
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Blake, Lisa
CFO/Treasurer
B.S., C.P.A., University of Illinois

Carlson, Dylana
Director of Recruitment
B.A., Illinois State University

DeMott, Robin
Director of Marketing & Public Relations
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B.S., Kansas State University
M.A., University of Illinois-Springfield

Eddy, Rick
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B.A., Judson University
M.A., National Louis University

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M.S., University of Akron

Krupps, Gina
Director of Human Resources

Lyon, Misty
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B.S., Western Illinois University

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Thomas, Linda

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White, Lauri
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M.A., University of Wyoming

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Wilson, Jennifer
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Yasen, Mandy
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Zamudio, Lupe
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Custodian, Third Shift
Canfield, Thomas
Administrative Computing Specialist
Caulkins, Amy
Coordinator of Library Services
Caves, Alan
Grounds Assistant
Christensen, Michael
Computing Infrastructure Specialist
Clay, Margie
Office Assistant, Humanities & Social Science Depts.
Coleman, Barbara
Staff Services Technician
Colwell, Carl
Maintenance/Delivery
Colwell, Pam
Enrollment Management Specialist
Cook, Rhonda
Benefits Manager
Cowan, Terry
Custodian, Second Shift
Cree, Sara
Coordinator of Institutional Research
Crump, Gaila
Grant/Accounting Technician
Damitz, Donna
Public Safety Officer
Day, Tony
Coordinator of Maintenance Services
Dennison, Todd
Public Safety Officer 2nd Shift
Derry, Kathy
Custodian, 1st Shift
Diaz, Christina
Graphic Design Specialist
Duley, Joan
ALC Records Clerk
Duncan, Carlos
ALC Outreach Worker
Earp, Cala
Administrative Assistant to the Dean of Career, Technical & Health Education
Engstrom, Tracy
Coordinator of Career Resources
Fields, Robert
Custodian, 1st Shift
Fones, Candace
Student Services Office Assistant
Fowler, Bruce
Custodian, 2nd Shift
Frey, Aaron
Public Relations Specialist
Friberg, Nate
Academic Advisor
Gaither, Bill
Coordinator of Multimedia
Gengenbach, Nicole
Office Assistant to the Associate Dean of Math & Natural Sciences and Foundation Assistant
Green, LaDonna
Administrative Assistant to the Associate Dean of Nursing
Gresham, Marcy
Administrative Assistant, The Branch Campus
Gridley, Neal
Custodian, Third Shift
Gross, Sara
Administrative Assistant, TRIO Upward Bound/Testing Center
Hankins, Linda
Administrative Assistant, CME/Community Education
Hanner, Tracy
Administrative Computing Information Specialist
Hillhouse, Heather
Academic Advisor
Hipple, Jan
Director of Clinical Services
Holmes, Jennifer
Academic Advisor/Retention Specialist
Howard, Jennifer
Evening Office Assistant/Library, The Extension Center
Hunt, Ronald
Administrative Assistant to the Dean of the Library
Huss, Deanna
Administrative Assistant to the Dean of Extension Services
Inman, Diane
Human Resources/CFO Information Specialist
Johnson, Lindell M. (Mark)
Building Maintenance
Johnson, Rachel
Academic Advisor
Jones, Greg
Infrastructure Services Specialist
Jones, Megan
Occupational Recruiter/Advisor
Jordan, Chelvis
Public Safety Officer - Weekend
Kratz, Michael
Manager, Help Desk Services
Krupps, Gina
Director of Human Resources
Kunkle, Beth
Coordinator of Accounting Services
Law III, Anthony
Coordinator, Minority Outreach and Admissions Recruiter
Libby, Peggy
Assistant Coordinator of Grants
Lodwick, Cary D.
Custodian, 2nd Shift
Lundeen, Jeffrey
Building Maintenance
Lundeen, Richard
Science Laboratory Technician
Malmgren, Lei Ann
Literacy Aide, The Branch Campus
Natalie Malone
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McCants, Craig
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McCoy, Donald
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McDowell, Ellen
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McKelvey, Michael
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McKillip, Racheal
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Mills, Steven
Building Maintenance
Mitchell, Terry
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Morris, Sherry
Office Assistant
Mustain, Gary
Coordinator of Adult Learning Center
Neville, John
Public Safety Officer/Weekends
Nolan, Susan
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Nunez, Margarito
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Oglesby, Holly
Human Resources Assistant
Olin, David
Public Safety Officer
Pacheco, Adelphino
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Park, Rose
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Parr, Tyler
Custodian, 2nd Shift
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Coordinator of Administrative Computing
Pendleton, Terrance
Public Safety Officer/Weekends
Pesce, Ariel
Health & Fitness Supervisor/Head Soccer Coach
Poulsón, Jeanette
Custodian/Maintenance, Carthage
Randall, Nancy
Records/Registration Specialist
Ray, Mitch
Coordinator of the Testing Center
Reid, Pam
IGEN, Adult Transition Coordinator
Rice, Susan
Risk Management/Accounting Technician
Risdon, Baird
Computer Lab Assistant
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Lead Custodian, 2nd Shift
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Runge, Jake
Coordinator of Academic Support Services
Schwab, Lynn
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Public Safety Officer, Third Shift
Sharer, Sherri
Custodian, 1st Shift
Shaw, Paula (Chris)
Coordinator, Veterans & Military Services/Financial Aid Specialist
Sims, Stephanie
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Smith, Darlene

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Executive Assistant to the Vice President of Academic Services
Snow, Angela
Assistant Registrar
Staley, William Jr.
Custodian, 2nd Shift
Stevens, Genevieve
Coordinator of Student Life
Tenhouse, Jake
Admissions Recruiter/Athletic Recruiter
Thatcher, Eric
Web Programmer
Thompson, Leslie
Student Information Assistant
Turner, Panda
Evening Office Assistant/Library, The Branch Campus
Twaddle, Ryan
Fitness Supervisor/Men's Basketball Head Coach
Van Fleet, Julie L.
Senior Executive Assistant to the President & Board of Trustees
Wilson, April
Payroll Specialist
Winkler, Todd
Head Softball & Volleyball Coach
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