*2013-2014*

# CATALOG

**MCC** Metropolitan Community College

# Metropolitan Community College Catalog 2013-2014

**NOTE**

This catalog contains information that will familiarize you with Metropolitan Community College. Contents of this catalog are current as of the August 2013 publication. Material in the catalog relates to the operations and activities of Metropolitan Community College and is for informational purposes only. It does not represent enforceable contractual obligations of Metropolitan Community College. The college reserves the right to modify programs, course offerings, printed schedules, rules, regulations and operations at any time. Information about these changes is available from members of the counseling and advising staff at any of the campuses. Check out MCC's web site at www.mcckc.edu.

Serving the four Missouri counties of metropolitan Kansas City
An Equal Opportunity/Affirmative Action Employer
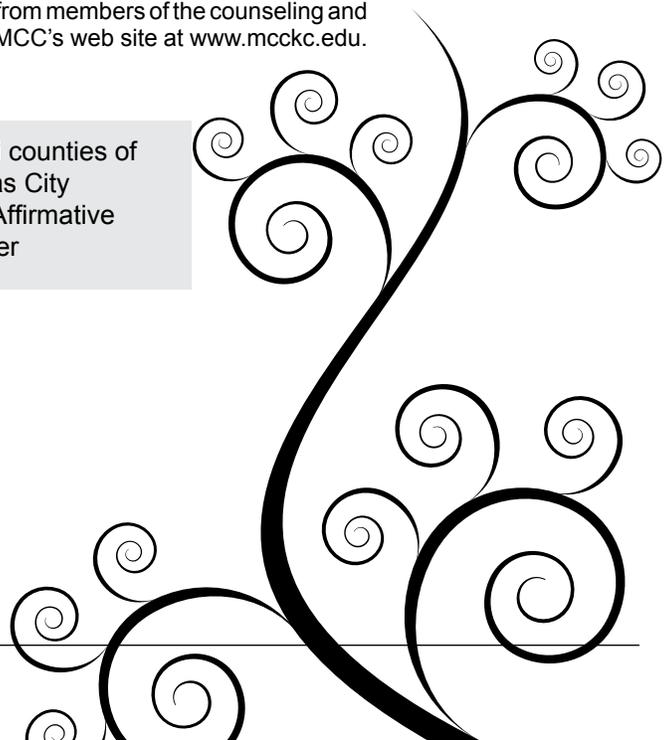
**Mark James**
Chancellor

Welcome to Metropolitan Community College! Thank you for choosing us. Whether you are fresh out of high school, are coming to us from a 4-year university, or have been in the workforce and are now looking for new skills, we are here to help you achieve your educational goals.

If you're looking to earn an associate's degree, MCC has 87 of them to choose from. If you're looking to earn a certificate in a technical career, you can pick from over 60 career certificate programs. As a transfer institution, we have over 400 articulation agreements with colleges and universities throughout the nation who will grant you credit towards a baccalaureate degree for classes taken at MCC. Whatever your objective, we want to help you accomplish it.

The following is a list of student services at MCC that are here to support you. I really encourage you to take advantage of all we have to offer:

- **Advisors** can help you figure out what classes to take to earn your degree
- **Counselors** can help you determine your career path
- **Faculty** are not only here to teach you inside the classroom but can also provide instructional support during weekly office hours
- The **Learning Center** offers one-on-one tutoring and supplemental instruction to help you better understand subjects, classes or concepts that are challenging to you
- The **Financial Aid** office can help you wade through all of the options of ways to help pay for school
- The **Re-entry Office** can help you deal with unique challenges if you have been away from school awhile and want some help re-adjusting to classroom learning
- The **Campus Life & Leadership** office has plenty of opportunities for you to get involved, to get connected, and to find your support network on campus. Student ambassadors, clubs, debate team, Skills USA, Phi Beta Kappa, and men and women's sports are but a few of the many student activities awaiting you
- The **Access Office** provides support if you're dealing with emotional, physical or learning challenges
- **Student Employment Services** can help you with your job search when you're ready to start (or continue) your career

MCC is one college with five campuses conveniently located throughout the metropolitan area. Taking classes near home, near work, or even on-line has never been easier. I truly hope that you will take advantage of these great services while you're at MCC so we can support you on your journey towards college completion.

Mark S. James
Chancellor

# The Board of Trustees

From left to right: (standing) Christopher Whiting, Robert Martin, Richard Charles Tolbert, Trent Skaggs, (seated) Mariann Tow and David Disney.

# The Officers of the District

**Mark James**
Chancellor

**Tuesday Stanley**
Vice Chancellor,
Administrative Services
and Student Development
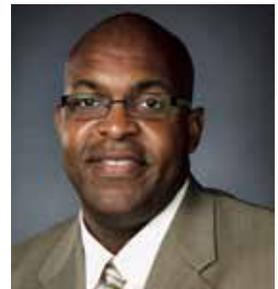
**Paul Long**
Vice Chancellor,
Academic Affairs
and Technology

**Michael Banks**
President,
MCC-Blue River

**Kirk Nooks**
President,
MCC-Longview

**Utpal Goswami**
President,
MCC-Maple Woods

**Joseph Seabrooks**
President,
MCC-Penn Valley

# All Roads Lead to MCC

**N**o matter where people live in the greater Kansas City metropolitan area, they're just minutes away from one of the five Metropolitan Community College campuses. There's MCC-Blue River in the east; MCC-Business & Technology, located near I-435 and Front Street; MCC-Longview to the south; MCC-Maple Woods in the Northland; and MCC-Penn Valley in Midtown.

## MCC INFORMATION CENTER
## (816) 604-1000

### ADMINISTRATIVE CENTER
Telephone (816) 604-1000
Fax (816) 759-1158
3200 Broadway
Kansas City, Missouri 64111-2429

### MCC-BLUE RIVER
Telephone (816) 604-1000
Fax (816) 220-6511
20301 East 78 Highway
Independence, Missouri 64057-2052

### MCC-BUSINESS & TECHNOLOGY
Telephone (816) 604-1000
Fax (816) 482-5256
1775 Universal Avenue
Kansas City, Missouri 64120-2429

### MCC-CASS COUNTY
Telephone (816) 604-1000
Fax (816) 672-2025
Belton High School Freshman Center
801 West North Avenue
Belton, Missouri 64012

### MCC-LONGVIEW
Telephone (816) 604-1000
Fax (816) 672-2025
500 SW Longview Road
Lee's Summit, Missouri 64081-2105

### MCC-MAPLE WOODS
Telephone (816) 604-1000
Fax (816) 437-3049
2601 NE Barry Road
Kansas City, Missouri 64156-1299

### MCC-PENN VALLEY
Telephone (816) 604-1000
Fax (816) 759-4161
3201 Southwest Trafficway
Kansas City, Missouri 64111-2764

### MCC-PENN VALLEY
### HEALTH SCIENCE INSTITUTE
Telephone (816) 604-1000
3444 Broadway
Kansas City, Missouri 64111-2764



Map showing MCC campus locations in the Kansas City metropolitan area, including MCC-Maple Woods, MCC-Business & Technology, MCC-Blue River, MCC-Penn Valley, MCC-HSI, MCC-Longview, and MCC-Cass County. (distance greater than it appears)
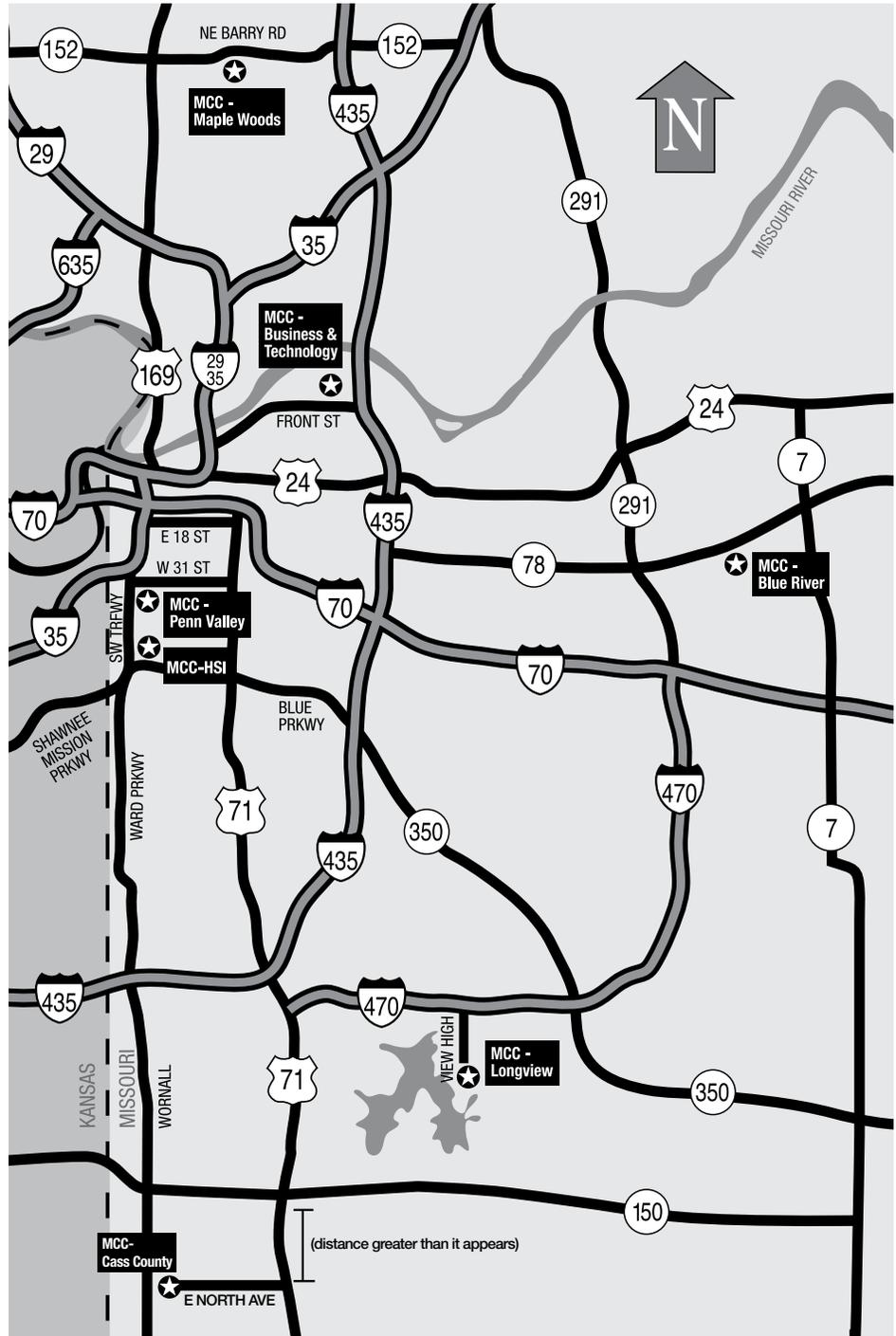
## Academic Calendar
**see www.mcckc.edu for up-to-date caldendar & events**

# MCC Mission
## Preparing students, serving communities, creating opportunities.

In order to accomplish this mission, the board of trustees has empowered the chancellor, as executive officer, to implement its policies. The chancellor, with the other officers of the District, will provide leadership in the implementation of the mission of the District.

## Vision

Learning is the focus of everything we do at Metropolitan Community College.

Student learning is central to our mission; employee learning is key to our strength; and organizational learning is the foundation for innovation and growth.

Learning is a lifelong process. Learners are whole persons with intellectual, physical, emotional, spiritual, social, ethical, vocational and economic dimensions.

As learners, as facilitators of learning, and as an organization, we accept responsibility to:
- Manage learning and commit the time and energy that meaningful learning requires.
- Encourage free, open and respectful exchange of ideas as a natural part of change.
- Synthesize tradition and innovation in order to enhance academic achievement.
- Design and implement structures and processes that promote learning.
- Draw on diversity to influence and inform learning.
- Engage in continuous assessment, reflection, and adaptation.
- Create a physical, social and intellectual environment that supports learning.
- Build partnerships that promote individual, institutional and community betterment.

## Purpose Statements
- Provide courses and associate degree programs that prepare students to transfer to four-year colleges and universities to complete bachelor's degrees.
- Provide courses, certificates and associate degree programs to prepare students to enter the work force in skilled jobs and careers.
- Provide courses, certificates and associate degree programs to assist adult workers to upgrade their job skills, change careers, or advance in their careers.
- Provide instruction in core academic skills that prepare students to succeed in college-level courses and programs.
- Provide student development and support services to assist students to achieve their academic, career and personal goals.
- Provide and support activities to enhance student learning outside the classroom.
- Provide a range of services and accommodations to help all prospective students overcome barriers to access college programs and opportunities.
- Provide courses and other educational and cultural activities to enrich the lives of members of the community.
- Provide business support services and other training and assistance to support the economic development of the community.
- Collaborate with other educational institutions, community-based organizations, agencies, businesses and industries to meet the needs of the community.

## Commitment to Diversity

Metropolitan Community College is committed to achieving freedom from all forms of discrimination and harassment in its policies, practices and endeavors. Further, MCC is committed to fostering a diverse community and to promoting greater awareness of and sensitivity to issues of diversity.

Toward that end, MCC asserts the dignity and worth of every human being and the value of diversity as a source of its strength, including diversity of race, gender, ethnicity, national origin, culture, sexual orientation, religion, disability, and perspective among students, faculty, staff and administrators.

## Core Values

Excellence. MCC strives for excellence in all that we do. We pursue innovation with thought and purpose. We constantly seek to achieve the highest level of quality in our processes, programs and services.

Success. The fundamental standard of our performance is the success of our students. We strive to support the successful development of our employees and our communities.

Access. MCC is committed to eliminating barriers to the pursuit of higher learning. We strive to provide affordable and accessible opportunities to all members of our community.

Diversity. MCC embraces diversity in our student body, work force, curriculum and community. We know that diversity supports learning, excellence and preparation for global citizenry.

Integrity. MCC adheres to the highest standards of honesty and integrity in all that we do, in academics, in communication with constituents, and in institutional policies and practices.

Inquiry. MCC supports academic freedom for faculty and freedom of inquiry for students in pursuit of knowledge and truth. We seek to engender the skills and values of a general education in all graduates.

Care. MCC is committed to establishing and maintaining a caring, safe and supportive environment, secured on a foundation of civility and respect for the dignity of all persons.

Community. MCC strives to build, nurture and improve the communities of which we are part, and to collaborate with partners to serve the common good.

## NEED HELP?
Call the Call Center at
### 604.1000

# Opening Doors of Opportunity Since 1915

The roots of Metropolitan Community College go back to 1915, when the Kansas City Polytechnic Institute was founded at 11th and Locust Street. Then 234 students enrolled. Now more than 43,000 students a year attend five MCC campuses spread across four counties. In its long tradition of excellence, MCC has brought opportunity to hundreds of thousands of people and has made an enormous cultural and economic impact on the area.

In 1919, the institution became the Junior College of Kansas City and was one of the first two-year colleges in the United States to award the associate's degree. The Junior College continued to expand until 1964, when voters in suburban school districts—Belton, Center, Grandview, Hickman Mills, Lee's Summit, North Kansas City and Raytown—joined with the Kansas City School District to create the Metropolitan Community College District.

Five years later, three colleges — Longview, Maple Woods, and Penn Valley — opened their doors. In the 80s and 90s, Blue Springs, Fort Osage, Independence and Park Hill School Districts voted to join MCC. A campus was established at Blue Springs in 1984 and in 1995, the main campus at Independence was built. In 1997, these two campuses became Blue River Community College. In 1995, business services and technical training were centralized at a location near I-435 and Front Street. Several expansions later, this facility became MCC's fifth campus, the Business & Technology Campus.

In 2005, the five Metropolitan Community Colleges became one: Metropolitan Community College (no "s") with five campuses.

**MCC-Blue River**

MCC-Blue River is MCC's fastest growing campus. It serves Eastern Jackson County with quality transfer programs and a unique Public Safety Institute that houses Police and Fire Academies and EMT training.

**MCC-Business & Technology**

The MCC-Business & Technology is home to a long list of technical programs that puts MCC at the cutting edge of today's technical world. The campus includes a 56,500 square foot meeting and exhibit hall.

**MCC-Longview**

MCC-Longview overlooks Longview Lake in Lee's Summit and is on land donated to MCC by the family of R.A. Long, a pioneer lumberman. The campus includes an exceptional Recreational Center and a nationally prominent automotive technology program. MCC-Longview was the first community college to achieve *Time* magazine/Princeton Review's College of the Year honors.

**MCC-Maple Woods**

MCC-Maple Woods in the Northland gets its name from a nearby stand of sugar maple trees. The campus includes an outstanding veterinary technology program, GIS program, and a Human Services Center, which provides housing for area human services agencies as well as the campus's child care and fitness center. The Sports Training Center (STC) offers sports teams and individuals the chance to train inside year-round.

**MCC-Penn Valley**

Located near Penn Valley Park, MCC-Penn Valley is a huge enclosed campus that includes the Francis Child Development Institute and the Anna and Kemper Carter Center for Visual Arts and Imaging Technology. South of the main campus buildings is the Health Science Institute, a state-of-the-art facility that holds more than a dozen health care programs and unique simulation suites.

# MCC Foundation-Alumni Association

The MCC Foundation-Alumni Association (MCC Foundation) is a non-profit organization that raises and receives private gifts for Metropolitan Community College. Gifts to the MCC Foundation help thousands of students by providing scholarships, and maintaining MCC's tradition of excellence for the benefit of its students, faculty, staff, and community and future students.

Scholarship funds raised by the Foundation help students who have the desire for a college education, but not the means. All students deserve the chance to better their lives through education. Students may view general information about scholarships and apply at www.mcckc.edu/scholarship. For the district, the Foundation administers over 250 scholarships and endowments, sponsors alumni and donor recognition events, and leads fundraising campaigns. Our Board of Directors participates in planning and volunteering programs as well as maintaining relationships with the greater community. The Foundation is committed to forming partnerships that make Metropolitan Community College the first choice for higher education in Kansas City.

In addition the MCC Foundation:
- Provides funds for special campus projects such as libraries, classrooms, technology, and student support programs.
- Supports the enhancement and construction of new facilities.
- Supports educational programs to increase student success.

## Foundation Mission
To advance the mission of the Metropolitan Community College by attracting resources that increase student access to educational opportunities and support quality programs and environments that respond to the educational and workforce needs of the community.

## Ways to Give
There are several ways to make a gift to the Metropolitan Community College Foundation:
**- Make an online gift**
To give online by credit card, please visit www.mcckc.edu/donate.
**-Make a gift by phone**
Call 816.604.1195 to talk to a member of the MCC Foundation.
**-Make a gift by check or money order**
Make the donation payable to:
Metropolitan Community College Foundation
3200 Broadway
Kansas City, MO 64111
**-Make a pledge**
To have a form mailed or electronically mailed to you, call 816.601.1195
**-Payroll Deduction**
If you are a faculty or staff member and would like to contribute via payroll deduction, please complete the Foundation Pledge form found on the MCC infoexchange under forms/foundation.

All gifts are administered in compliance with IRS regulations. Gifts may be designated unrestricted, which allows them to be used in the areas of greatest need, or you may specify a particular program or scholarship. Because the foundation is a non-profit organization, most contributions are tax deductible as a charitable gift. To find out more, call 816.604.1195 or visit www.mcckc.edu/foundation.

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The following are the basic steps to apply for a scholarship.

1. **Plan ahead.** Most scholarships are reviewed in the spring for the fall semester. If all MCC scholarships are not fully awarded or more funds become available later in the school year, MCC will reopen the review process for those funds still available. All scholarships are awarded based upon available funds.

2. **Complete the application.** Apply for MCC scholarships online at www.mcckc.edu/scholarshipsearch. After submitting your application, you must check your myMCCKC Student Center Scholarship Application Status page to see if any additional steps must be taken. Applications with missing information will not be reviewed and you will miss your opportunity to qualify for a scholarship or grant. You may apply for as many scholarships as you like however, the MCC Board of Trustee policy limits students from receiving more than one institutional fee-paying scholarship per year.

If the scholarship requires that you submit financial aid forms, you must complete a Free Application for Federal Student Aid. You may complete your FAFSA online at www.fafsa.gov. When completing the form, use MCC's school code 002484 to speed processing.

3. **Submit the supporting documentation.** Complete all the necessary application steps and submit necessary documentation by the priority application deadline of April 1. Meeting all the requirements of a scholarship does not automatically qualify you to receive a scholarship. A committee at each campus awards the scholarships. You must have a minimum 2.0 G.P.A. to be considered for any scholarships, unless a higher G.P.A. is noted.

4. **Ask Questions.** If you have questions, contact our MCC Information Center at (816) 604-1000.

## MCC Foundation and Institutional Scholarships
(Available at more than one MCC campus)
For all MCC Foundation scholarships the priority application deadline date is April 1. MCC will reopen the review process if funds are still available. Please contact your campus financial aid office for additional information.

Apply online: **http://mcckc.edu/Scholarships**

# Admission Information

## Eligibility

Students who want to enroll in Metropolitan Community College have several avenues that lead to admission: a high school diploma, a General Educational Development (GED) test that certifies the equivalency of high school graduation, or home-school graduation. International students are also welcome on the MCC campuses.

In some cases, those who are 18 and older and who haven't graduated from high school or obtained a GED may be admitted as special students. During their first term, the college limits them to 12 credit hours and then re-evaluates their status during subsequent enrollments. High school students under 18 may be admitted if recommended by their principal or counselor and if their application is approved by the appropriate college official.

## Catalog

The catalog is in effect for the term a student is admitted to the college and is assigned as the student's "catalog of record". Students will follow the program requirements specified in their catalog of record to progress toward graduation. Students who later change to a new major or change from non-degree-seeking status to a declared major will follow the catalog in effect at the time of the change. Students who are continuously enrolled at MCC will maintain their catalog of record. Students who miss four consecutive full semesters (excluding summer) will follow the catalog in effect at the time of re-entry.

Students may select a more current catalog as their catalog of record and would then follow the program requirements specified in that catalog. Students may not combine program requirements from multiple catalogs.

## College Orientation (COLL 100)

COLL 100 is a one credit hour course designed to help students adjust to the MCC community, develop a better understanding of the learning process, and acquire essential academic survival skills. The course should be completed during students' first enrolled semester. Starting in Fall 2012, any first-time student at MCC with fewer than 12 credit hours completed after high school with at least a 2.0 GPA will take the class, except students

- who are visiting students from another institution,
- who are coming to take a few classes for professional development/work purposes,
- who are taking classes for personal enrichment, or
- who have already successfully completed an orientation class at another institution.

ESL students who test below a 77 on the reading portion of the ESL Compass test will not take the class until they have successfully progressd to intermediate-level ESL classes.

## College Admission

To apply for admission, a student must follow these steps:

1. Complete the online MCC Application for Admission at www.mcckc.edu. Once MCC processes your application you are admitted to the college. Some MCC programs have special requirements.

2. Request that the appropriate transcripts be sent to the MCC Student Data Center, 3200 Broadway, Kansas City, Missouri 64111. Once received, transcripts will be processed and evaluated.

   a. First-time college students should ask the high school they last attended to send a transcript to the above address.

   b. Students who have taken the GED test given by the Missouri State Department of Elementary and Secondary Education should have their scores sent to the above address.

   c. Students who are transferring from another college or university should submit a transcript from each school attended to above address.

   d. Home-school students must provide documentation as required by Missouri State Statute 167.031.2 (2)(a), R.S. MO.

   e. Students who are enrolled at a college or university other than MCC may take MCC courses as a visiting student.

   f. If you have already earned a degree, you are not required to see an advisor or take the placement test. However, these services are available to assist you in selecting appropriate courses. If you are planning to pursue a degree or certificate with MCC, official transcripts must be submitted and it is also important to consult with an advisor to ensure your enrollment includes all the necessary courses.

Students seeking admission to MCC should apply and send the required documents to the Student Data Center several months or weeks before classes begin. The student will receive an electronic communication or a letter confirming admission and notifying each student how to enroll in classes.

## Admission of High School Students

High school students who want to enroll at MCC must obtain permission from a parent or legal guardian. They may take a limited class schedule but only after getting approval from their high school official and the appropriate MCC administrator. After this approval, students should complete an Application for Admission, which is available online at www.mcckc.edu.

MCC's dual credit program offers college credit for courses as part of daily scheduled classes at area high schools. Dual credit tuition and fees may be different from those set for on-campus courses, but they are the same for all high schools. High school students must talk to their high school counselor regarding eligibility requirements before enrolling .

NOTE: Metropolitan Community College does not give high school credit.

online. **anytime.** WWW.MCCKC.EDU

## Admission to JCCC and KCKCC Programs

Metropolitan Community College (MCC) has established affiliate agreements with Johnson County Community College and Kansas City Kansas Community College (referred to below as Affiliate Colleges) in career fields not currently offered by MCC. These agreements allow MCC students who are in-district and Missouri residents to enroll in selected career programs offered at these institutions and pay MCC's tuition rates.

## Policies and Procedures

1. A student in the Affiliate Program is responsible for tuition at the MCC rate.

2. Only courses that are not offered at MCC are covered by this Agreement. If you elect to take a course at the Affiliate College that is offered at MCC, you will be responsible for paying the out-of-state tuition.

3. Repeated course work is not covered by this Agreement. If you elect to repeat a course at the Affiliate College, you must pay the out-of-state tuition at that college.

4. Enrollment in the program is limited. Students must submit their transcripts and application for admission to the Affiliate College by the established deadline. Check with the Admissions Office at the Affiliate College.

5. Federal financial aid may not be granted by more than one college during each enrollment period. If you are seeking financial aid, contact the Financial Aid Office at the Affiliate College.

6. MCC reserves the right to make changes in the program at any time.

## Admission and Enrollment Steps for MCC Affiliate Program Students

New Affiliate Program Students, complete steps 1 through 6.

1. Complete an application for admission and take a placement test at MCC.

2. Complete an Affiliate Program Student Agreement form and present it in person at any MCC Student Records office. This form is available at www.mcckc.edu or any MCC Student Records Office.

3. Complete and submit an application for admission to the Affiliate College Admissions Office. For selective admission programs you must be accepted by the program director before you can enroll in the classes.

Continuing Affiliate Program Students, complete steps 4 – 6

4. See the appropriate program advisor at the Affiliate College and register for degree-specific classes. See class schedule for registration information.

5. Pay tuition and fees at the Affiliate College.

6. If you are applying for financial aid, apply through the Financial Aid Office at the Affiliate College.
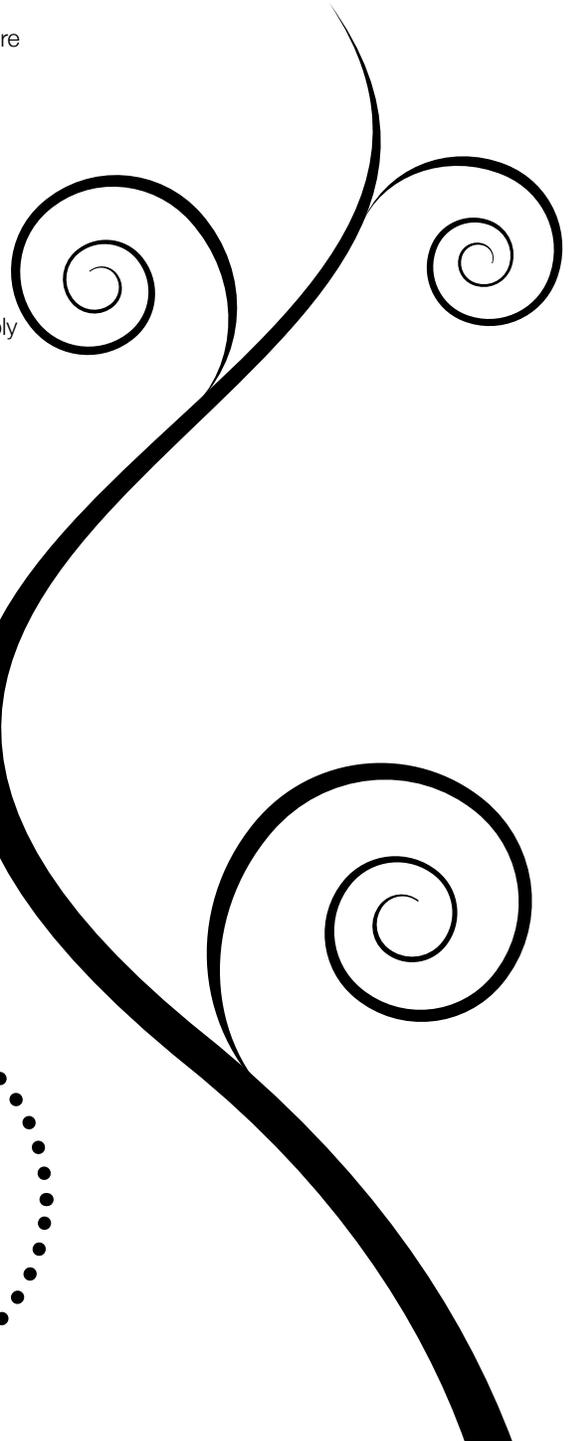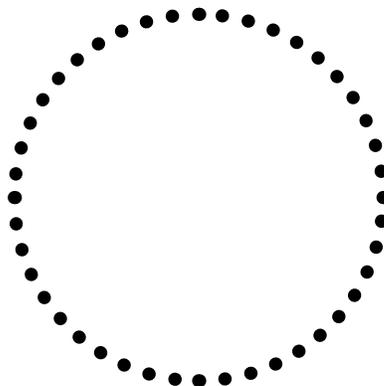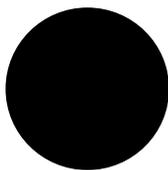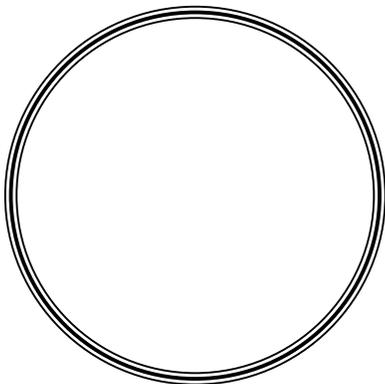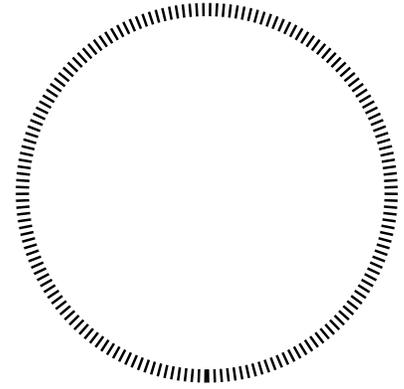
## International Students

Application Procedure for International Students
To be considered for admission, all applicants must complete requirements listed below:
- Submit a $50 application fee in U.S. dollars. This is a non-refundable fee that will be applied to your first semester's tuition.
- Submit a completed Application for Admission for International Students. This form must be completely filled in and submitted by the prospective student.
- Bank Statement and Affidavit of Support.
- Official School Transcripts (translated to English).
- Transfer Clearance Form. If you are transferring from another U.S. school, you must also submit a Transfer Clearance Form. The International Student Advisor at the college you are now attending must fill it out.
- TOEFL is not required for admission. Applied Language Institute. The Applied Language Institute offers comprehensive English as a Second Language instructional programs for academic, personal or professional reasons. Grammar, composition, reading/vocabulary and speaking/listening classes are available at the beginning, intermediate and advanced levels. Day and evening sections are offered. Students wishing to attend ESL classes must take the placement test given by the institute. For more information about enrollment requirements, program curriculum and class scheduling, call (816) 604-4041.

International Student Application Deadlines
Students from Overseas

| | |
|---|---|
| Fall Semester (August-December) | July 1 |
| Spring Semester (January-May) | December 1 |
| Summer Semester (June-July) | May 1 |

Students Transferring from Another U.S. School (must have written authorization from that school)

| | |
|---|---|
| Fall Semester (August-December) | August 1 |
| Spring Semester (January-May) | January 2 |
| Summer Semester (June-July) | May 15 |

For more information visit
**www.mcckc.edu/international.**

## Placement Testing

To help students succeed, most MCC students must take placement tests in reading, writing, and mathematics. Placement tests are required for the following groups of students:

1. All first-time students taking six or more credit hours.
2. Students who are not graduates of an accredited secondary school or who do not have a GED certificate.
3. Returning or transfer students taking six or more credit hours who have not successfully completed a college-level reading, English, and math course with a grade of C or better.
4. All students not tested previously who plan to enroll in reading, English, or math classes.

Additional Notes:
- Visiting students who have approval for enrollment from their home college will not be required to take the placement test.
- If a student has taken the ACT examination in the last two years, he or she may be able to use those scores in place of parts of the placement test. The student must submit the ACT scores to the Student Data Center, or bring an official score report when they come to test.

- It is the policy of Metropolitan Community College that all non-native speakers of English take the Applied Language Institute's English Placement Test. This test is only offered at the campuses. Students will be placed at the appropriate level of instruction in the Applied Language Institute based on the results of the English Placement Test.
- Students with disabilities who need testing accommodations must contact the Access Office before scheduling their placement tests.

Based on their test scores, all students will be placed in the appropriate reading, English, and math classes. Students with below college-level scores are required to take classes designed to improve their reading, writing, or math skills.

The reading, English, and math departments have set MCC's required entry-level standards for students. Students who wish to appeal these standards should contact the appropriate department chair.

## Resident Classification

Student tuition and fees are determined by the following definitions and criteria.

### Definitions
**Domicile.** A residence established with the intent of making that residence a permanent home for an indefinite period.

**Residency or Resident Status.** That status achieved after proving a residency has been established.

**Adult Student.** A student who is twenty-one years or older.

**Unemancipated Minor Student.** A student younger than twenty-one years and who is under the care, custody, or support of a parent or legal guardian.

**Emancipated Minor Student.** A student younger than twenty-one years but who is not under the care, custody or support of a parent or legal guardian.

**District.** The Metropolitan Community College District includes the following Missouri school districts: Belton, Blue Springs, Center, Fort Osage, Grandview, Hickman Mills, Independence, Kansas City, Lee's Summit, North Kansas City, Park Hill, and Raytown.

**District Resident.** A person whose residence status is in the district.

**Out of District Missouri Resident.** A person whose residence status is in Missouri, but not in the district.

**Out of State Resident (Non Resident).** A person who lives in the United States, but not in the state of Missouri, or a foreign national who is in the United States on an approved student visa status.

**Five Campuses.
One MCC.**
Blue River
Business & Technology
Longview
Maple Woods
Penn Valley

### Resident Status

Adult Student. If a nonresident adult student provides sufficient proof of the establishment of a domicile within the district, then that student will be considered a district resident at the next enrollment.

If a nonresident adult student provides sufficient proof of the establishment of a domicile within the state of Missouri but not in the district, then that student will be considered a nondistrict Missouri resident at the next enrollment.

Unemancipated Minor Student. MCC assumes that an unemancipated minor student lives with his or her parents or legal guardians. If the parents or legal guardians establish a domicile within the district, the student will be considered a district resident at the next enrollment.

Once an unemancipated minor student has established resident status under this rule, the student may continue to qualify for resident status as long as he or she is continuously enrolled at MCC (excluding summer terms). The student will retain this status even if his or her parents or legal guardians move outside of the district.

Emancipated Minor Students. The domicile of emancipated minor students will be determined as if they were adults. A minor may become emancipated through marriage, formal court action, abandonment or leaving the home of his or her parents or legal guardians. However, the mere absence of a student from the home of his or her parents or legal guardian does not prove emancipation. A student will not be eligible for emancipation as long as he or she is taken as an income tax deduction by someone other than a spouse.

Members of the Military. Students will not gain or lose their resident status because of military service.

The resident status of a military member on active duty assigned to a Missouri duty station is determined by the location of that station. The person's spouse and unemancipated minor children have the same resident status.

Foreign Nationals. The domicile of a resident alien determines resident status. A foreign national in a student visa status approved solely for the purpose of education is an international student. The residence of a foreign national in a visa status permitting enrollment in education determines resident status.

## Determining Resident Status

Students are responsible for providing documentation supporting resident status.

### Evidence of Eligibility

Attendance at an institution of higher education is considered as temporary presence in the district or the state of Missouri and does not establish resident status.

### Evidence of Domicile

The following offers sufficient proof of domicile.

1. Presence within the district or the state of Missouri for a minimum of twelve immediate past, consecutive months with proof of intent to make the district or the state of Missouri a permanent home for an indefinite period.

2. Presence within the district or the state of Missouri for the purpose of retirement, or full-time employment, professional practice or to conduct a business.

### Supporting Evidence

The following will be given significant weight, but will not conclusively prove establishment of domicile.

1. Continuous presence in the district or the state of Missouri during those periods when not enrolled as a student.

2. Marriage to a district or Missouri resident and maintenance of a common domicile with the resident spouse.

3. Substantial reliance on sources within the district or the state of Missouri for financial support.

4. Maintaining a domicile within the district or the state while absent.

5. Ownership of a home within the district or the state of Missouri.

### Other Evidence

Although the following factors indicate an intent to make the district or state of Missouri a permanent home for an indefinite period, they will be given less weight than those in the previous section. These factors will help determine status only in borderline cases.

1. Voter registration.
2. Part-time employment.
3. Statement of intention to establish a domicile in the district or the state.
4. Automobile registration with an address in the district or the state.
5. Valid driver's license with an address in the district or the state.
6. Tax receipts from income, personal, and property taxes paid to the district or the state.

## Certifying Residency

Each student must pay fees and tuition to Metropolitan Community College based on his or her resident classification. If there is any possibility the student may owe the district more in fees and tuition than what has been assessed, it is the student's responsibility to raise the issue during registration.

Penalty for Giving False Residency Information

The student's record will not be certified to any agency until he/she has paid the difference between the fees and tuition paid and the amount owed by a person of that resident status.

## Students in the Military

MCC is a Service Members Opportunity College (SOC), one of more than 1,000 colleges and universities that provide advantages including credit for military education for military members and their families and for veterans. For those who qualify, MCC provides a 100% tuition and textbook refund for students called into active duty or given military transfer orders who must withdraw from classes prior to completing the semester. Contact the campus registrar's office for refund information.

As part of the SOC agreement, MCC will limit academic residency to twenty-five percent or less of the degree requirement for all degrees for active-duty servicemembers and their adult family members (spouse and college-age children). In addition, there are no "final year" or "final semester" residency requirements for active-duty servicemembers and their family members. Academic residency can be completed at any time while active-duty servicemembers and their family members are enrolled. Reservist and National Guardsmen on active-duty are covered in the same manner.

For more information, call Matt Vandenberg at MCC at (816) 604-1561.

# Financial Information

## Tuition and Fees

The Metropolitan Community College Board of Trustees approves the schedule of tuition and fees annually. Your residency determines the amount you will be charged per credit hour. Residency must be established prior to the term start date.

**In District Rate-** To qualify for this rate you must reside in one of the following school districts: Belton, Blue Springs, Center, Fort Osage, Grandview, Hickman Mills, Independence, Kansas City, Lee's Summit, North Kansas City, Park Hill or Raytown.

**Out of District Rate-** To qualify for this rate, you must reside in the state of Missouri and outside of the school districts listed above.

**Out of State (Non-Resident)-** You are considered a non-resident if you do not reside in Missouri or are a foreign national who is in the U.S. in an approved student visa status.

### Financial Responsibility

As a student at MCC, you become financially obligated and responsible for paying all college charges. If your financial aid award, scholarship or payment from an external source becomes unavailable or is insufficient to pay charges, you are ultimately responsible for the balance.

Failure to attend classes does not relieve you of the responsibility of paying your balance. To have charges removed or reduced, you must officially drop the classes within the designated refund period.

Any outstanding charges will result in a financial hold on your account. Financial holds will require that you pay your outstanding balance in order to re-enroll, receive a diploma and/or transcript. MCC will begin immediate collection efforts that may include placing your account with the Missouri income tax intercept program and/or an outside collection agency. You will be responsible for all collection costs assessed by the outside collection agency.

### Lab and Studio Fees

For some courses or programs — such as biology, chemistry, fine arts, and nursing — students may have to pay a laboratory or studio fee for each contact hour. Contact hours are those hours that students must spend in a lab or studio each week. They are not the same as credit hours.

### Loss or Damage to District Property

A student may be asked to reimburse the district for the loss of or damage to district property including unreturned rental books. For example, students must pay for unreturned library books. If payment is not made, a hold will be put on the students account and the student will not be allowed to enroll in any MCC class, will not be allowed to check out any further property, and official college records, including transcripts and grades, will be withheld. Privileges will be reinstated once the debt is paid.

### Tuition Payment Plan

Metropolitan Community College offers a payment plan to provide students the option of paying tuition and fees in installments over the course of the term. Students can sign up for the payment plan any time prior to the first installment due date by paying only a non-refundable fee and by identifying a preferred payment method for the automatic payments—either a payment card or bank account. Students who sign up for the plan after the first installment due date are required to pay the sign-up fee plus the first installment amount.

The payment plan divides the total balance owed by the student into equal installments and schedules the appropriate number of automatic payments, depending on the plan option chosen. The system recalculates payment plans daily to account for changes in enrollment (added or dropped classes), financial aid adjustments, or payments from the last 24 hours. Any student whose plan was updated that day receives an email notification of the new plan amounts.

On each installment due date, payments are automatically processed against the student-designated payment method (card or bank account). Students are assessed a late fee if their automatic payment fails and their installment remains unpaid.

Payment plans are available for the fall, spring, and summer terms. The number of plan installment options will vary by term.

### Delinquent Accounts

Students who become delinquent on their account will receive ebills, paper statements, letters and calls informing them that they must pay their debt by a certain date or they will be turned over to outside collections. Transcripts, diplomas and/or enrollment are immediately restricted until the balance is paid in full. Budget friendly customized plans are available through Delinquent Accounts.

Placing with collections includes reporting the balance to the State of MO income tax intercept program and/or an outside collection agency. Students are responsible for all collections costs incurred at the collection agency.

### Returned Checks

Checks returned insufficient funds by the banks are deposited a second time. If the check is returned again, your account is placed on restriction and is charged the amount of the check plus a $25 fee. Students on restriction cannot enroll or receive grades or transcripts. You also lose check-writing privileges at MCC for one year. Any returned check not paid may involve outside collection actions.

### District Residents 65 and Older

Any resident of the district who is 65 or older may attend classes on a space-available basis without paying tuition. Some classes require a lab or studio fee.

## Refund Policy

To be eligible for a refund, students must officially drop their classes by the deadline in the Refund Schedule. Students may find the specific dates for the Refund Schedule in the Class Schedule each term. All refunds will first be applied to any debt the student owes to MCC.

Students receiving financial aid refunds should go online to myMCCKC for disbursement information.

## Financial Aid

One goal of Metropolitan Community College is to make higher education available and affordable to all area residents regardless of their personal finances. MCC students can take advantage of a variety of grants, loans, scholarships and part-time employment programs to help pay for their education. The federal government and state of Missouri fund some of these programs, while others are supported by contributions made to the MCC Foundation Alumni Association, by private citizens and civic organizations.

Information is available about student aid programs, their eligibility requirements, how to apply and what expectations and responsibilities recipients must meet. Access the MCC website (www.mcckc.edu), visit any of the campus financial aid offices, or call the MCC Information Center at (816) 604-1000.

Students completing the Free Application for Federal Student Aid (FAFSA) should use the following number for all MCC campuses: 002484. The FAFSA may be found on the web at www.fafsa.ed.gov.

To receive financial aid, you are expected to attend all classes on which the financial aid award is based. Award funds may be delayed if you do not attend the first class.

If you stop attending all of your classes before completing 60% of the semester, you will owe money back to federal aid programs.

# Academic Information

## Academic Standards

For each course taken for college credit, students earn grades that become part of their permanent records. Metropolitan Community College uses the following grading system:

**A**  Superior performance.

**B**  Highly satisfactory performance.

**C**  Satisfactory or average performance.

**D**  Unsatisfactory, but passing performance.

**F**  Failure; unsatisfactory performance.

**W**  Withdrawal from class. This grade is given to a student who has either withdrawn from class during the first 60% of the term (except during the 100% refund period) where there is no official withdrawal noted on the transcript) or who has been doing satisfactory work and was withdrawn during the last 40% of the term.

**S**  Average or satisfactory (C or above) performance for assigned work when a student chooses the satisfactory-unsatisfactory option (This option is discussed in the following section.)

**U**  Below average (D or F) performance for assigned work when a student chooses the satisfactory-unsatisfactory option. No credit or grade points are assigned. (The satisfactory-unsatisfactory option is discussed in the following section.)

**P**  Passing or better performance in continuing education or noncredit courses.

**I**  Incomplete work. A student receives this grade when he or she has completed all but a small part of the required coursework. The instructor decides if there is an acceptable reason (for example, a serious illness) why he or she hasn't completed all of it. If the student makes up the work during the following semester, the instructor will change the incomplete to a letter grade. If the work isn't made up, the incomplete will become an F on the student's permanent record.

**Au**  Audit. A student may choose to audit a class but receive no credit for it. The decision to audit must be made at registration.

### Grade Reports

Final grade reports can be accessed online at

## myMCCKC

### Audit

Students may elect to audit a course rather than receive a grade. Students must pay the regular fee, but are not expected to complete assignments or take tests. Class attendance is optional. To sign up for an audit, students must complete a form from the records office at time of enrollment.

Note: Financial aid is not available for audited classes.

### Satisfactory-Unsatisfactory Option

Each semester, students may select one course to receive either a satisfactory or unsatisfactory mark rather than a traditional letter grade. If they do average or better work (A, B, or C), they receive an S. They receive a U for less than average work (D or F). Students may only apply 15 credit hours of S marks toward a degree.

To sign up for the satisfactory-unsatisfactory option, students must fill out a form from the records office before the end of the first quarter of the class.

### Scholarship Points

These are number values assigned to each letter grade that help determine a student's grade point average.

| Grade | Scholarship Points Per Credit Hour |
|---|---|
| A | 4 |
| B | 3 |
| C | 2 |
| D | 1 |
| F | 0 |
| W (withdrawal) | 0 |
| S (satisfactory) | 0 |
| U (unsatisfactory) | 0 |
| P (passing) | 0 |
| Au (audit) | 0 |

### Grade Point Average (GPA)

To determine a student's GPA, multiply the number of credit hours for each course by the number of scholarship points assigned to that grade. Add together the scholarship points from all classes and then divide that figure by the total number of credit hours attempted. When calculating GPA, do not include classes for which a student has received a W, P, I, S, U or Au or when duplicate courses have been repeated. The GPA does not include courses that have been excluded under academic forgiveness.

### Repeating Classes

Students may repeat a class to try to improve their grades. Although all the grades earned in a particular course will be included on their MCC academic record, only the last grade will be used to determine GPA. Other colleges and universities may have different policies. There may be limits on the number of times a student may repeat the same class.

### Final Exams

Final exams are given in all MCC classes, and students must take them. Toward the end of each semester, the administration at each MCC campus puts together a final exam schedule for all faculty members and students.

A student who has done satisfactory course work but who misses the final exam may be allowed to make it up if the instructor believes the reason for missing the exam was reasonable. However, if a student misses the exam and has no reasonable explanation for missing it, the instructor may give the student an F.

Students who can't take a final exam because of illness or another valid reason should take the following steps:

1. Notify the instructor as soon as possible and provide a reason for their absence so the instructor can give them a grade of Incomplete (I).

2. Make up the final exam as soon as possible to remove the grade of Incomplete (I).

## Grade Change

A change in a student's grade will be made only in extraordinary circumstances.

A grade change may be made by the instructor during the three instructional terms following the assignment of the grade. After this period, a grade change may be made only with the approval of the instructor and the dean of instruction.

When the instructor is unavailable or unable, the division chair may initiate a grade change with the approval of the dean of instruction and the president.

## Honors

An honor student must be enrolled in six semester hours or more and have a semester grade point average of 3.5 or higher for all courses in which scholarship points were earned. Each campus also has its own special honors programs. For more information, contact the academic advisors or counselors at the appropriate MCC campus.

## Satisfactory Academic Progress

Students must maintain a certain grade point average and progress toward degree or certificate completion in order to continue enrollment.

All Federal financial aid recipients and some other scholarship recipients must meet specific standards for satisfactory academic progress. Students are advised to become familiar with the requirements of their grants, scholarships, loans and/or aid. Access MCC's SAP Policy online at
www.mcckc.edu/SAP

## Academic Record

The college keeps an official academic record for each student, which includes the following:

1. The student's cumulative record including directory information, a list of all the courses the student has been enrolled in, the grades and scholarship points for those classes, the number of credit hours the student has attempted and earned, the cumulative grade point average, honors earned by the student and degrees or certificates the college has awarded to the student.

2. The student's degree plan.

3. The student's high school transcript and/or transcripts from other colleges and universities.

All items are kept in compliance with federal and state regulations.

According to federal law, the only people who have access to student records are MCC faculty and staff members carrying out the business of the college. This includes those who maintain the student's records, counsel the student or provide academic advice.

## Academic Intervention and Support

Students whose grade point average falls below 2.0 will be offered academic intervention and support. Students whose grade point average consistently remains below 2.0 even after academic intervention and support may be subject to additional intervention including academic restrictions, academic probation, and finally, academic exclusion for one semester.

## Academic Renewal

Students may be eligible to have past poor academic performance excluded from calculation of current academic progress at MCC. Students requesting academic renewal may have grades earned at least five years prior to such a request eliminated from calculation of their current grade point averages at MCC. Other colleges and universities may have different policies. For more information and to complete the request form, contact an advisor at any MCC Campus.

## Academic Integrity

MCC, as an academic community, expects all administrators, faculty, staff and students to behave as responsible members of the college community and to be honest and ethical in their academic work. To falsify or fabricate the results of one's research; to present the words, ideas, data, or work of another as one's own; or to cheat on an examination corrupts the essential process of higher education.

Students assume full responsibility for understanding and complying with MCC standards for academic integrity. If academic dishonesty is demonstrated, students may be subject to failure in an assignment, a course, or subject to even more severe consequences, including expulsion from MCC.

For more information on penalties and procedures related to academic dishonesty, see the Student Code of Conduct.

## Transcripts

MCC will provide transcripts of a student's academic record after receiving a written or on-line request. Official copies of the transcript, which bear the MCC seal, will be sent directly to other colleges and universities. MCC charges no fee for providing transcripts requested.

## Credit by Certification

Credit for noncollege experience may be given to entering freshmen and other students who meet certain certification guidelines. However, only experiences that relate specifically to a program offered by MCC will be eligible for certification credit.

## Credit by Examination

Entering freshmen and other students may be given credit in certain subjects by passing examinations. Only 30 semester hours of credit may be earned this way.

## Credit for Advanced Standing (Transfer Credit)

Transcripts from all previously attended colleges and universities must be submitted to the Student Data Center at 3200 Broadway, Kansas City, Missouri 64111. Any foreign transcripts must be translated and evaluated by an outside service, such as Educational Credential Evaluators, Inc. (www.ece.org). MCC accepts credit in transfer from regionally accredited institutions of recognized standing, both public and private. Transfer work will not be evaluated and posted until MCC has received official transcripts directly from the transferring school or in a sealed envelope. All courses taken at other colleges and universities become part of the student's permanent record. However, only courses equivalent to those in the student's MCC program will be applied toward an MCC degree or certificate. While the MCC GPA is used for a MCC degree or certificate, the transfer GPA will appear on the MCC transcript as a transfer GPA and included in the combined GPA. Note: Transfer work may impact financial aid eligibility.

## Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act of 1974 (FERPA) was enacted to protect student privacy and to provide for the right to inspect and review education records. More detailed information on MCC's FERPA policies can be found on page 22.

## Attendance

The college expects students to attend every meeting of every course they're enrolled in. If attendance is a problem, MCC may dismiss a student from class for the following reasons:

1. If a student has been absent for two consecutive weeks or the equivalent time period during a shorter term.

2. If the student has missed one-third of sessions scheduled for the class that semester.

In some cases, due to the subject matter of the course, an instructor may enforce an even stricter attendance policy. However, if a student has a valid reason for being absent, he or she should consult with the instructor who may grant the student permission to make up the work.

## Attendance-Financial Aid

To receive financial aid, you are expected to attend all classes on which the financial aid award is based. Award funds may be delayed if you do not attend the first class. If you stop attending all of your classes before completing 60% of the semester, you will owe money back to federal aid programs.

## Dropping a Course

Students may drop classes at any time throughout the semester, however, they must officially withdraw from classes by dropping the class through myMCCKC. During the 100% refund period of the class a withdrawal removes the class from the transcript. After this timeframe, a withdrawal assigns a W to the class. During the last 40% of the term students who withdraw will receive a W if they're passing the class or an F if they're failing. Withdrawn classes are counted as attempted hours for financial aid.

NOTE: Students are responsible for withdrawing from courses they stop attending.

## Withdrawal from College

Students who want to withdraw from all classes before the end of the semester should officially withdraw by dropping their classes through myMCCKC. The date the withdrawals are processed becomes the official date of withdrawal on a student's permanent record. That date may determine the student's semester grades. If a student withdraws from a class during the last 40% of the semester and he or she is doing unsatisfactory work, then the recorded grade will be an F.

Students who receive federal or state financial aid, including loans:

If you stop attending all of your classes before completing 60% of the semester, you'll owe money back to the federal aid program(s).

Students are responsible for withdrawing from classes they stop attending. A student who fails to officially withdraw might receive an F for the class.

## Student Load

A full load is carrying at least 12 credit hours during the fall and spring semesters and at least six hours during the summer term. However, if students want to complete 62 credit hours and earn an associate's degree in four semesters, they must take 15 or 16 hours each semester. For some programs requiring more than 62 credit hours, students may need to take 18 hours each semester.

Students with unsatisfactory academic records may be limited to taking less than a full load. However, students with superior records may receive permission to carry more than 18 hours.

## Student Conduct

Metropolitan Community College expects students to conduct themselves in a manner appropriate for an educational setting. This includes complying with federal, state and municipal laws prohibiting certain activities in general and others that pertain to public school property and college-sponsored functions. Students who act inappropriately or who show disruptive behavior may be disciplined by MCC as well as face criminal charges.

Weapons including firearms, whether visible or concealed, shall not be permitted on district facilities or at district events. No person shall possess or carry any weapon as defined in Section 571.010, RSMo. including a firearm, whether concealed or visible, on district property. This prohibition shall also apply to vehicles on district property unless any such vehicle is operated by a commissioned police officer.

In addition to demonstrating honesty and integrity, students are expected to comply with all policies, regulations and procedures of Metropolitan Community College. They should follow the college traffic code and the directions of all college representatives acting in an official capacity.

For more complete information about the Student Code of Conduct, please consult PRP7.35010 in the Metropolitan Community College manual of Policies, Regulations, and Procedures, which is available online, or from the office of the dean of student development.

## Student Disciplinary Procedure

A student who is charged with misconduct which requires disciplinary action will be required to meet with the appropriate dean. The student may request a hearing by committee. This request is made through the dean of student services. The committee will determine if the misconduct charge is justified and if disciplinary action is appropriate. The committee also may recommend to the college president how the student should be disciplined.

## Student Grievances

According to MCC regulations and procedures, a student who has complaints about a course should first talk with the instructor or instructors involved. If the issue cannot be resolved, then the student should go to the appropriate division chairperson. If the student is still not satisfied, then he or she should discuss the situation with the dean of instructional services. If the problem persists at this level, then the dean of instructional services will appoint a faculty committee to resolve the issue.

Students who have complaints about issues outside the classroom should see the dean of student services.
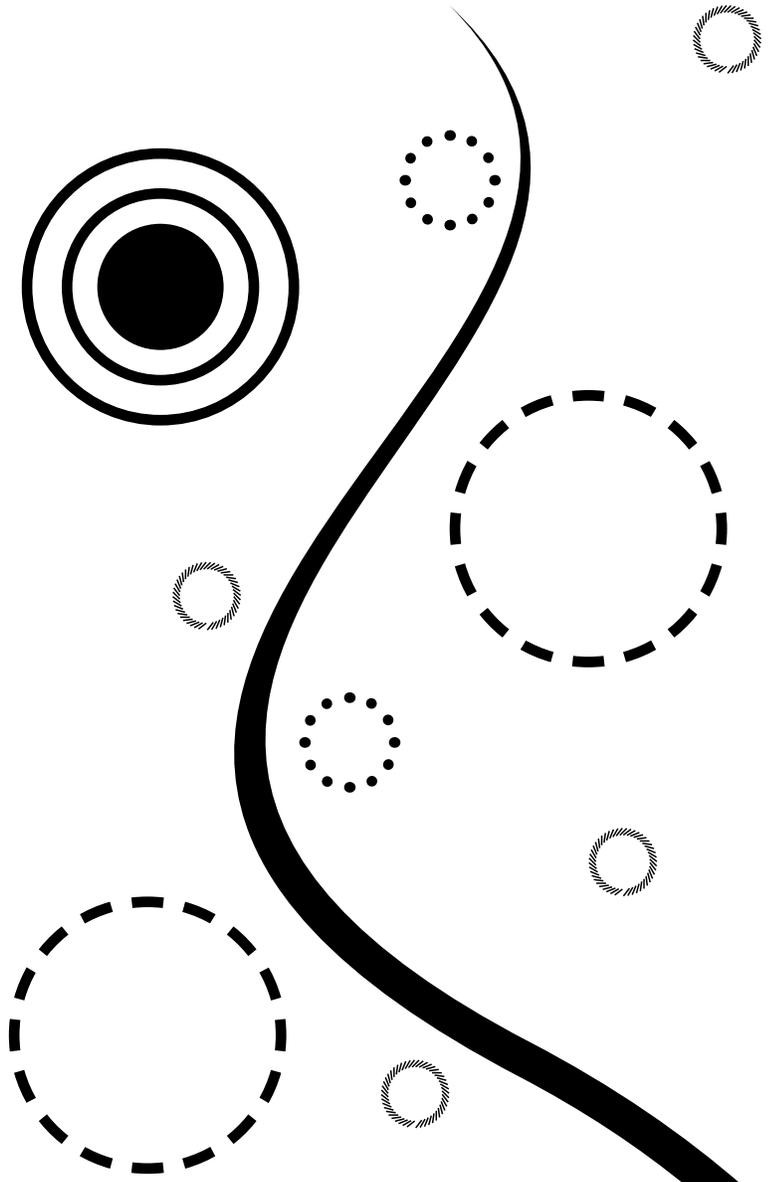
# Student Services

## Academic Advising

Academic advisors are available to assist students with selecting classes and creating schedules each semester or term as needed. Advisors help students access MCC programs and services. They are also familiar with the academic programs and transfer requirements of the colleges and universities to which MCC students transfer. They provide valuable assistance to students throughout their stay at MCC.

For those interested in transferring, the counseling or development center has large catalog collections from four-year colleges and universities as well as information about requirements needed for specific programs at other area institutions.

## Student Employment Services

Make the connection between school and work with Student Employment Services. This office provides resource materials, computers, and expert advice on resumes, cover letters and interview questions. Preparing for the next career step is important and SES Coordinators are available to make individual appointments to assist with students' unique situations.

Opportunities on Project HIRE, the MCC Internet job bank, are easily accessed at www.projecthire.net and includes links to Kansas City's largest employer web sites. Watch for campus career fairs, a great way to network with company representatives, along with internships; available throughout the year. SES also helps students looking for work on-campus whether it is for Federal Work Study or regular student jobs, a convenient way to go to school and earn extra money.

Students should consider visiting their closest MCC-Student Employment Services office before graduation to help with job decisions.

## Counseling

MCC's professional counselors are available to assist students with their career, educational, and personal concerns. Students may schedule individual conferences with counselors.

As part of the enrollment process at MCC, students can talk with a counselor who will help them select a program of study that best fits their interests, values and career goals. Then, throughout their stay at MCC, the college encourages them to meet regularly with their counselors or advisors to further discuss their educational progress and future plans. Inventories that help students assess their skills, interests, values and personality style for career planning purposes are available through the counseling or development center.

## Support Services

### Child Care Centers

So parents with small children can attend classes, MCC provides child care centers at MCC-Maple Woods and MCC-Penn Valley. Educational programs are also available for children age two-and-a-half to five. For more information, call the centers:

| | |
|---|---|
| MCC-Maple Woods | (816) 604-8780 |
| MCC-Penn Valley | (816) 604-4140 |

Every full-time staff person at the child care centers is trained in early childhood education. MCC-Penn Valley offers its own program in Child Growth and Development. Call (816) 604-4539 to learn more about the program.

### Parking

A parking sticker is required to park on campus. Obtain a free sticker at the campus Public Safety Office or at an information desk on the campus.

## Textbooks and College Bookstores

MCC provides a bookstore at each of the district campuses. These stores are operated according to guidelines and policies approved by the Chancellor and the Board of Trustees.

Book costs are determined by the publishers of each title and MCC uses an industry standard markup on new textbooks to cover the costs of operating the bookstores. A full-time student should expect to pay $300-$700 per semester for textbooks. At the end of each semester, the bookstores hold a textbook buyback where texts being used for the next semester may be purchased from the student for approximately 50% of the new text price. Those texts will then be available for students to purchase for the next semester.

In an effort to control the rapidly rising costs of textbooks, MCC has implemented a textbook rental program for selected classes using a tiered pricing structure. Students may rent a book, use it for the semester and return it in resalable condition to the bookstore before the posted deadline. Check with each store to see which classes have rental textbooks available.

For more information regarding MCC's bookstores and their policies, go to **www.bookstores.mcckc.edu**

### College Libraries

Metropolitan Community College (MCC) libraries provide a variety of resources and services to assist students in their research needs. More than 70 online databases provide access to magazine, journal, and newspaper articles, plus reference information on current events, careers, law, health, history, science, business, literature and more. These databases may also be accessed by students from computers off-campus.

Each library has a collection of books and periodicals for class work, research, and leisure reading; video, and audio. Students attending one campus can use materials from any of the other MCC libraries. Borrowing procedures are similar on all campuses.

The MCC libraries belong to MOBIUS (Missouri Bibliographic Information User System), a consortium of over 60 academic libraries in the state. Through MOBIUS, library users have access to over 18 million items.

Our local MOBIUS cluster is WILO (Western Inter Library Organization), which is made up of the libraries of MCC, Avila, Kansas City Art Institute, Midwestern Baptist Theological Seminary, Rockhurst, St. Paul School of Theology, and William Jewell. Books from these libraires can be obtained using your library card or through the library interlibrary loan service.

The library staff includes professional librarians who provide assistance in reference and research. The libraries offer computers for access to the databases, the book catalog, and the Internet, as well as space for individual study or research.

More information is available at the MCC Library website, which is located at http://mcckc.edu/library. Individual campus libraries can also be accessed through this site. Reference assistance is also available online through "Reference Librarian Chat."

### Computer Lab Services

All MCC campuses provide computer labs for student use — including Internet access — although some are restricted to specific programs such as math and science. Check with each campus for more information about hours of operation and available services.

### E-mail Access

All MCC students taking classes for credit will be given an e-mail address and have access to e-mail messages. This allows them to electronically communicate with instructors, other students, MCC's many student service providers, and others. A copy of the student e-mail policy is available at **www.mcckc.edu.**

## Disability Services

Each MCC campus is served by a Disability Support Services (DSS) office that provides assistance for eligible students who have a documented disability as defined by the Americans with Disabilities Act. This may include, but is not limited to, students with learning disabilities, attention deficit disorder, physical impairments, hearing or vision loss, psychiatric diagnosis, and brain injuries. All services provided by the MCC DSS Offices are individualized based on each student's documentation and specific needs. Please make requests for support services as early as possible as some accommodations require extended periods of time to obtain. For more information, or to make an appointment, call:

| | |
|---|---|
| MCC-Blue River | (816) 604-6651 |
| MCC-Business & Technology | (816) 604-3192 |
| MCC-Longview | (816) 604-2254 |
| MCC-Maple Woods | (816) 604-3192 |
| MCC-Penn Valley | (816) 604-4293 |

For relay calls, dial 711.

For more information, visit the MCC website at: www.mcckc.edu/access.

## ABLE Program

The ABLE program (Academic Bridges to Learning Effectiveness), offered at Longview, provides a more intensive level of services for students with Learning Disabilities (LD), Traumatic Brain Injuries (TBI), autism spectrum disorders (ASD) and other neurological diagnoses to help students make the transition into college. A learning disabilities specialist works individually with each student to design a program that fits his or her needs. The student also takes special courses to learn basic skills, communication skills, and college survival strategies.

By providing a structured curriculum, as well as extra counseling and academic support, the ABLE program gives students a solid foundation for success. Additional fees are charged for students opting to enroll in this program. For information about ABLE, call (816) 604-2053.

Visit the ABLE website at

# www.mcckc.edu/able

## Learning Assistance Centers

Each campus has a learning assistance center or teaching/learning center where students can receive individual or small-group tutoring for many of their courses. Daily labs are scheduled to provide help with writing, math and accounting either on a walk-in basis or by appointment. Math study groups and computer-assisted instruction are also available.

Other noncredit services are offered to help students improve their study skills. These include listening and note-taking, reducing test anxiety, test-taking strategies and research paper pointers. All of these services are provided free to currently enrolled students.

## Reading Centers

Reading centers also offer MCC students services such as diagnostic testing, tutoring and special classes. These reading classes range from basic skill building in word recognition and spelling to advanced levels of critical and speed reading. Programs can be designed to fit a student's special needs. For more information about MCC's reading study centers, call the following campuses:

| | |
|---|---|
| MCC-Blue River | (816) 604-6770 |
| MCC-Longview | (816) 604-2665 |
| MCC-Maple Woods | (816) 604-3309 |

# www.mcckc.edu/tutoring

## Reentry Programs

For adults who have been away from school for several years, MCC has special reentry programs to make the transition from working or homemaking back to the classroom as easy as possible. Reentry students receive individual attention from counselors and advisors and referrals to special MCC services. For instance, the Reentry Center at Longview provides a place to connect with other adult students, have a hot beverage, and get answers to questions from the Reentry staff. Some campuses also offer a four-credit section of ENGL 101 designed to make the transition to college easier by teaching composition as well as college success skills. At all campuses, a counselor oversees a special tuition and child care grant program for single parents and displaced homemakers.

To find out more about these programs, call the campuses at the following numbers:

| | |
|---|---|
| MCC-Blue River | (816) 604-6568 |
| MCC-Longview | (816) 604-2294 |
| MCC-Maple Woods | (816) 604-3095 |
| MCC-Penn Valley | (816) 604-4089 |

## Project Success

The Student Support Services program (SSS) at Penn Valley is one of the Federal TRIO programs funded through the U.S. Department of Education. SSS is appropriately called Project Success on the Penn Valley campus. Project Success is designed to encourage the success of 250 low-income, first generation college students or persons with a documented disability each academic year by providing:

- academic tutoring that supplements the classroom experience,
- transfer coordination to expose the participants to the opportunities that await them at four-year colleges and universities,
- counseling to provide academic assistance and assist with managing the daily stress,
- cultural enrichment to extend the social dimensions of the participants served,
- workshops to teach and/or strengthen skills needed for success.

These expanded services increase the likelihood of success. Call the Project Success office, (816) 604-4313, to schedule an appointment or visit its web site:

# www.mcckc.edu/pennvalley/success

**did you know?**

incoming students take College Orientation to help them succeed from Day One!
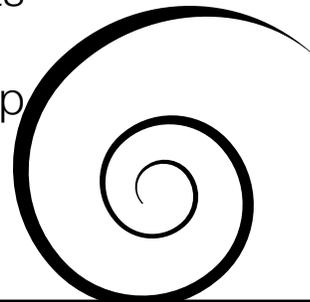
## Campus Life and Leadership

The mission of Campus Life and Leadership is to complement the academic program and enhance the sense of community on campus. This goal is accomplished by providing opportunities for students to develop, implement and participate in social, cultural, intellectual, recreational, governmental, and community service programs and events. These co-curricular experiences provide students with leadership skills that can be utilized in future educational, community and professional work environments.

Campus Life and Leadership also sponsors leadership and other activities throughout the year. For specific clubs and organizations, opportunities for involvement or how to start a club or organization, contact the Office of Campus Life and Leadership at your campus.

## Athletics

MCC offers students the chance to participate in intramural sports and recreational sports. In addition, four campuses are involved in intercollegiate athletics. As members of the Region XVI National Junior College Athletic Association (NJCAA), MCC-Longview and MCC-Maple Woods field baseball teams. MCC-Longview also competes in volleyball and cross-country for women, while MCC-Maple Woods offers women's softball. MCC-Penn Valley, which is a member of the Greater Kansas City Community College Conference and NJCAA, has men's and women's basketball teams. In addition, MCC-Blue River and MCC-Maple Woods offer men's and women's soccer.

## Fitness Centers

The MCC campuses have fitness centers. Students pay a small fee to use the centers each term. All feature excellent equipment, locker rooms, towel service, fitness coordinators and a variety of fitness, aerobics and wellness classes. In addition, the MCC-Longview recreational center includes a huge swimming pool. Since each campus has its own use and operating procedures, please call the following numbers for more information.

| | |
|---|---|
| MCC-Longview | (816) 604-2400 |
| MCC-Maple Woods | (816) 604-3555 |
| MCC-Penn Valley | (816) 604-4222 |

## Kansas City Area Student Exchange

If MCC doesn't offer a course a full-time student (one enrolled in at least 12 credit hours) wants to take, then he or she may enroll in that course at another area college without paying additional fees. The following area colleges belong to the Kansas City Area Student Exchange (KCASE): Avila College, Kansas City, Mo.; Kansas City Art Institute, Kansas City, Mo.; Park College, Parkville, Mo.; Rockhurst University, Kansas City, Mo.; and the University of Missouri-Kansas City, Mo. Contact the admissions and records office at any of the MCC campuses for more information.

## Educational Opportunity Center (EOC)

The Educational Opportunity Center provides prospective college students with college selection and admissions guidance, scholarship search, assistance in completing the Free Application for Federal Student Aid (FAFSA), career counseling, default student loan counseling, and GED referral and placement. Students already enrolled in college may also take advantage of these services. All services are free.

The EOC is funded by the U.S. Department of Education. The center is located at 3100 Main, Suite 100, Kansas City, MO 64111. For more information about EOC or to make an appointment with a counselor or advisor call (816) 604-4400.

## Cancellation of Classes

The campuses may find it necessary to cancel classes because of insufficient enrollment or other circumstances. Whenever possible, a class will be cancelled before the first meeting and enrolled students will be notified. If a suitable alternate course isn't available, students will receive a complete refund of tuition and fees for the canceled courses.
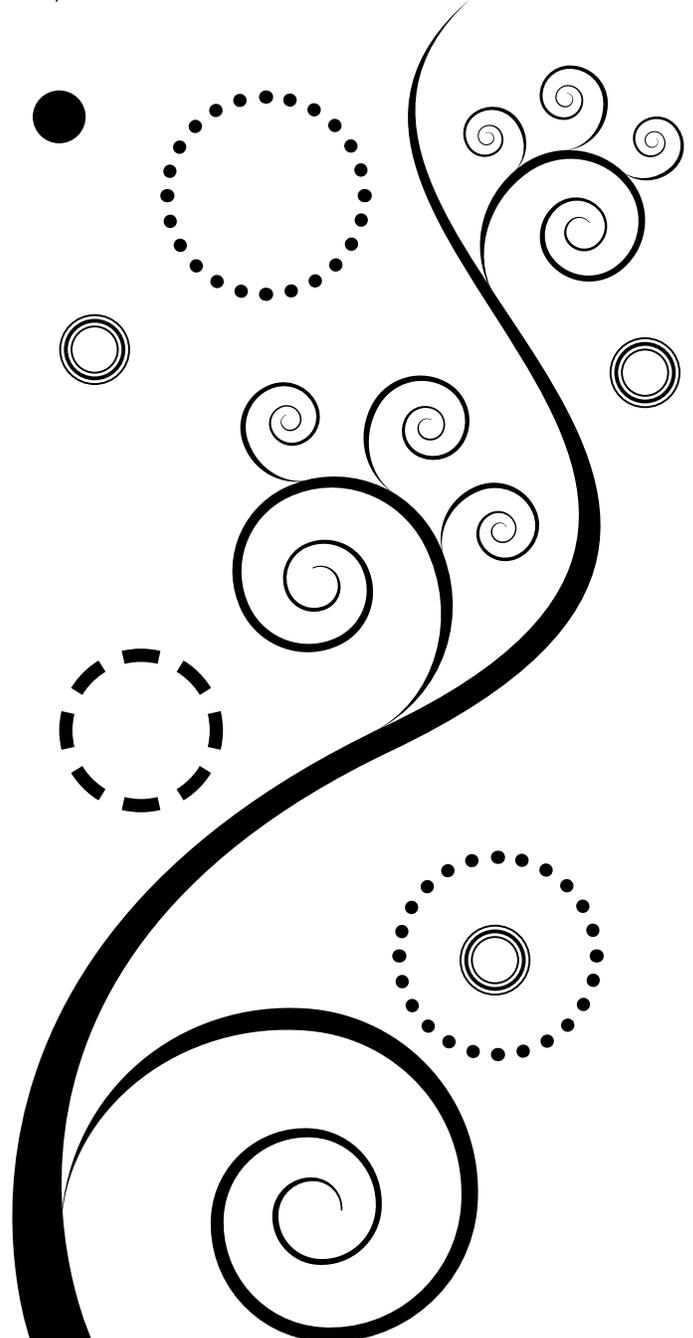
# General Information

## Compliance With Federal Laws and Regulations

### Certification of Accuracy
I certify that the statements in this catalog are a true and accurate representation of the policies of Metropolitan Community College.

Mark S. James
Chancellor

### Nondiscrimination
This public "NOTICE of NON-DISCRIMINATION" is required by several federal laws and regulations including those implementing Title VI, Title VII, Title IX, Americans with Disabilities Act, Section 504 and the Age Discrimination Act. This notice serves to inform all members of the Metropolitan Community College faculty, staff, student body and guests, that Metropolitan Community College prohibits discrimination on the basis of race, color, religion, sex, sexual orientation, age, birth, ancestry, national origin, or disability in admissions; educational programs, services, or activities; and employment. Following are the applicable federal and state Civil Rights laws that prohibit discrimination:

Title I of the Americans with Disabilities Act of 1990 prohibits employment discrimination against qualified individuals with disabilities by employers with 15 or more employees. The U.S. Equal Employment Opportunity Commission and the Office for Civil Rights are the agencies assigned to enforce Title I of the ADA.

Title II of the Americans with Disabilities Act of 1990 prohibits disability discrimination by public entities, including public colleges and universities whether or not they receive federal financial assistance. The Office for Civil Rights (U.S. Department of Education) is the law enforcement agency charged with enforcing Title II of the ADA.

Title VI of the Civil Rights Act of 1964 prohibits discrimination on the basis of race, color, or national origin in any program or activity receiving federal financial assistance. Programs and activities that receive federal financial assistance from the United States Department of Education are covered by Title VI. The Office for Civil Rights (U.S. Department of Education) is the law enforcement agency charged with enforcing Title VI.

Title VII of the Civil Rights Act of 1964 protects individuals against unlawful employment practices based on their race, color, sex, and national origin. The Civil Rights Act of 1991 significantly extended plaintiffs' rights under Title VII. The U.S. Equal Employment Opportunity Commission is the law enforcement agency charged with enforcing Title VII.

Title IX of the Education Amendments of 1972 prohibits discrimination on the basis of sex in education programs or activities and extends to employment and admission to institutions that receive federal financial assistance. The Office for Civil Rights (U.S. Department of Education) is the law enforcement agency charged with enforcing Title IX.

Age Discrimination Act of 1975 protects people from discrimination based on age in programs or activities receiving federal financial assistance. The U.S. Equal Employment Opportunity Commission is the law enforcement agency charged with enforcing the ADA of 1975.

Age Discrimination in Employment Act of 1967 protects individuals who are 40 years of age or older. The U.S. Equal Employment Opportunity Commission is the law enforcement agency charged with enforcing the ADEA.

Civil Rights Act of 1991 provides monetary damages in cases of intentional employment discrimination. The U.S. Equal Employment Opportunity Commission is the law enforcement agency charged with enforcing the CRA of 1991.

Equal Pay Act of 1963 protects men and women who perform substantially equal work in the same establishment from sex-based wage discrimination. The U.S. Equal Employment Opportunity Commission is the law enforcement agency charged with enforcing the EPA.

Section 504 of the Rehabilitation Act of 1973 protects people from discrimination in admission, employment, treatment, or access based on disability in programs or activities receiving federal financial assistance. The Office for Civil Rights (U.S. Department of Education) is the law enforcement agency charged with enforcing Section 504.

Executive Order 11246 requires certain government contractors to engage in affirmative action and to not discriminate based on race, sex, or national origin. The Office of Federal Contract Compliance Programs (U.S. Department of Labor) is the agency charged with enforcing EO 11246 and ensuring that federal contractors are in compliance.

**COLLEGE NONDISCRIMINATION STATEMENT:**
The College's nondiscrimination statement, cited below, prohibits discrimination and harassment against individuals based on characteristics protected under federal and state law, as well as on the basis of sexual orientation. The college also prohibits retaliation based upon reporting of such violations.

**Metropolitan Community College is committed to a policy of nondiscrimination on the basis of race, color, religion, sex, sexual orientation, age, birth, ancestry, national origin, or disability in admissions; educational programs, services, or activities; and employment; as specified by federal laws Title VI; Title VII; Title IX, section 504; the Americans with Disabilities Act; and state laws and regulations.**

Federal citations:
The regulations implementing Title VI, Title IX, Section 504, the Age Discrimination Act, and Title VII contain requirements for recipients to issue notices of nondiscrimination. 34 C.F.R. Sections 100.6(d), 106.9, 104.8, 110.25, 41 C.F.R. Sections 60-1.42(a), respectively. The Title II regulation also contains a notice requirement that applies to all units of government, whether or not they receive federal aid. (See 28 C.F.R. Section 35.106.)

MCC is an equal-opportunity employer.

Inquiries concerning MCC's compliance may be addressed to the following persons:

**MCC District**
Kathy Walter-Mack, Chief of Staff,
Associate Vice Chancellor of Human Resources,
3200 Broadway, Kansas City, Missouri 64111-2429;
telephone (816) 604-1587

**MCC-Blue River**
Jon Burke, Dean of Student Development,
20301 E. 78 Highway, Independence, Missouri 64057-2053;
telephone (816) 604-6620

**MCC-Business & Technology**
Karen Moore, Dean of Student Services,
1775 Universal Avenue, Kansas City, Missouri 64120-1318;
telephone (816) 604-5229

**MCC-Longview**
Karen Goos, Dean of Student Development,
500 SW Longview Road, Lee's Summit, Missouri 64081-2015;
telephone (816) 604-2326

**MCC-Maple Woods**
Shelli Allen, Dean of Student Development,
2601 NE Barry Road, Kansas City, Missouri 64156-1299;
telephone (816) 604-3175

**MCC-Penn Valley**
Yvette Sweeney, Dean of Student Services,
3201 Southwest Trafficway, Kansas City, Missouri 64111-2764;
telephone (816) 604-4114

Inquiries may also be addressed to the
Director, Office for Civil Rights,
Department of Education,
8930 Ward Parkway, Suite 2037
Kansas City, MO 64114
telephone (816) 268-0550

## Tobacco-Free

Metropolitan Community College is committed to providing a safe and healthy environment for all students, employees, contractors, and visitors. As a result of this commitment, the use, advertising, or sponsorship of tobacco and tobacco substitute products, excluding cessation products, on all campus premises, leased property, and college-owned vehicles is prohibited, with no exceptions. This policy applies to all students, employees, tenants, subtenants, contractors, and visitors. For additional information on Tobacco-Free MCC go to http://mcckc.edu/tobaccofree

## Right to Know

MCC complies with the provisions of "The Crime Awareness and Campus Security Act of 1990." A provision of this act requires higher education instituitions to provide students an annual report that contains occurences of criminal offenses and arrests on campus and adjacent public property. This report is available at www.mcckc.edu/crimereport.html website. For a printed copy, please call (816) 604-1436 or stop by the campus public safety offices.

## Student Consumer Information

The Higher Education Opportunity Act of 2008 (HEOA) requires that postsecondary institutions participating in federal student aid programs make a variety of disclosures to students. Many of these disclosures are listed in this catalog on the following pages:

Additional required student consumer information can be found on the MCC website at http://www.mcckc.edu/StudentConsumerInfo.

You may request information from the
MCC Information Center at (816) 604-1000.

## Americans with Disabilities Act

Metropolitan Community College complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act which prohibit discrimination in admission or access to its programs based on disability. Each MCC campus has an Access Office that provides special services for students with documented disabilities. Arrangements can be made for aids and adjustments to help ensure equal access to programs and services. The campus Access Office also has information regarding the existence and location of services, activities, and facilities that are accessible to and usable by persons with disabilities.

Inquiries may be addressed to:

**MCC-Blue River**
Access Counselor,
20301 E. 78 Highway,
Independence, Missouri, 64057-2023;
Telephone: (816) 604-6651

**MCC-Business & Technology**
Access Resource Educator,
2601 NE Barry Road,
Kansas City, Missouri, 64156-1200
Telephone: (816) 604-3192

**MCC-Longview**
Access Resource Educator,
500 SW Longview Road,
Lee's Summit, Missouri, 64081-2015;
Telephone: (816) 604-2254

**MCC-Maple Woods**
Access Resource Educator,
2601 NE Barry Road,
Kansas City, Missouri, 64156-1200
Telephone: (816) 604-3192

**MCC-Penn Valley**
Access Resource Educator,
3201 Southwest Trafficway,
Kansas City, Missouri, 64111-2764:
Telephone: (816) 604-4293

For relay calls dial 711.

## Sexual Harassment

Metropolitan Community College strongly believes that the classroom and workplace should be free of sexual harassment, including unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct or communication of a sexual nature. Sexual harassment will not be tolerated either in the classroom or in the workplace. Sexual harassment is prohibited by Federal and State law as well as Board of Trustee Policy. Anyone found to be in violation of such laws or policy will be subject to serious disciplinary action, including expulsion and termination. If you have questions or believe that you have been subjected to sexual harassment, you should contact the college counseling department or the dean of students office listed on page 21.

## Student Rights Under the Family Educational Rights and Privacy Act (FERPA)

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access. Students should submit to the Dean of Students or the Office of the Registrar/Enrollment Manager ("College Official") a written request that identifies the record(s) they wish to inspect. The College Official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College Official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate, misleading, or in violation of the student's right to privacy. Students desiring an amendment to their education record should write the College Official responsible for maintaining the record, clearly identify the part of the record they want changed, and specify why it is inaccurate, misleading, or in violation of the student's privacy.

3. The right to a hearing regarding the request for an amendment of the student's education records. If the College decides not to amend the record as requested by the student, the College must notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

4. The right to prevent the College's disclosure of the student's personally identifiable information from the student's education records in most circumstances. The College must obtain the written consent of a student before disclosing that student's personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. Where required, a student's consent must specify the records to be disclosed, the purpose of the disclosure, and the party or class of parties to whom disclosure may be made. FERPA contains the following exceptions allowing a College to disclose a student's personally identifiable information:

a) Disclosure to school officials with legitimate educational interests is permitted without a student's written consent. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted institutional services or functions that the College would otherwise use employees to perform (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

A school official must be under the direct control of the institution with respect to the use and maintenance of information from education records.

b) Disclosures to parents are permitted in three situations. First, disclosure of a student's personally identifiable information to parents is permitted absent a student's written consent in the event of a health or safety emergency. The College may disclose education records in an emergency if the College determines that there is an articulable and significant threat to the health or safety of the student or other individuals. Second, disclosure of a student's personally identifiable information is permitted to parents of the student if the student is a dependent pursuant to Section 152 of the Internal Revenue Code of 1986 and notice is given to the student that a parent has requested such information. Third, disclosure of a student's personally identifiable information to parents is permitted without the student's written consent if the student is under 21 and has violated a law or College rule or policy governing alcohol or controlled substance consumption.

5. The right to opt out of the disclosure of directory information. Pursuant to FERPA, the College has classified certain personally identifiable information as directory information. Metropolitan Community College defines directory information as the student's name, address, telephone number, e-mail address, photos, date of birth, place of birth, class, major field of study, dates of attendance, full time/part time status, degrees, honors, and awards received, participation in officially recognized activities and sports, physical traits of athletes, and the most recent previous educational institution attended by the student. Students who wish to restrict the release of directory information must submit the appropriate form to the Office of the Registrar/Enrollment Manager during the first week of each academic term. This form can be found on the College's website, at the Dean of Students' Office or at the Office of the Registrar/Enrollment Manager. Upon receipt of such request the Office of the Registrar/Enrollment Manager will designate that the student's directory information is confidential and not to be released outside the College except to individuals, institutions, agencies and organizations authorized in the Act. The College will honor all requests to withhold any of the categories of directory information listed above but cannot assume any responsibility to contact the student for subsequent permission to release information. Nondisclosure will be enforced until the information is subsequently released by the student. A student may not, however, opt-out of disclosure of the student's name, institutional e-mail address, or electronic identifier in the student's classroom. Regardless of the effect on the student, the College assumes no liability for honoring the request of the student to restrict the disclosure of directory information.

6. The right to file a complaint with the U.S. Department of Education concerning alleged failures by Metropolitan Community College to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue, SW
Washington, DC 20202-5920

## Nonimmigrant Alien Students

Metropolitan Community College is authorized under Federal law to enroll nonimmigrant alien students.

## Drug Free Schools and Communities Act

Metropolitan Community College subscribes to the Drug Free Schools and Communities Act. Board policy expressly forbids the possession, use and/or distribution on college premises of alcohol, illegal drugs and all other controlled substances. Metropolitan Community College will distribute annually to all students and employees information about its drug prevention program, including information relative to college sanctions for violation of the board policy, legal sanctions, health risks and drug and alcohol counseling, treatment and/or rehabilitation programs.

# Workforce Development & Business Consulting Services

## Short-Term Training for Jobs
MCC is committed to training and developing Kansas City's workforce. Our open enrollment classes provide job-ready training—whether you're looking to start in a new career or further your skills in your chosen field, we can help. Our research team determines where the jobs really are and who's hiring as we develop our courses. We offer convenient, short-term scheduling, and many of our courses can be completed in less than 12 weeks. Online courses are also available. We focus on the technical and personal skills employers want. Our industry-experiences instructors and up-to-date course content is just what you need to get ready for work.

**We offer:**

### Healthcare
- Pharmacy Technician
- Phlebotomy
- Certified Nurse Assistant (CNA)
- Certified Medication Technician (CMT)
- CNA and CMT Challenge Examinations
- Insulin Administration
- Certified Restorative Nurse Assistant (CRNA)
- Level I Medication Aide
- Mental Health Technician
- Central Services/Sterile Processing
- Health Unit Coordinator
- Hospice and Palliative Care
- Medical Interpreter Programs
- OSHA for Health Care

### Information Technology
- CompTIA A+ certification
- CompTIA Net+ certification
- Microsoft Office Applications
- Microsoft Office Specialist (MOS)
- Microsoft IT Academy - Network, Systems, Web (online)
- Web Development

### Education
- 50+ programs
- Child growth and development

### Safety
- OSHA Training Institute Education Center
- Environmental Health & Safety

### Technical Skills
- Welding
- Gas Utility Technician
- Customer Contact Professional
- Machining (Manual/CNC)

### Transportation
- CDL-A Truck Driver Training
- Certified Logistics Associate
- Certified Logistics Technician
- Introduction to Supply Chain ERP systems
- Security Issues in Supply Chain Management
- GIS for Supply-Chain Risk Management

# Community Education • • • • • • • • • • • • • • • • • • • • • • • • • • •

### MCC-Blue River
(816) 604-6518; mcckc.edu/brcommed
- Driver's education
- Certified Physical Agility Testing for Fire
- Continuing Education Units

### MCC-Longview
(816) 604-2030; mcckc.edu/lvcommed
- ACED (classes for adults with developmental disabilities)
- Adult leisure classes
    - o Personal interest
    - o Foreign language
    - o Computer/technology
    - o Health/fitness
- ed2go online classes
- Flights of Fancy kite festival
- Reading Horizons (one-on-one reading tutoring)

### MCC-Maple Woods
(816) 604-3011; mcckc.ed/mwcommed
- College Experience for Adults with Developmental Disabilities
- Ed2Go online classes
- Free Introductory Computer Classes
- Kansas City Storytelling Celebration
- Motorcycle safety training and repair maintenance
- Professional development

**Community Education:
Leisure and Lifelong Learning
MCC Community Education offers lifelong learning opportunities for the enrichment, education and enjoyment of our neighbors.**

## Contract Training for Companies

MCC's Institute for Workforce Innovation has been ranked in the Top 25 Area Consulting Firms by the KCBJ two years in a row.  For more than 25 years, MCC has served Kansas City's workforce needs, providing customized training and consultative services.  We believe in improving performance from the ground up—people, processes, even the workplace environment to maximize your company's productivity.  Our performance consultants are experts in their fields, bringing a real-world value that is relatable to both front-line workers and executives alike.  The Institute can customize a solution to meet your company's needs with a variety of delivery options available, including on-site training, online courses and state-of-the-art labs at any of our convenient locations. We offer:

- Assessment
- Call Center Training
- Casino Employee Training
- CNC Training
- Database Solutions
- Employee & Team Training
- Environmental Health & Safety
- Gaming & Hospitality Training
- Green Solutions
- Healthcare Consulting & Training
- Human Resources
- Learning Management
- Manufacturing Technology
- OSHA Training Institute Education Center
- State Training Funds
- Quality Management
- Virtual CNC Training
- Virtual Safety Manager

## Missouri State Funding

MCC has partnered with the Missouri Division of Workforce Development to assist companies in applying for state training funds and offer programs designed to meet company needs. These programs are designed to facilitate training and financially assist employers who are expanding their workforce, locating a new facility in the state or relocating a company to Missouri. The training available is as diverse as the companies serviced. Industry sectors MCC has served in the past include: healthcare, animal health, manufacturing, energy and green technology, information technology, and transportation and logistics. Whether your company is new, expanding or retraining, we have a program that can grow your bottom line and your next-generation workforce.
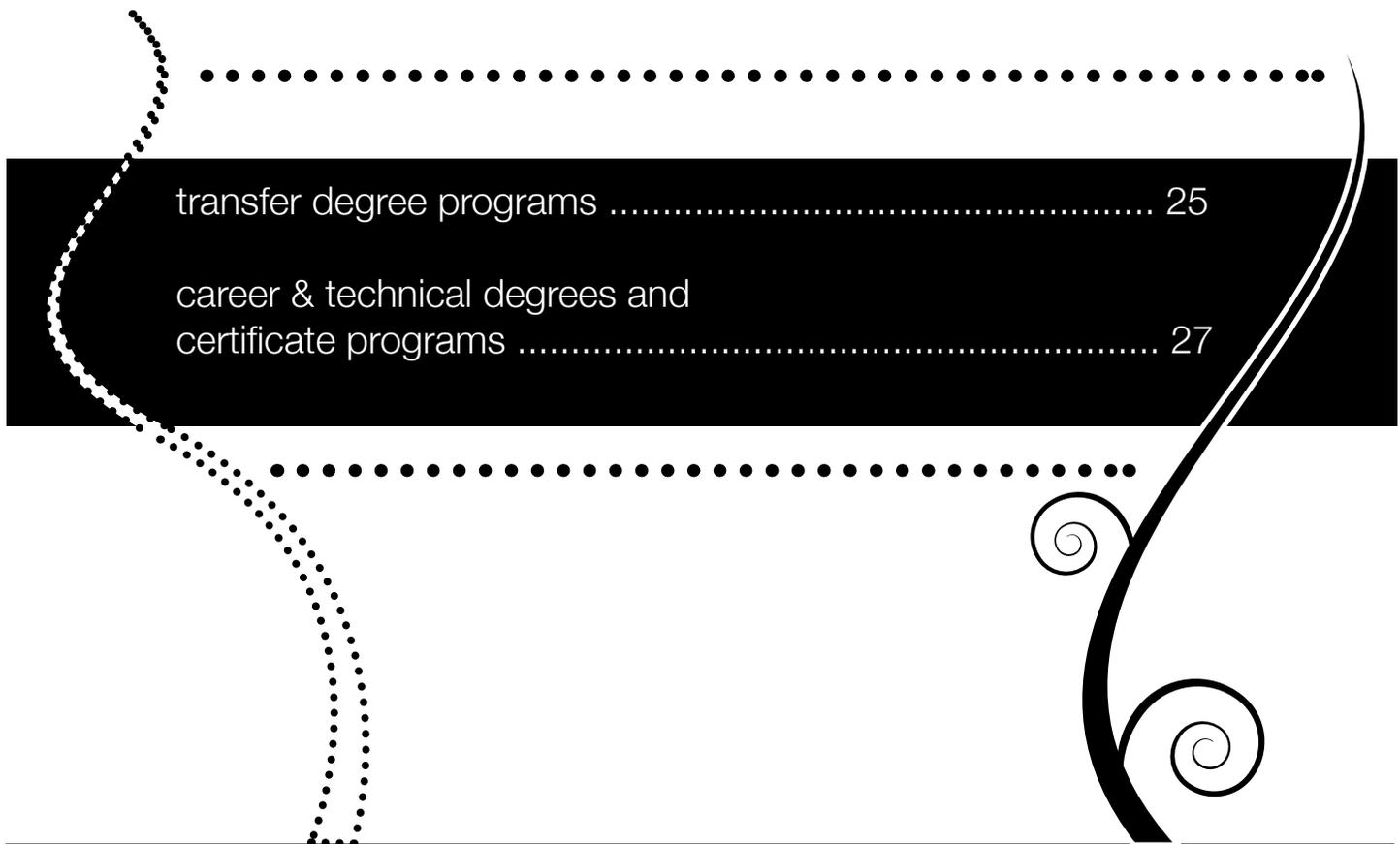
# Transfer Degree Programs

## Degrees

Metropolitan Community College awards degrees that can be transferred to a four-year college or university. They are:

Associate in Arts
Associate in Arts Business
Associate in Arts Criminal Justice
Associate in Arts Teaching
Associate in Computer Science
Associate in Engineering
Associate in Science

These transfer degree programs are described on the following pages.

NOTE: Transfer requirements vary for different majors and/or for different four-year colleges and universities. In some cases, an associate degree equals the first two years of a bachelor's degree, while in other cases, an associate degree may not be necessary to transfer. Therefore, it's very important for students to meet with an advisor or counselor early on to make sure they're enrolling in classes that will transfer. Students are also encouraged to select as soon as possible the four-year college or university where they'll complete their bachelor's degree as well as their major area of study.

## Degree Graduation Requirements

Credentials
Each graduation candidate must have on file in the admissions office the following documents.

1. A transcript of all high school work or scores from the General Education Development (GED) Test or state-required documentation for home-school graduates.

2. Transcripts of all prior college work.

NOTE: High school transcripts are not required from students who have successfully completed 15 semester hours of credit at another accredited college or university.

Scholarship
Each graduate must achieve a minimum MCC 2.0 grade point average on a four-point grading scale.

Enrollment
Each graduate must meet one of the following requirements:

1. They must complete at least 15 credit hours at an MCC campus and be enrolled during the academic year they qualify for a degree.

2. They must complete a minimum of 56 credit hours at an MCC campus if they are not enrolled during the academic year they qualify for a degree.

## Total Credits

Each MCC graduate must be successfully complete at least 62 credit hours, although some degrees require more. (See specific requirements on the following pages.) Students earning any of the five associate degrees offered by MCC must take several general education courses. For the Associate in Arts degree, at least 62 credits are required -- 42 of them in general education courses and 17 hours in electives. The Associate in Computer Science, Associate in Engineering, and Associate in Science also require an area of specialization. In addition to these general education and specialization courses, students must take electives that will bring their total number of credits up to the amount required for the degree. Only courses numbered 100 or higher can be applied toward the degree.

Students who plan to earn a bachelor's degree in certain fields, such as education or nursing, are required to take very specific courses. MCC has negotiated many transfer and articulation agreements with four-year universities and colleges that outline a specific program of study for successful transfer. Students should meet with an advisor or counselor for transfer information and assistance in selecting the right classes. Similarly, students who transfer to MCC from another accredited college or university are encouraged to meet with an advisor or counselor to determine how many of their previous credits will transfer and which classes they will still need to take. Visit MCC's website at www.mcckc.edu for more information.

## State Requirement

Missouri law states that all college or university graduates should complete a course covering the federal and state constitutions as well as American history and government. Students who transfer from our-of-state schools should check with the MCC counseling or development center to find out how they can meet this requirement.

## Application for a Degree

The semester before completing all of their degree requirements, prospective MCC graduates must file an application for receiving their degrees with the admissions/records office. Once the form is filed, students will receive an evaluation and additional information. Visit the admissions/records page at www.mcckc.edu for more information.

# The Associate in Arts Degree

MCC's Associate in Arts degree generally provides the first two years of college work a student might complete at a four-year college or university. The program includes 42 hours of general education courses, as well as enough electives to reach the required 62 credit hours.

Students who plan to earn an Associate in Arts degree should meet with an advisor or counselor to make sure they're taking the right classes. This degree prepares them for further study in any of the following areas:

| | |
|---|---|
| Art | Mass Communications |
| Biology | Mathematics |
| Business | Music |
| Chemistry | Nursing |
| Criminal Justice | Philosophy |
| Economics | Physical Education |
| Education | Physics |
| English | Political Science |
| Foreign Language | Psychology |
| Geography | Social Work |
| Geology | Sociology |
| History | Speech and Theater Arts |
| Human Services | Teacher Education |
| Journalism | |

## Degree Requirements

To receive an Associate in Arts degree, students must complete the following:

1. The graduation requirements for transfer degrees listed on page 26.

2. The general education requirements listed below.

3. Sufficient electives to bring their total number of credits to 62.
4. COLL 100    First Year Seminar

## General Education Requirements

The general education courses strengthen students' basic skills and provide them with knowledge to competently function in a variety of environments- school, work and day-to-day life. MCC's general education outcomes provide students with opportunities to cultivate competencies in effective communication and critical thinking; value learning as an ongoing, lifelong process; acquire quantitative literacy skills; understand the principles of natural and physical sciences; appreciate the human condition through the study of humanities; and achieve an awareness of social, political, and behavioral environments. For more information, go to

## http://mcckc.edu/gened

### American Institutions–6 credits

Rationale: The American Institutions requirement will enable students to understand and participate in the political institutions of the United States and Missouri, and to critically evaluate relationships among cultural, historical, and social environments. Such study will also enhance students' communication, critical thinking, and problem solving skills.

Complete two courses from the following:
(One must be HIST.)
HIST 120    United States History to 1865
HIST 121    United States History Since 1865
POLS 135    Introduction to Political Science
POLS 136    Introduction to American National Politics
POLS 137    Introduction to State and Local Politics

If a student has not completed one course which is the equivalent of HIST 120, HIST 121, POLS 135, POLS 136, or POLS 137 at a Missouri institution of higher education, the student must arrange with his/her home MCC college to satisfy the Missouri Constitution requirement either through additional course work or special exam.

### Communications–9 credits

Rationale: The Communications requirement will provide students with opportunities to practice and hone active listening, effective speaking, analytical reading, and purposeful writing. Students will draw on analytical and creative thought processes to find and retrieve reliable information, evaluate the relevance of source material, synthesize and draw conclusions from ideas, reflect upon their own and others' ideas and experiences, and conceptualize new ways of perceiving ideas. They will design carefully reasoned and creative presentations, both spoken and written.

Complete the following:
ENGL 101    Composition and Reading I and
ENGL 102    Composition and Reading II and
SPDR 100    Fundamentals of Speech or
SPDR 102    Fundamentals of Human Communication

### Humanities–9 credits

Rationale: The Humanities requirement will engage students in content and activities in which they must demonstrate their ability to deal with abstractions, complexities, and subtleties of thought and language, and to understand the aesthetic value of human creativity. Students will develop intellectual agility that allows for lifelong learning, adaptability, and appreciation of differences.

Complete one 3-credit course in each of any three different areas. One of the courses must be in literature or philosophy.

**Art History – any course**
**Literature – any course**
**Foreign Language – any course (101 or above)**
SIGN 101    Conversational American Sign Language I
SIGN 102    Conversational American Sign Language II

**History**
HIST 133    Foundations of Western Civilization
HIST 134    Modern Western Civilization II

**Humanities – any course**

**Music**
MUSI 108    Music Appreciation
MUSI 116    Evolution of Jazz
MUSI 160    Music of the World's Cultures

**Philosophy – any course**

**Speech and Drama**
SPDR 103    Interpersonal Communication
SPDR 104    Discussion and Group Leadership
SPDR 106    Theater Appreciation
SPDR 110    Argumentation and Debate
SPDR 112    Oral Interpretation of Literature
SPDR 114    Theater and Western World
SPDR 128    Introduction to Film
SPDR 133    Intercultural Communication
SPDR 228 African Film

**Mass Communications**
MSCM 112 Introduction to Modern Communications

# Career & Technical Degrees & Certificates

## Certificates

In addition to two-year associate degrees, Metropolitan Community College awards certificates to students who complete certain short-term career and technical programs. Some of the same certificates can only be completed at certain campuses.

## Associate in Applied Science Degree

MCC also awards Associate in Applied Science degrees. Some of the degrees can only be completed at certain campuses.

## Graduation Requirements for A.A.S. Degrees

Credentials

Each graduation candidate must have on file in the admissions office the following documents:

1. A transcript of all high school work or scores from the General Education Development (GED) test or state-required documentation for home-school graduates.

2. Transcripts of all prior college work.

NOTE: If a student has successfully completed 15 semester hours at another accredited college or university, then high school transcripts are not required.

Scholarship

Each graduate must achieve a minimum MCC 2.0 grade point average on a four-point grading scale.

Enrollment

Each graduate must meet one of the following requirements:

1. They must complete at least 15 credit hours at an MCC campus and be enrolled during the academic year they qualify for a degree or certificate.

2. They must complete a minimum of 56 credit hours at an MCC campus if they are not enrolled during the academic year they qualify for a degree.

### Total Credits

Graduates must successfully complete a course of study that requires at least 62 credit hours for an Associate in Applied Science degree.

Each degree includes both general education requirements and specialized requirements. Some programs also require general education or other electives to bring students' total credits to the number needed for a degree. A minimum of 18 credit hours of general education is required for an A.A.S. degree. Within these 18 credit hours, all A.A.S. degrees will have nine credit hours in Communications and American Institutions. The remaining nine credit hours will provide students with educational experiences to complement MCC's established general education components.

**A.A.S. General Education Core Curriculum**

| | |
|---|---|
| ENGL 101 Composition & Reading I | 3 |
| SPDR 100 Fundamentals of Speech or | |
| SPDR 102 Fundamentals of Human Communications | 3 |
| One of the following American Institutions courses: | |
| HIST 120 United States History to 1865 | |
| HIST 121 United States History Since 1865 | |
| POLS 135 Introduction to Political Science | |
| POLS 136 Introduction to American National Politics | |
| POLS 137 Introduction to State and Local Politics | 3 |
| Any course(s) numbered 100 or above from the following disciplines: | |
| ART, ANTH, ECON, ENGL, Foreign Language, | |
| GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | 3-6 |
| Any course(s) numbered 100 or above from the following disciplines: | |
| BIOL, CHEM, GEOG (104 &110), GEOL, MATH, PHSC, PHYS | 3-6 |
| **Minimum Total General Education Credit Hours** | **18** |

Only courses numbering 100 or higher can be used to earn credit toward degrees and certificates. Students who transfer credits to MCC from another accredited college or university should meet with an advisor or counselor to make sure they have taken the right courses.

**State Requirement**

Missouri law states that all college or university graduates should complete a course covering the federal and state constitutions as well as American history and government. Students who transfer from out-of-state schools should check with the MCC counseling or development center to find out how they can meet this requirement.

**Application for a Degree**

The semester before completing all of their degree requirements, prospective MCC graduates must file an application for receiving their degrees with the admissions/records office. Once the form is filed, students will receive an evaluation and additional information. Visit the admissions/records page at www.mcckc.edu for more information.

## Accreditation

The Metropolitan Community College District—including Blue River , Longview, Maple Woods, Penn Valley and Business & Technology —is accredited by the Higher Learning Commission of the North Central Association. For information on this accreditation association, contact the Commission online at www.ncahigherlearningcommission.org or by phone at 312-263-0456. To review MCC's accreditation materials, please call (816) 604-1000.

In addition to institutional accreditation, many programs have individiual accreditations. Please check program websites for additional information.

## Program Eligibility

In addition to the requirements for admission to the college, students must meet specific conditions before they may enroll in certain Career and Technical programs. For many of these, a student must make application and be accepted for the program. Information about how to apply for these programs is provided on the program websites and further information is available from academic advisors or counselors.

| Program | College | Application Information |
| --- | --- | --- |
| Dental Assisting | MCC-Penn Valley | www.mcckc.edu/dentalassisting |
| Line Technician | MCC-Business & Technology | www.mcckc.edu/linetech |
| Fire Academy | MCC-Blue River | www.mcckc.edu/fireacademy |
| Ford Automotive Student Service Educational | MCC-Longview | www.mcckc.edu/automotive |
| General Motors Automotive Service Educational | MCC-Longview | www.mcckc.edu/automotive |
| Health Information Technology | MCC-Penn Valley | www.mcckc.edu/healthtech |
| Occupational Therapy Assistant | MCC-Penn Valley | www.mcckc.edu/occupationaltherapy |
| Paramedic | MCC-Penn Valley | www.mcckc.edu/emt |
| Physical Therapist Assistant | MCC-Penn Valley | www.mcckc.edu/physicaltherapy |
| Police Academy | MCC-Blue River | www.mcckc.edu/policescience |
| Practical Nursing | MCC-Penn Valley | www.mcckc.edu/pvnursing |
| Professional Nursing | MCC-Penn Valley | www.mcckc.edu/pvnursing |
| Radiologic Technology | MCC-Penn Valley | www.mcckc.edu/ radiology |
| Respiratory Care | MCC-Penn Valley/ JCCC | www.mcckc.edu/respiratorycare |
| Surgical Technology | MCC-Penn Valley | www.mcckc.edu/surgicaltech |
| Veterinary Technology | MCC-Maple Woods | www.mcckc.edu/veterinary |

# Career Clusters

**Biotechnology**
**Dental Assisting**
**Health Information Technology**
**Occupational Therapy Assistant**
**Paramedic**
**Physical Therapist Assistant**

**Polysomnography/ Sleep Technology**
**Practical Nursing**
**Professional Nursing**
**Radiologic Technology**
**Respiratory Care**
**Surgical Technology**

**Apparel and Textiles**
**Audio Engineering**
**Graphic Media**
**Foreign Language Interpreting**
**Graphic Design**
**Interior Design**
**International Studies**
**Music Technology**

**Apprenticeships- Industrial Technology**
**Automotive Technology**
**Computer Aided Drafting and Design Technology**
**Computer integrated Machining and Manufacturing**
**Construction Management**
**Energy Efficiency**
**Engineering Technology**

**Heating, Ventilation, Air Conditioning & Refrigeration**
**Industrial Technology**
**Land Surveying**
**Lineman**
**Military Technology**
**Photovoltaics**
**Welding**

### Health Services
Health Path

### Industrial & Engineering Technology
Building & Fixing Path

### Arts & Communication
Creative Path

## Foundation Knowledge & Skills

### Human Services
Helping Path

### Business, Management & Technology
Business Path

### Natural Resources Agriculture
Nature Path

**Child Growth and Development**
**Criminal Justice**
**Fire Science Technology**
**Forensic Chemistry**
**Hospitality Management**
**Human Services**
**Mortuary Science**
**Occupational Education**
**Paralegal Practice**

**Business**
**Computer Science and Information Systems**
**Game Development**
**Geographic Information Systems**
**Railroad Operations Technology**

**Environmental Health and Safety Technology**
**Grounds and Turf Management**
**Sustainable Agriculture**
**Veterinary Technology**

## Career Paths
Missouri has identified six Career Paths as a way to help you become aware of and explore careers in a logical and meaningful way. Career Paths are a good starting point for your career exploration.

## Career Clusters
Within the six Career Paths are 16 Career Clusters to further help with career exploration and career planning.

## Mathematics– 3 credits

Rationale: The Mathematics requirement will enhance the students' ability to think critically; use mathematics to solve problems; use quantitative processes to analyze, evaluate, and interpret solutions; and communicate ideas using mathematical language and symbols.

Complete the following:

    MATH 119  College Mathematics or
               higher-numbered MATH course

## Natural Sciences–9 credits

Rationale: The Natural Sciences requirement will enable students to demonstrate understanding of natural environments and methods for gaining such knowledge including the scientific method and empirical methods of scientific inquiry.

Complete two laboratory sciences—one in biological science and one in physical science. The physical sciences include the following disciplines: chemistry, geology, physical geography, meteorology and physics.

## Social Sciences–6 credits

Rationale: The Social Sciences requirement will help students develop a more complete understanding of the social environment and broaden social and historical knowledge bases. Completion of this requirement will enhance students' skills in critical thinking, problem solving and communication.

Complete one course from two different areas. Courses selected for the American Institutions or Humanities requirement will not fulfill the Social Science requirement.

**Anthropology - any course**
**Economics - any course**
**Geography**
    GEOG 105  World Geography
    GEOG 111  Geography of the Western World
    GEOG 112  Geography of the Eastern World
    GEOG 113  Cultural Geography
    GEOG 114  Introduction to Geography
    GEOG 207  Geography of the U.S. and Canada
**History - any course**
**Social Sciences - any course**
**Political Science - any course**
**Psychology - any course**
**Sociology - any course**

The above requirements constitute the 42-credit hour block that upon completion will transfer by state policy in its entirety to any public college or university in Missouri and to those private colleges or universities that are signatories to the Missouri Credit Transfer Agreement.

## Other Associate in Arts Degree Requirements
### Computer–3 credits

Rationale: The Computer Science requirement will enable students to better understand the effect of computer-related technologies on society; to recognize responsible uses of computer-related technology; to apply these technologies in communication, solving problems, managing information, and thinking critically; to enhance general academic studies and business productivity; and to support life-long learning.

Complete the following:

    CSIS 110   Technology and Information Management or
               higher-numbered CSIS course

## Electives–17 credits

Rationale: Electives will prepare students for a life of learning by expanding choices and enriching possibilities. These electives encourage a wide range of courses that explore insights into several fields of inquiry, develop an active understanding of the natural world, and allow an opportunity to apply communication skills.

Complete 17 credits of electives to total a minimum of 62 hours.
• Courses numbered 100 or above may be applied to bring the total number of credit hours to the minimum of 62 credit hours required for the degree. The student may apply up to four hours of credit selected from music performance and up to four hours of credit from physical education activity courses.

**Total credits required for the A.A. degree          63**

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**Student Participation in Assessment of Academic Achievement**

MCC is committed to increasing student learning by continuous improvement of its curriculum, instruction, support services, and other institutional practices. The basis for improvement efforts are the results of MCC's program to assess student academic achievement.

Students will be asked, from time to time during their academic careers at MCC, to participate in various assessments of student learning, which may include state or national tests, portfolios, or other college assessment instruments. Students are expected to participate in these assessments as a responsibility of their enrollment in MCC Campuses.

**Statement of Ethical Conduct and Assessment.**

During the development of MCC's Plan For Assessing Student Academic Achievement, faculty wanted an assurance that the assessment program would focus on those issues associated with teaching, learning and curriculum revision. It was important for all constituent groups to know that assessment efforts and analysis and reporting of data generated by these efforts are conducted in ways that preserve high professional and ethical standards and that promote the best interests of students. The following is MCC's ethical statement:

Metropolitan Community College recognizes that the activities associated with assessment must be conducted in an ethical and professional manner. Information, data, and assessment activities designed to present an aggregate picture of MCC shall in no way be used to evaluate individual students or faculty. Also, students, faculty, and staff associated with assessment activities or projects will be treated in a manner that follows accepted practices for dealing with human subjects. The MCC assessment initiatives are designed and conducted so as to improve teaching and learning as well as overall institutional improvement.

# The Associate in Arts Degree

## Associate in Arts Degree

| COLL 100     First Year Seminar | 1 | | |
|---|---|---|---|
| **General Education Requirements** | Credits | Semester Taken | Prerequisites |
| American Institutions: *(2 courses--one must be HIST)* | | | |
| HIST 120, 121, POLS 135, 136, 137 | 6 | | |
| Communications: | | | |
| ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | 3 | | ENGL 101 |
| SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| Mathematics: | | | |
| MATH 119: College Mathematics or higher | 3 | | MATH 110 or appropriate placement test score |
| Humanities: *(3 courses, 3 areas of study, 1 course must be Lit. or Phil.)* | | | |
| Art History or ART 108 | 3 | | |
| Foreign Language 101 or higher or SIGN 101 or 102 | 3-5 | | |
| HUMN | 3 | | |
| Literature | 3 | | |
| MSCM 112 | 3 | | See Courses section of this catalog for individual course prerequisites. |
| MUSI 108, 116 or 160 | 3 | | |
| PHIL | 3 | | |
| SPDR 103, 104, 106, 110, 112, 114, 128, 133 or 228 | 3 | | |
| HIST/HUMN 133 or 134 | 3 | | |
| Natural Sciences: *(2 courses, 1 Biological and 1 Physical)* | | | |
| BIOL (Must include laboratory) | 5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM, GEOG, GEOL (excluding GEOL 225), or PHYS (Must include laboratory) | 4-5 | | |
| Social Sciences: *(2 courses, 2 areas of study)* | | | |
| ANTH | 3 | | |
| ECON | 3 | | |
| GEOG (excluding 104,110 and GIS Courses) | 3 | | |
| HIST | 3 | | See Courses section of this catalog for individual course prerequisites. |
| POLS | 3 | | |
| PSYC | 3 | | |
| SOCI | 3 | | |
| SOSC | 3 | | |
| Total General Education Courses | 42 | | |
| Computer Science: | | | |
| CSIS 110 or higher CSIS course or credit by examination | 3 | | |
| Electives: (courses must be numbered 100 or higher) The student may apply up to four hours of credit selected from music performance and up to four hours of credit from physical education activity courses. | 17 | | |
| **Total Credit Hours Required** | **63** | | |

- All courses must be at least 100 level or higher
- Courses can only be used once to meet degree requirements

# The Associate in Arts Business Degree

The Associate in Arts Business degree offers an MCC student the opportunity to transfer seamlessly into a four-year Missouri college or university as a junior, and to achieve his or her Bachelor's degree in Business with two more years of college work. Because there are slight variations in the requirements for Business credit at receiving institutions, students are advised to check with the school to which they plan to transfer or speak with an MCC advisor to make sure they are taking the right classes.

## Associate in Arts Business

| COLL 100      First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| American Institutions (2 courses-- one must be HIST) | | | |
| American Institutions: *(2 courses--one must be HIST)* | 3 | | |
| HIST 120, 121, POLS 135, 136, 137 | 3 | | |
| Communications: | | | |
|     ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
|     ENGL 102 | 3 | | ENGL 101 |
|     SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| Mathematics: | | | |
|     MATH 119: College Mathematics or higher | 3 | | MATH 110 or appropriate placement test score |
| Humanities: *(3 courses, 3 areas of study, 1 course must be Lit. or Phil.)* | | | |
|     Art History or ART 108 | 3 | | |
|     Foreign Language 101 or higher or SIGN 101 or 102 | 3-5 | | |
|     HUMN | 3 | | |
|     Literature | 3 | | See Courses section of this catalog for individual course prerequisites. |
|     MSCM 112 | 3 | | |
|     MUSI 108, 116 or 160 | 3 | | |
|     PHIL | 3 | | |
|     SPDR 103, 104, 106, 110, 112, 114, 128, 133 or 228 | 3 | | |
|     HIST/HUMN 133 or 134 | 3 | | |
| Natural Sciences: *(2 courses, 1 Biological and 1 Physical)* | | | |
|     BIOL (Must include laboratory) | 5 | | See Courses section of this catalog for individual course prerequisites. |
|     CHEM, GEOG, GEOL (excluding GEOL 225), or PHYS (Must include laboratory) | 4-5 | | |
| Social Sciences: | | | |
|     ECON 210 (required) | 3 | | |
|     One course from the following: | | | |
|     GEOG (excluding 104,110 and GIS Courses) | 3 | | |
|     HIST | 3 | | |
|     POLS | 3 | | |
|     PSYC | 3 | | |
|     SOCI or ANTH | 3 | | |
|     SOSC | 3 | | |
| Total General Education Courses | 42 | | |
| Computer Science | | | |
|     CSIS 110 or higher CSIS course or Credit by Examination | 3 | | |
| Required Business Electives *(12 credits)* | | | |
|     BSAD 101 Principles of Accounting I | 3 | | |
|     BSAD 102 Principles of Accounting II | 3 | | BSAD 101 or two years of high school accounting |
|     BSAD 270 Legal Environments of Business | 3 | | |
|     ECON 211 Principles of Economics | 3 | | MATH 40 or 40L or a satisfactory score on the placement test |
| Required Electives | | | |
|     MATH 115 Statistics | 3 | | MATH 110 or satisfactory score on Math placement test |
|     Business Elective (course must be numbered 100 or higher) | 3 | | |
| Working closely with both campus advisors and MCC business faculty is imperative when selecting electives. Electives will vary based on transfer institution and 4-year degree plan. | | | |
| Total Credit Hours Required | 64 | | |
| All courses must be at least 100 level or higher. Courses can only be used once to meet degree requirements | | | |
| | | | |

# The Associate in Arts Criminal Justice Degree

The Associate in Arts in Criminal Justice degree offers an MCC student the opportunity to transfer seamlessly into a four-year Missouri college or university as a junior, and to achieve his or her Bachelor's degree in Criminal Justice with two more years of college work. Because there are slight variations in the requirements for Criminal Justice credit at receiving institutions, students are advised to check with the school to which they plan to transfer or speak with an MCC advisor to make sure they are taking the right classes.

## Associate in Arts Criminal Justice Degree

| COLL 100     First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| American Institutions: *(2 courses--one must be HIST)* | | | |
| HIST 120, 121, POLS 135, 136, 137 | 6 | | |
| Communications: | | | |
| ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | 3 | | ENGL 101 |
| SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| Mathematics: | | | |
| MATH 119: College Mathematics or higher | 3 | | MATH 110 or appropriate placement test score |
| Humanities: *(3 courses, 3 areas of study, 1 course must be Lit. or Phil.)* | | | |
| Art History or ART 108 | 3 | | See Courses section of this catalog for individual course prerequisites. |
| Foreign Language 101 or higher or SIGN 101 or 102 | 3-5 | | |
| HUMN | 3 | | |
| Literature | 3 | | |
| MSCM 112 | 3 | | |
| MUSI 108, 116 or 160 | 3 | | |
| PHIL | 3 | | |
| SPDR 103, 104, 106, 110, 112, 114, 128, 133 or 228 | 3 | | |
| HIST/HUMN 133 or 134 | 3 | | |
| Natural Sciences: *(2 courses, 1 Biological and 1 Physical)* | | | |
| BIOL (Must include laboratory) | 5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM, GEOG, GEOL (excluding GEOL 225), or PHYS (Must include laboratory) | 4-5 | | |
| Social Sciences: *(2 courses, 2 areas of study)* | | | |
| ANTH | 3 | | See Courses section of this catalog for individual course prerequisites. |
| ECON | 3 | | |
| GEOG (excluding 104,110 and GIS Courses) | 3 | | |
| HIST | 3 | | |
| POLS | 3 | | |
| PSYC | 3 | | |
| SOCI | 3 | | |
| SOSC | 3 | | |
| Total General Education Courses | 42 | | |
| CSIS 110 or higher CSIS course or credit by examination | 3 | | |
| Criminal Justice Electives (must take 6 of the 7 courses) | | | |
| CRJU 101     Introduction to Criminal Justice | 3 | | |
| CRJU 105     American Corrections | 3 | | CRJU 101 |
| CRJU 165     Criminology | 3 | | |
| CRJU 168     Juvenile Delinquency | 3 | | |
| CRJU 200     Internship in Criminal Justice | 3 | | The student must complete 15 hours of Criminal Justice including CRJU 101 before taking this course. |
| CRJU 203     Criminal Inverstigations | 3 | | |
| CRJU 223     Criminal Law | 3 | | |
| | | | |
| **Total Credit Hours Required** | **64** | | |

- All courses must be at least 100 level or higher
- Courses can only be used once to meet degree requirements

# The Associate in Arts Teaching Degree

The Associates in Arts in Teaching (AAT) is a pre-professional degree that prepares students to transfer to a four-year college or university offering a Bachelor's Degree in Teacher Education. The AAT is a state-wide approved program and when completed in its entirety meets the first 2 years certification requirements for individuals pursuing either an early childhood, elementary or secondary education degree.

Degree Requirements

In order to receive the degree of AAT, students must complete the required courses below, obtain at least state required scores on the C-BASE, and earn a minimum 2.5 GPA. Because requirements may vary, students should consult the School of Education at the four-year transfer institution. In addition to verifying specific university minimums, education students should explore which elective courses will be accepted.

All education courses are open to both degree seeking and non-degree seeking students. For a complete list of education courses, refer to the Education section of the Course Descriptions.

## Associate in Arts Teaching Degree

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **General Education Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| American Institutions: *(2 courses, one must be HIST)* | | | |
| HIST 120, 121, POLS 135, 136, 137 | 6 | | |
| Communications: | | | |
| ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | 3 | | ENGL 101 |
| SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| Mathematics: | | | |
| MATH 119: College Mathematics or higher | 3 | | MATH 110 or appropriate placement test score |
| Humanities: *(3 courses, 3 areas of study, 1 course must be Lit. or Phil.)* | | | |
| Art History or ART 108 | 3 | | |
| Foreign Language 101 or higher or SIGN 101 or 102 | 3-5 | | |
| HUMN | 3 | | |
| Literature | 3 | | See Courses section of this catalog for individual course prerequisites. |
| MSCM 112 | 3 | | |
| MUSI 108, 116 or 160 | 3 | | |
| PHIL | 3 | | |
| SPDR 103, 104, 106, 112, 114, 128, 133 or 228 | 3 | | |
| HIST/HUMN 133 or 134 | 3 | | |
| Natural Sciences: *(2 courses, 1 Biological and 1 Physical)* | | | |
| BIOL (Must include laboratory) | 5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM, GEOG, GEOL, PHYS, or PHSC (Must include laboratory) | 4-5 | | |
| Social Sciences: *(2 courses, 2 areas of study)* | | | |
| ANTH | 3 | | |
| ECON | 3 | | |
| GEOG (excluding 104,110 and GIS Courses) | 3 | | |
| HIST | 3 | | See Courses section of this catalog for individual course prerequisites. |
| POLS | 3 | | |
| PSYC | 3 | | |
| SOCI | 3 | | |
| SOSC | 3 | | |
| Total General Education Courses | 42 | | |
| Education | | | |
| EDUC 200 Foundations of Education | 3 | | ENGL 101 |
| EDUC 201 Teaching Profession with Field Experience | 3 | | ENGL 101 |
| EDUC 270 Educational Psychology | 3 | | PSYC 140 |
| EDUC 280 Technology for Teachers | 3 | | ENGL 101 |
| Electives: (courses must be numbered 100 or higher) Working closely with both campus advisors and MCC education faculty is imperative when selecting electives. Electives will vary based on transfer institution and 4 year degree plan. Additionally there are elective courses that will be extremely beneficial for passing the C-BASE exam.* (EDUC 285 Education of Exceptional Learners can be used as an elective.) | 8 | | |
| **Total Credit Hours Required** | **63** | | |

- All courses must be at least 100 level or higher
- Students must achieve a minimum GPA of 2.5
- Students must achieve minimum scores of 235 on each section of the C-BASE*
- Courses can only be used once to meet degree requirements
- We recognize that four-year transfer institutions may have additional requirements including higher GPA, higher C-BASE scores*, or additional courses that could be taken at the community college level. Students are encouraged to work closely with an advisor from the receiving institution so that they may understand and prepare to meet all entrance requirements.

*Missiouri Teacher Education requirements are changing. Please check with an advisor or education faculty for current information.

# The Associate in Computer Science Degree

The Associate in Computer Science (ACS) degree is a preprofessional program that prepares students to transfer to a four-year college or university. It should not be confused with the Associate in Applied Science degree in Computer Science and Information Systems that prepares students for immediate employment.

Because computer science requirements vary at each four-year college or university, students should check with the school they plan to transfer to or speak with an advisor or counselor to make sure they're taking the right classes.

There are two areas of concentration for the Associate in Computer Science degree.

1. Computer Science
2. Computer Information Systems

Degree Requirements

In order to receive the degree of Associate in Computer Science, the student must complete the requirements for all degrees listed under Degree Graduation Requirements and the course requirements listed below.

## A.C.S. Computer Science

| COLL 100     First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| American Institutions | | | |
| *Two of the following (one must be HIST):*<br>HIST 120     United States History to 1865<br>HIST 121     United States History Since 1865<br>POLS 135     Introduction to Political Science<br>POLS 136     Introduction to American National Politics<br>POLS 137     Introduction to State and Local Politics | 6 | | |
| Communications | | | |
| ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | 3 | | ENGL 101 |
| SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| Humanities (2 courses, 2 areas of study, 1 course must be Literature or PHIL) | | | |
| Art History | 6-8 | | See Courses section of this catalog for individual course prerequisites. |
| Foreign Language 101 or higher or SIGN 101 or 102 | | | |
| HUMN 133, 134 | | | |
| Literature | | | |
| MSCM 112 | | | |
| MUSI 108, 116, 160 | | | |
| PHIL | | | |
| SPDR 103, 104, 106, 110, 112, 114, 128, 133 | | | |
| HIST/HUMN 133 or 134 | | | |
| Natural Sciences (one lab course) | | | |
| BIOL, CHEM, GEOG, GEOL, PHYS (must include lab) | 5 | | See Courses section of this catalog for individual course prerequisites. |
| Social Sciences (one course) | | | |
| ANTH | 3 | | See Courses section of this catalog for individual course prerequisites. |
| ECON | | | |
| GEOG 105, 111, 112, 113, 114, 207 | | | |
| HIST | | | |
| POLS | | | |
| PSYC | | | |
| SOCI | | | |
| SOSC | | | |

## A.C.S. Computer Science (cont)

| Specific Program Requirements - Choose an Emphasis | | | |
|---|---|---|---|
| Computer Science Emphasis | | | 100100-100103 Revised 6/2013 (Summer 2013) |
| *Five of the following:*<br>CSIS 123　　Programming Fundamentals<br>CSIS 223　　Object-Oriented Programming<br>CSIS/MATH 141<br>　　　Discrete Structures for Computer Science I<br>CSIS 221　　Introduction to Computer Architecture<br>CSIS 233　　Web-Centric Programming<br>CSIS/MATH 241<br>　　Discrete Structures for Computer Science II<br>CSIS 265　　Graphical User Interface Programming<br>CSIS 271　　Data Structures and Algorithm Analysis | 15 | | MATH 40/40L or appropriate placement test score (CSIS 123)<br>MATH 110 and CSIS 123 (CSIS 223)<br>MATH 120 or 150 (CSIS /MATH 141)<br>CSIS 123 and MATH 120 (CSIS 221)<br>MATH 110 and CSIS 223 (CSIS 233)<br>MATH 141 and CSIS 223 (CSIS 241)<br>CSIS 223 (CSIS 265)<br>MATH 141 and CSIS 223 (CSIS 271) |
| *15 Credit Hours from the following:*<br>MATH 150　　Precalculus<br>MATH 180　　Analytic Geometry & Calculus I<br>MATH 190　　Analytic Geometry & Calculus II<br>MATH 210　　Analytic Geometry & Calculus III<br>MATH 230　　Differential Equations | 15 | | MATH 110 or appropriate placement test score (MATH 150)<br>MATH 130 or 150 (MATH 180)<br>MATH 180 (MATH 190)<br>MATH 190 or appropriate placement test score (MATH 210)<br>MATH 190 (MATH 230) |
| Electives:　　CSIS or General Education | 3 | | |
| Computer Information Systems Emphasis | | | 100100-100104 Revised 12/2004 (Fall 2005) |
| MATH 120　　College Algebra | 3 | | MATH 110 or appropriate placement test score |
| *15 Credit Hours from the following:*<br>CSIS 123　　Programming Fundamentals<br>CSIS 223　　Object-Oriented Programming<br>CSIS/MATH 141<br>　　　Discrete Structures for Computer Science I<br>CSIS 221　　Introduction to Computer Architecture<br>CSIS 233　　Web-Centric Programming<br>CSIS/MATH 241<br>　　Discrete Structures for Computer Science II<br>CSIS 265　　Graphical User Interface Programming<br><br>CSIS 271　　Data Structures and Algorithm Analysis | 15 | | MATH 40/40L or appropriate placement test score (CSIS 123)<br>MATH 110 and CSIS 123 (CSIS 223)<br>MATH 120 or 150 (CSIS /MATH 141)<br>CSIS 123 and MATH 120 (CSIS 221)<br>MATH 110 and CSIS 223 (CSIS 233)<br>MATH 141 and CSIS 223 (CSIS 241)<br>CSIS 223 (CSIS 265)<br>MATH 141 and CSIS 223 (CSIS 271) |
| Electives:　　General Education, BSAD or CSIS | 15 | | |
| **Total Credit Hours Required** | **63** | | |

# The Associate in Engineering Degree

Associate in Engineering
 Engineering .......................................... 65-71 Credits

The Associate in Engineering degree is a preprofessional program that prepares students to transfer to a four-year college or university offering a Bachelor of Science degree in Engineering. Most MCC students transfer to the University of Missouri-Columbia, the University of Missouri-Kansas City or the Missouri University of Science and Technology. Students should check the catalog of the school they plan to transfer to or speak with an engineering program advisor or counselor to make sure they're taking the right classes.

## Associate in Engineering

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | Composition and Reading II | 3 | | ENGL 101 |
| HIST 120<br>HIST 121 | United States History to 1865 *or*<br>United States History Since 1865 | 3 | | |
| ECON 210<br>POLS 135<br>POLS 136<br>POLS 137 | Macroeconomics *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Engineering Emphasis Specific Program Requirements | | | | |
| CHEM 111 | General College Chemistry I | 5 | | MATH 120 (or appropriate placement test score) or two units of high school algebra and CHEM 107 or high school chemistry (CHEM 111) |
| ENGR 101 | Intro to the Profession | 1 | | |
| ENGR 104<br>CSIS 123 | Programming for Engineers and Scientists* *or*<br>Programming Fundamentals | 3 | | MATH 120 and 130 or MATH 150 (ENGR 104)<br>MATH 40/40L or appropriate placement test score (CSIS 123) |
| ENGR 113<br>ETEC 152 | Engineering Design & Microcomputer Applications** *or*<br>Engineering Graphics & CADD I | 3-5 | | MATH 110 (ENGR 113)<br>MATH 40/40L (ETEC 152) |
| ENGR 229 | Statics | 3 | | MATH 190 and PHYS 220 |
| MATH 180 | Analytic Geometry & Calculus I | 5 | | MATH 130 or 150 |
| MATH 190 | Analytic Geometry & Calculus II | 5 | | MATH 180 |
| MATH 210 | Analytic Geometry & Calculus III | 5 | | MATH 190 or appropriate placement test score |
| MATH 230 | Differential Equations | 3 | | MATH 190 |
| PHYS 220 | Engineering Physics I | 5 | | Enrollment in or completion of MATH 190 |
| PHYS 221 | Engineering Physics II | 5 | | PHYS 220 and enrollment in or completion of MATH 210 |
| *Two of the following seven courses:*<br>CHEM 221   Organic Chemistry I<br>CHEM 222   Organic Chemistry II<br>ENGR 215   Engineering Statistics and Computation<br>ENGR 223   Thermodynamics and Heat Transfer<br>ENGR 230   Dynamics<br>ENGR 233   Circuit Analysis I<br>ENGR 240   Mechanics of Materials | | 6-10 | | CHEM 112 (CHEM 221)<br>CHEM 221 (CHEM 222)<br>MATH 190 (ENGR 215)<br>MATH 190 and PHYS 220 (ENGR 223)<br>ENGR 229 (ENGR 230)<br>ENGR 229 (ENGR 240)<br>PHYS 221 or concurrent enrollment (ENGR 233) |
| **Total Credit Hours Required** | | **65-71** | | |

*Students may substitute BIOL 101, CHEM 112, or SRVY 135 for ENGR 104.
** Students may substitute BIOL 101 or CHEM 112 for ENGR 113.

# The Associate in Science Degree

The Associate in Science degree program prepares students to transfer to a four-year college or university to major in either biology or chemistry. Because requirements vary at each four-year college or university, students should check with the school they plan to transfer to or an advisor or counselor to make sure they're taking the right courses.

Degree Requirements

In order to receive the Associate in Science degree, the student must complete the requirements, the general education requirements listed below and the specialized education requirements for either Biology or Chemistry.

## A.S. Biology

| | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| COLL 100     First Year Seminar | 1 | | |
| **General Education Requirements** | Credits | Semester Taken | Prerequisites |
| ENGL 101     Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102     Composition and Reading II | 3 | | ENGL 101 |
| *Two of the following:*<br>HIST 120     United States History to 1865 *or*<br>HIST 121     United States History Since 1865 *or*<br>POLS 135     Introduction to Political Science *or*<br>POLS 136     Introduction to American National Politics *or*<br>POLS 137     Introduction to State and Local Politics | 6 | | |
| SPDR 100     Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Humanitites Elective | 3 | | |
| **Specific Program Requirements** | | | |
| BIOL 104     General Botany | 5 | | |
| BIOL 106     General Zoology | 5 | | |
| BIOL Elective: At least 3 hours must be 200 or above. | 3-5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM 111     General College Chemistry I | 5 | | MATH 120 (or appropriate placement test score) or two units of high school algebra and CHEM 107 or high school chemistry |
| CHEM 112     General College Chemistry II | 5 | | CHEM 111 |
| CHEM 221     Organic Chemistry I *and*<br>CHEM 222     Organic Chemistry II<br>*or*<br>PHYS 130     General Physics I *and*<br>PHYS 131     General Physics II | 10 | | CHEM 112 (CHEM 221)<br>CHEM 221 (CHEM 222)<br>MATH 130 (PHYS 130)<br>PHYS 130 (PHYS 131) |
| MATH 115     Statistics *and*<br>MATH 120     College Algebra<br>*or*<br>MATH 180     Analytic Geometry and Calculus I | 5-6 | | MATH 110 or appropriate placement test score (MATH 115 & 120)<br><br>MATH 130 or 150 (MATH 180) |
| Electives | 3-6 | | See Courses section of this catalog for individual course prerequisites. |
| **Total Credit Hours Required** | **63-66** | | |

# The Associate in Science Degree

## A.S. Chemistry

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | Composition and Reading II | 3 | | ENGL 101 |
| HIST 120 United States History to 1865 **and** <br> HIST 121 United States History Since 1865 <br> ***or*** <br> *Two of the following:* <br> POLS 135 Introduction to Political Science <br> POLS 136 Introduction to American National Politics <br> POLS 137 Introduction to State and Local Politics | | 6 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| CHEM 111 | General College Chemistry I | 5 | | MATH 120 (or appropriate placement test score) or two units of high school algebra and CHEM 107 or high school chemistry |
| CHEM 112 | General College Chemistry II | 5 | | CHEM 111 |
| CHEM 221 | Organic Chemistry I | 5 | | CHEM 112 |
| CHEM 222 | Organic Chemistry II | 5 | | CHEM 221 |
| MATH 180 | Analytic Geometry & Calculus I | 5 | | MATH 130 or 150 |
| MATH 190 | Analytic Geometry & Calculus II | 5 | | MATH 180 |
| MATH 210 | Analytic Geometry & Calculus III | 5 | | MATH 190 |
| PHYS 220 | Engineering Physics I | 5 | | Enrollment in or completion of MATH 190 |
| PHYS 221 | Engineering Physics II | 5 | | PHYS 220 and enrollment in or completion of MATH 210 |
| Special Program Electives | | 4 | | See Courses section of this catalog for individual course prerequisites. |
| **Total Credit Hours Required** | | **65** | | |

# General Education

## General Education Certificate

| General Education Requirements | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| COLL 100    First Year Seminar | 1 | | |
| **American Institutions: *(2 courses--one must be HIST)*** | | | |
| HIST 120, 121, POLS 135, 136, 137 | 6 | | |
| **Communications:** | | | |
| ENGL 101 | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | 3 | | ENGL 101 |
| SPDR 100 or SPDR 102 | 3 | | ENGL 30 or appropriate placement test score |
| **Mathematics:** | | | |
| MATH 119: College Mathematics or higher | 3 | | MATH 110 or appropriate placement test score |
| **Humanities: *(3 courses, 3 areas of study, 1 course must be Lit. or Phil.)*** | | | |
| Art History or ART 108 | 3 | | See Courses section of this catalog for individual course prerequisites. |
| Foreign Language 101 or higher or SIGN 101 or 102 | 3-5 | | |
| HUMN | 3 | | |
| Literature | 3 | | |
| MSCM 112 | 3 | | |
| MUSI 108, 116 or 160 | 3 | | |
| PHIL | 3 | | |
| SPDR 103, 104, 106, 110, 112, 114, 128, 133 or 228 | 3 | | |
| HIST/HUMN 133 or 134 | 3 | | |
| **Natural Sciences: *(2 courses, 1 Biological and 1 Physical)*** | | | |
| BIOL (Must include laboratory) | 5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM, GEOG, GEOL (excluding GEOL 225), or PHYS (Must include laboratory) | 4-5 | | |
| **Social Sciences: *(2 courses, 2 areas of study)*** | | | |
| ECON | 3 | | |
| GEOG (excluding 104,110 and GIS Courses) | 3 | | |
| HIST | 3 | | |
| POLS | 3 | | |
| PSYC | 3 | | |
| SOCI *or* ANTH | 3 | | |
| SOSC | 3 | | |
| **Total Credit Hours Required** | **43** | | |

- All courses must be at least 100 level or higher
- Courses can only be used once to meet degree requirements

# International Studies

*Offered at MCC-Blue River, MCC-Longview, MCC-Maple Woods, MCC-Penn Valley*

This program is designed to enable students to develop a fundamental level of international and intercultural competence, and to prepare them to assume their role in a politically, economically and culturally interdependent world. The program is especially beneficial to students planning to transfer to four-year colleges and universities and to students desiring international education.

## International Studies Certificate

| COLL 100     First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| HUMN 103     Introduction to International Studies | 3 | | |
| GEOG 105     World Geography | 3 | | |
| One of the following Humanities courses: | | | |
| ART 108, ART 205, ENGL 150, ENGL 151, ENGL 167, ENGL 220, ENGL 221, ENGL 265, HUMN 140, HUMN 141, MUSI 160, PHIL 102 | 3 | | |
| One of the following History courses: | | | |
| HIST 133, HIST 134, HIST 145 | 3 | | |
| One of the following Social Science courses: | | | |
| ANTH 110, ECON 210, GEOG 111, GEOG 112, GEOG 113, POLS 234, SOSC 171 | 3 | | |
| One Foreign Language course 100 or above | 3-5 | | |
| One of the following Human Diversity courses: | | | |
| ENGL 152, ENGL 155, ENGL 265, HIST 140, MUSI 116, SOCI 164, SOCI 210, SPDR 228 | 3 | | |
| One elective from the following: | | | |
| BIOL 238, BIOL 239, SPDR 133 or a second Humanities, History, Science or Foreign Language course from the selected international courses above | 3-5 | | BIOL 101, 104, or 106 for BIOL 239 |
| **Total Credit Hours Required** | **25-29** | | |

# Apparel and Textiles

*Offered at MCC-Penn Valley*

A.A.S. Apparel and Textiles-
Design and Product Development .......... 66-67 Credits
A.A.S. Apparel and Textiles-
Merchandising and Marketing................. 66-67 Credits
Merchandising Entrepreneurship Certificate
............................................................31 Credits
Product Development and Design Certificate
............................................................31 Credits

This program leads to an Associate in Applied Science degree and prepares students for careers in design and illustration. Two certificates are also offered.

## A.A.S. Apparel and Textiles-Design and Product Development

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score. |
| HIST 120<br>HIST 121 | United States History to 1865 **or**<br>United States History since 1865 | 3 | | |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement test score. |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score. |
| Any Art History course. | | 3 | | |
| ART 110 | Drawing I | 3 | | |
| **Specific Program Requirements**<br>*Courses offered at MCC-Penn Valley* | | | | |
| APTX 130 | Fashion Illustration I and Technical Drawing | 3 | | |
| APTX 100 | Introduction to Apparel Studies | 3 | | |
| APTX 111 | Aesthetics and Design for Apparel and Textiles | 3 | | |
| APTX 112 | Apparel Construction | 3 | | |
| APTX 113 | Advanced Clothing Construction | 3 | | |
| APTX 118 | Costume History-Ancient Mesopotamia Through the Nineteeth Century | 3 | | |
| APTX 119 | Advertising and Promotion for Merchandising Environments | 3 | | |
| APTX 211 | Pattern Design-Flat Pattern | 3 | | |
| APTX 212 | Textiles | 3 | | |
| APTX 215 | Pattern Design-Draping | 3 | | |
| APTX 217 | 20th Century Costume History | 3 | | APTX 118 |
| APTX 220 | Merchandising I | 3 | | APTX 100, and MATH 100 or higher |
| APTX 221 | Merchandising II | 3 | | |
| APTX 225 | Pattern Design-CAD | 3 | | |
| APTX 250 | Computer Aided Fashion Illustration and Technical Drawing | 3 | | APTX 130 |
| APTX 275 | Portfolio Presentation | 3 | | APTX 211, APTX 215 |
| **Total Credit Hours Required** | | **66-67** | | |
| APTX 40 | Fundamentals of Apparel Construction<br>This course is recommended for those students who have no sewing experience. | 0-1 | | |

# Apparel and Textiles

## A.A.S. Apparel and Textiles-Merchandising and Marketing

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score. |
| HIST 120<br>HIST 121 | United States History to 1865 *or*<br>United States History since 1865 | 3 | | |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement test score |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score. |
| Any Art History course. | | 3 | | |
| ECON 210 | Macroeconomics | 3 | | |
| Specific Program Requirements | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 102 | Accounting Principles II | 3 | | BSAD 101 or 2 years of high school accounting |
| BSAD 205 | Marketing | 3 | | |
| BSAD 120 | Organizational Behavior | 3 | | |
| Choose one:<br>BSAD 109<br>BSAD 219<br>ECON 211 | Principles of Supervision *or*<br>Entrepreneurship or<br>Microeconomics* | 3 | | |
| APTX 100 | Introduction to Apparel Studies | 3 | | |
| APTX 111 | Aesthetics and Design for Apparel and Textiles | 3 | | |
| APTX 112 | Apparel Construction | 3 | | |
| APTX 113 | Advanced Apparel Construction | 3 | | |
| APTX 118 | Costume History - Ancient Mesopotamia Through the Nineteeth Century | 3 | | |
| APTX 119 | Advertising & Promotion for Merchandising Environments | 3 | | |
| APTX 212 | Textiles | 3 | | |
| APTX 217 | 20th Century Costume History | 3 | | APTX 118 |
| APTX 218 | Merchandising Field Experience | 3 | | APTX 119, 220 and 221 |
| APTX 220 | Merchandising I | 3 | | APTX 100, MATH 100 or higher |
| APTX 221 | Merchandising II | 3 | | |
| **Total Credit Hours Required** | | **66-67** | | |
| APTX 40 Fundamentals of Apparel Construction<br>This course is recommended for those students who have no sewing experience. | | 0-1 | | |
| *Transfer to University of Missouri: ECON 211 | | | | |

# Apparel and Textiles

## Merchandising Entrepreneurship Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| BSAD 101 Accounting Principles I | 3 | | |
| BSAD 205 Marketing | 3 | | |
| BSAD 219 Entrepreneurship | 3 | | |
| APTX 100 Introduction to Apparel Studies | 3 | | |
| APTX 111 Aesthetics and Design for Apparel and Textiles | 3 | | |
| APTX 119 Visual Merchandising | 3 | | |
| APTX 212 Textiles | 3 | | |
| APTX 218 Merchandising Field Experience | 3 | | APTX 119, 220 & 221 |
| APTX 220 Merchandising I | 3 | | APTX 100, MATH 100 or above |
| Elective: choose from list of courses below:<br>BSAD 109 Principles of Supervision<br>BSAD 120 Organizational Behavior<br>BSAD 204 Business Management | 3 | | |
| **Total Credit Hours Required** | **31** | | |

## Product Development and Design Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| APTX 130 Fashion Illustration and Technical Drawing | 3 | | |
| APTX 100 Introduction to Apparel Studies | 3 | | |
| APTX 111 Aesthetics and Design for Apparel and Textiles | 3 | | |
| APTX 112 Apparel Construction | 3 | | |
| APTX 113 Advanced Apparel Construction | 3 | | |
| APTX 211 Pattern Design - Flat Pattern | 3 | | |
| APTX 212 Textiles | 3 | | |
| APTX 215 Pattern Design - Draping | 3 | | |
| APTX 225 Pattern Design - CAD | 3 | | |
| APTX 275 Portfolio Presentation | 3 | | APTX 211, 215 |
| **Total Credit Hours Required** | **31** | | |

# Audio Engineering

*Offered at Kansas City Kansas Community College*
*Coordinated at MCC*

**A.A.S. Audio Engineering ...................... 62-65 Credits**
This is a terminal degree program for students who wish to find employment in a recording-related aspect of the music business or who wish to transfer to another school and pursue a bachelor's degree in a field such as music composition or music technology. Because requirements differ by institution, students wishing to transfer should check with the music faculty or the transfer institution regarding variations in this degree program.

Students must be accepted into the program by both MCC and KCKCC. The student is awarded the degree from KCKCC upon successful completion of all requirements.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Audio Engineering

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102<br>ENGL 215 | Composition and Reading II or<br>Technical Writing | 3 | | ENGL 101 |
| SPDR 100<br>SPDR 103 | Speech or<br>Interpersonal Communications | 3 | | ENGL 101 |
| PSYC 140<br>SOCI 160 | General Psychology *or*<br>Sociology | 3 | | |
| MATH 120 | College Algebra or higher | 3 | | MATH 110 or appropriate placement test |
| MUSI 108 | Music Appreciation | 3 | | |
| Specific Program Requirements<br>*Must be taken at Kansas City Kansas Community College* | | | | |
| HUDV 100/101 | Strategies for Excellence/Lifelong Learning | 1-2 | | |
| AUDIO 108 | Electronic Circuit Fundamentals | 3 | | |
| AUDIO 115 | Circuit Analysis 1 | 3 | | |
| AUDIO 110 | Music Technology 1 | 3 | | |
| AUDIO 130 | Music Business | 3 | | |
| AUDIO 150 | Live Sound Reinforcement 1 | 1 | | |
| AUDIO 151 | Live Sound Reinforcement 2 | 1 | | |
| AUDIO 170 | Lighting & Staging | 3 | | |
| AUDIO 230 | Multimedia Production | 3 | | |
| AUDIO 250 | Audio Recording 1 | 3 | | |
| AUDIO 255 | Audio Engineering Critical Listening | 1 | | |
| AUDIO 260 | Audio Recording 2 | 3 | | |
| AUDIO 270 | Audio Recording 3 | 3 | | |
| AUDIO 280 | Audio Engineering Portfolio 1 | 1 | | |
| AUDIO 281 | Audio Engineering Portfolio 2 | 1 | | |
| AUDIO 210<br>AUDIO 240<br>AUDIO 258 | Music Technology 2 *or*<br>Sound Editing & Synthesis *or*<br>Applied Audio for Media | 3 | | |
| Music Requirements | | | | |
| AUDIO 101<br>MUSC 111 | Audio Engineering Music Skills (at KCKCC) or<br>Music Theory 1 (at MCC or KCKCC) | 4 | | |
| AUDIO 103 | Audio Engineering Keyboard Skills (at KCKCC) or<br>Piano Class (at MCC or KCKCC) or<br>Applied Piano (at MCC or KCKCC) | | | |
| Natural and Physical Science Requirements | | | | |
| NSAC 130<br>PHYS 101 | Introductory Physics (at KCKCC) or<br>Introductory Physics (at MCC) | 3-5 | | |
| **Total Credit Hours Required** | | **62-65** | | |

# Automotive Technology

*Offered at MCC-Longview*

**A.A.S. Automotive Technology**

Collision Repair Technology ....................... 73 Credits
Ford/ASSET ......................................... 78-84 Credits
General Motors/ASEP .......................... 78-84 Credits
Industrial Mechanic .............................. 63-65 Credits
Mechanical .......................................... 68-74 Credits

**Certificates**

Automotive Service, Maintenance and Light Repair
...................................................... 16-20 Credits
Automotive Technology ............................. 50 Credits
Collision Repair Technology ....................... 44 Credits

Automotive Technology programs can lead to an Associate in Applied Science degree, but many students take classes for job enhancement or personal interest. Either way, our automotive classes prepare students for jobs in the automotive industry.

The *Mechanical Option* prepares students to work in dealerships, service centers, or independent repair facilities. The *Collision Repair Technology Option*, which includes courses offered by participating articulation agreement schools, prepares students to work as collision repair technicians.

Two additional degree options include *General Motors ASEP Option* and the *Ford ASSET Option*. (Note: These 2 programs have special admission requirements.)

The Automotive Technology Department also offers three certificate programs.

## A.A.S. Automotive Collision Repair Technology

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing *or* | 3 | | ENGL 101 |
| ENGL 102 | Composition and Reading II | | | |
| HIST 120 | United States History to 1865 *or* | 3 | | |
| HIST 121 | United States History since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 100 | Mathematics for Business | 3 | | MATH 20 or 20L or appropriate placement test score |
| PHYS 104 | Foundations of Physical Science *or* | 5 | | |
| PHYS 101 | Introductory Physics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Specific Program Requirements | | | | |
| BSAD 100 | Introduction to Accounting | 3 | | |
| BSAD 109 | Principles of Supervision | 3 | | |
| EHSS 100 | Intro to Environmental Health and Safety | 3 | | |
| AUTO 100 | Intro to Automotive Services | 2 | | |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| Specific Program Requirements *Provided by participating articulation agreement schools* | | | | |
| AUTO 120 | MIG and Structural Welding | 3 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 125 | Structural Analysis and Damage Repair | 6 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 130 | Non-Structural Analysis and Damage Repair | 6 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 135 | Plastics and Adhesives | 3 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 140 | Automotive Painting | 4 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 141 | Automotive Refinishing | 4 | | Accepted into the articulation program for Auto Collision Repair |
| **Total Credit Hours Required** | | **73** | | |
| The *Collision Repair Technology Option*, which includes courses offered by participating articulation agreement schools, prepares students to work as collision repair technicians. | | | | |

# Automotive Technology

## A.A.S. Ford/ASSET emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech *or* | 3 | | ENGL 30 or appropriate placement test score |
| SPDR 102 | Fundamentals of Human Communication | | | |
| Any course(s) numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI | | 3-6 | | |
| Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH, PHYS | | 3-6 | | |
| Minimum Total General Education Credit Hours | | 18 | | |
| **Ford/ASSET** | | | | |
| AUTO 100 | Introduction to Automotive Service | 2 | | |
| AUTO 105 | Cooperative Work Experience I | 1 | | Be enrolled in the Ford emphasis area, maintain a 2.0 GPA, and be approved by by a sponsoring dealer |
| AUTO 106 | Cooperative Work Experience II | 1 | | Be enrolled in the Ford emphasis area, maintain a 2.0 GPA, and be approved by by a sponsoring dealer |
| AUTO 107 | Cooperative Work Experience III | 1 | | Be enrolled in the Ford emphasis area, maintain a 2.0 GPA, and be approved by by a sponsoring dealer |
| AUTO 108 | Cooperative Work Experience IV | 1 | | Be enrolled in the Ford emphasis area, maintain a 2.0 GPA, and be approved by by a sponsoring dealer |
| AUTO 150 | Automotive Engine Repair | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 174 | Manual Drivetrain & Axles | 4 | | AUTO 100 or concurrent enrollment |
| AUTO 260 | Advanced Diagnosis | 6 | | Be a student in good standing in the Ford ASSET program |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| AUTO 272 | Automatic Transmissions and Transaxles | 6 | | AUTO 100, 166 and one of the following: AUTO 150, 171, 174, 276, 279, 280 |
| AUTO 276 | Automotive Engine Performance | 6 | | AUTO 100, 150 and 166 and concurrent enrollment or completion of AUTO 279 |
| AUTO 279 | Automotive Electronic Systems | 6 | | AUTO 100 and 166 |
| AUTO 280 | Diagnosis and Repair | 4 | | AUTO 100, 150, 166, 171, 174, 264 and 272 and concurrent enrollment or completion of AUTO 276 and 279. |
| **Total Credit Hours Required** | | **78-84** | | |

# Automotive Technology

## A.A.S. GM/ASEP emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| Any course(s) numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI | | 3-6 | | |
| Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH, PHYS | | 3-6 | | |
| Minimum Total General Education Credit Hours | | 18 | | |
| **GM/ASEP** | | | | |
| AUTO 100 | Introduction to Automotive Service | 2 | | |
| AUTO 105 | Cooperative Work Experience I | 1 | | Be enrolled in the GM emphais area, maintain a 2.0 GPA and be approved by sponsoring dealer. |
| AUTO 106 | Cooperative Work Experience II | 1 | | Be enrolled in the GM emphais area, maintain a 2.0 GPA and be approved by sponsoring dealer. |
| AUTO 107 | Cooperative Work Experience III | 1 | | Be enrolled in the GM emphais area, maintain a 2.0 GPA and be approved by sponsoring dealer. |
| AUTO 108 | Cooperative Work Experience IV | 1 | | Be enrolled in the GM emphais area, maintain a 2.0 GPA and be approved by sponsoring dealer. |
| AUTO 150 | Automotive Engine Repair | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 174 | Manual Drivetrain and Axles | 4 | | AUTO 100 or concurrent enrollment |
| AUTO 260 | Advanced Diagnosis | 6 | | Be a student in good standing in the General Motors ASEP program |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| AUTO 272 | Automatic Transmissions and Transaxles | 6 | | AUTO 100, 166 and one of the following: AUTO 150, 171, 174, 276, 279, 280 |
| AUTO 276 | Automotive Engine Performance | 6 | | AUTO 100, 150, 166 and concurrent enrollment or completion of AUTO 279 |
| AUTO 279 | Automotive Electronic Systems | 6 | | AUTO 100 and 166 |
| AUTO 280 | Diagnosis and Repair | 4 | | AUTO 100, 150, 166, 171, 174, 264 and 272 Concurrent or completion of AUTO 276 and 279 |
| **Total Credit Hours Required** | | **78-84** | | |

# Automotive Technology

## A.A.S. Automotive Industrial Mechanic Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech *or* | 3 | | ENGL 30 or appropriate placement test score |
| SPDR 102 | Fundamentals of Human Communication | | | |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| Any course(s) numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, SPAN 101, GEOG, (except 104 & 110), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI | | 3-5 | | |
| Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110) GEOL, MATH, PHYS | | 3 | | |
| Minimum Total General Education Credit Hours | | 18-20 | | |
| **Specific Program Requirements** | | | | |
| **Autmotive Industrial Mechanical** | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| WELD 100 | Introduction to Welding/Cutting Processes | 1 | | |
| AUTO 150 | Automotive Power Plants | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 170 | Automotive Braking Systems | 4 | | AUTO 100 or concurrent enrollment |
| AUTO 172 | Automotive Suspension and Steering | 4 | | |
| AUTO 174 | Manual Drivetrain and Axle | 4 | | concurrent enrollment or completion of AUTO 100 |
| AUTO 279 | Automotive Electronic Systems | 6 | | AUTO 100 and 166 |
| AUTO 160 Diagnosis and Repair or AUTO 176 Emission & Fuel Control System or AUTO 250 Diesel Diagnosis and Repair or AUTO 264 Air Conditioning or AUTO 272 Automatic Transmission and Transaxles | | 4-6 | | AUTO 150, 166, and 176 AUTO 150 and 166 AUTO 150 and 166 |
| Mechanic Apprenticeship *(Credit by Certification) | | 8 | | |
| **Total Credit Hours Required** | | **63-65** | | |
| * Federally approved Mechanic apprenticeship program that contains a minimum of 144 clock hours of classroom and instruction and 2000 clock hours of on-the-job training. Transcribed upon the completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Automotive Technology

## A.A.S. Automotive Technology Mechanical Emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech *or* | 3 | | ENGL 30 or appropriate placement test score |
| SPDR 102 | Fundamentals of Human Communication | | | |
| Any course(s) numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI | | 3-6 | | |
| Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH, PHYS | | 3-6 | | |
| Minimum Total General Education Credit Hours | | 18 | | |
| Specific Program Requirements | | | | |
| AUTO 100 | Introduction to Automotive Service | 2 | | |
| AUTO 150 | Automotive Engine Repair | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 174 | Manual Drivetrains and Axles | 4 | | AUTO 100 or concurrent enrollment |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| AUTO 272 | Automatic Transmissions and Transaxles | 6 | | AUTO 100, 166 and one of the following: AUTO 150, 171, 174, 276, 279, 280. |
| AUTO 276 | Automotive Engine Performance | 6 | | AUTO 100, 150, and 166 and concurrent enrollment or completion of AUTO 279 |
| AUTO 279 | Automotive Electronic Systems | 6 | | AUTO 100 and 166 |
| AUTO 280 | Diagnosis and Repair | 4 | | AUTO 100, 150, 166, 174, 264, and 272. Concurrent enrollment or completion of AUTO 276 and 279 |
| **Total Credit Hours Required** | | **68-74** | | |

The *Mechanical Option* prepares students to work as a technician in dealerships, service centers, independent garages or service stations.

# Automotive Technology

## Automotive Service, Maintenance and Light Repair Certificate

| Specific Program Requirements | | | |
|---|---|---|---|
| AUTO 100 | Introduction to Automotive Service | 2 | |
| AUTO 117 | Automotive Service Maintenance and Light Repair | 6 | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | AUTO 100 or concurrent enrollment |
| Any other course numbered 100 or above.<br>Note: Students desiring to become Honda Express Tech Certified must take AUTO 201 | | 2-6 | |
| **Total Credit Hours Required** | | **16-20** | |

## Automotive Technology Certificate

| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| AUTO 100 | Introduction to Automotive Service | 2 | | |
| AUTO 150 | Automotive Engine Repair | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 174 | Maunual Drivetrain and Axles | 4 | | AUTO 100 and 166 |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| AUTO 272 | Automatic Transmissions and Transaxles | 6 | | AUTO 100, 166, and one of the following: AUTO 150, 171, 174, 276, 279, 280. |
| AUTO 276 | Automotive Engine Performance | 6 | | AUTO 100, 150 and 166 and concurrent enrollment or completion of AUTO 279. |
| AUTO 279 | Automotive Electronic Systems | 6 | | AUTO 100 and 166 |
| AUTO 280 | Diagnosis and Repair | 4 | | AUTO 100, 150, 166, 171, 174, 264, and 272. Concurrent enrollment or completion of AUTO 276 and 279. |
| **Total Credit Hours Required** | | **50** | | |

## Collision Repair Technology Certificate

| Specific Program Requirements<br>*Provided by participating articulation agreement schools* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| AUTO 120 | MIG and Structural Welding | 3 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 125 | Structural Analysis and Damage Repair | 6 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 130 | Non-Structural Analysis and Damage Repair | 6 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 135 | Plastics and Adhesives | 3 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 140 | Automotive Painting | 4 | | Accepted into the articulation program for Auto Collision Repair |
| AUTO 141 | Automotive Refinishing | 4 | | Accepted into the articulation program for Auto Collision Repair |
| Specific Program Requirements | | | | |
| AUTO 100 | Introduction to Automotive Service | 2 | | |
| AUTO 166 | Automotive Electrical Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 171 | Automotive Chassis Systems | 6 | | AUTO 100 or concurrent enrollment |
| AUTO 264 | Automotive Air Conditioning | 4 | | AUTO 100 and 166 |
| **Total Credit Hours Required** | | **44** | | |

# Biotechnology

*Offered at Johnson County Community College*
*Coordinated at MCC*

A.S. Biotechnology ................................. 76-80 Credits
A.A.S. Biotechnology.............................. 69-71 Credits
    Biotechnology Certificate ................. 35-41 Credits

The Biotechnology Associate of Science degree program will prepare students who wish to pursue a baccalaureate degree in the biological sciences. Upon completion of this degree, students will be able to find entry-level or higher positions in the diverse field of biotechnology. Along with the basic and more advanced courses, students will take specialized courses in subjects such as laboratory safety and biotechnology methods. Students must be accepted into the program by both MCC and JCCC. The student is awarded the degree

from JCCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

The Biotechnology Associate in Applied Science degree program will prepare students to work in biotechnology laboratories associated with university medical centers, research institutions, and a variety of industrial applications. The biotechnology certificate is for students seeking employment in the biotechnology industry either in private or academic research laboratories. Students must be accepted into the program by both MCC and JCCC. The student is awarded the degree from JCCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.S. Biotechnology

| Specific Program Requirements<br>*Must be taken at one of the MCC Campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| CHEM 111 | General College Chemistry I | 5 | | MATH 120 or two units of high school Algebra and CHEM 107 or high school Chemistry |
| CHEM 112 | General College Chemistry II | 5 | | CHEM 111 |
| CHEM 221 | Organic Chemistry I | 5 | | CHEM 112 |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| HIST 133 | Foundation in Western Civilization | 3 | | |
| MATH 115 | Statistics | 3 | | MATH 110 or appropriate placement test score |
| PHYS 130 | General Physics I | 5 | | MATH 130 |
| PHYS 131 | General Physics II | 5 | | PHYS 130 |
| SOCI 160 | Introduction to Sociology ~ or | | | |
| SOCI 163 | Social Problems ~ or | | | |
| POLS 234 | Introduction to International Relations ~ | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | |
| HUMN | Electives | 3 | | See Courses section of this catalog for individual course prerequisites. |
| ECON/Social Science Electives | | 3 | | |
| PHED | Elective | 1 | | |
| BIOL 214 | Principles of Genetics | 4 | | BIOL 101 or BIOL 104 or BIOL 106 |
| *Must be taken at Johnson County Community College* | | | | |
| BIOL 135 | Principles of Cell & Molecular Biology* | 4 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| BIOL 150 | Biology of Organisms* | 5 | | |
| BIOT 160 | Introduction to Biotechnology* | 2 | | |
| BIOT 165 | Laboratory Safety* | 1 | | |
| BIOT 230 | Microbiology for Biotechnology | 5 | | |
| BIOT 260 | Biotechnology Methods* | 5 | | |
| BIOT 265 | Biotechnology Internship (Optional)* | 4 | | |
| **Total Credit Hours Required** | | **76-80** | | |

*Prerequisite/corequisite required    ~meets Cultural Diversity Requirement    *Optional courses do not qualify for in-state tuition rates as part of MCC/JCCCC requirement

**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, GERM 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 134, HIST 140,  HIST 150, HUMN 103, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128.
**Social Science and Economics Electives that will transfer from MCC to JCCC:**
ANTH 100, ANTH 110, ANTH 120, ECON 110, ECON 210, ECON 211, GEOG 111, GEOG 112, POLS 135, POLS 136, POLS 137, POLS 234, PSYC 140, SOCI 160, SOCI 163, SOCI 170, SOCI 220
**Health, Physical Education & Recreation Electives that will transfer from MCC to JCCC:**
DANC 100, DANC 111, DANC 121, DANC 122, EMS 100, PHED 105, PHED 106, PHED 107, PHED108, PHED 109, PHED 110, PHED 113, PHED 114, PHED 117, PHED 118, PHED 119, PHED 120, PHED 121, PHED 122, PHED 123, PHED 126, PHED 127, PHED 128, PHED 129, PHED 130, PHED 131, PHED 135, PHED 136, PHED 137, PHED 141, PHED 142, PHED 143, PHED 144, PHED 145, PHED 146, PHED 147, PHED 151, PHED 157, PHED 158, PHED 159, PHED 165, PHED 166, PHED 167, PHED 168, PHED 173, PHED 174, PHED 178, PHED 179, PHED 180

# Biotechnology

## A.A.S. Biotechnology

| Specific Program Requirements<br>*Must be taken at one of the MCC Campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| BIOL 109     Anatomy & Physiology | 6 | | BIOL 100 or CHEM 105 |
| CHEM 105     Introductory Chemistry for Health Sciences<br>*Note: CHEM 105 must be taken before BIOL 135, BIOT 160 and BIOT 165* | 5 | | |
| BIOL 214     Principles of Genetics | 4 | | BIOL 101 or BIOL 104 or BIOL 106 |
| CHEM 205     Organic Chemistry | 5 | | CHEM 105 or CHEM 111 |
| CSIS 115     Introduction to Microcomputer Applications | 3 | | |
| ENGL 101     Composition and Reading I | 3 | | |
| ENGL 215     Technical Writing | 3 | | ENGL 101 |
| MATH 103     Technical Mathematics I (or higher) | 3-5 | | MATH 40 or 40L |
| HUMN     Humanities Elective | 3 | | See Courses section of this catalog for individual course prerequisites. |
| ECON/Social Sciences/Economics Elective | 3 | | |
| PHED     Physical Education Elective | 1 | | |
| *Must be taken at Johnson County Community College* | | | |
| BIOL 135     Principles of Cell & Molecular Biology* | 4 | | See JCCC course descriptions in the Courses section of this catalog for individual course pre-requisites. |
| BIOL 145     Human Anatomy and Physiology Dissection* | 1 | | |
| BIOT 160     Introduction to Biotechnology* | 2 | | |
| BIOT 165     Laboratory Safety* | 1 | | |
| BIOT 260     Biotechnology Methods* | 5 | | |
| BIOT 265     Biotechnology Internship* | 4 | | |
| BIOT 230     Microbiology (JCCC)* | 3 | | |
| PHYS 133     Applied Physics* | 5 | | |
| **Total Credit Hours Required** | **69-71** | | |

**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, GERM 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 134, HIST 140, HIST150, HUMN 103, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128

**Health, Physical Education & Recreation Electives that will transfer from MCC to JCCC:**
DANC 100, DANC 111, DANC 121, DANC 122, EMS 100, PHED 105, PHED 106, PHED 107, PHED108, PHED 109, PHED 110, PHED 113, PHED 114, PHED 117, PHED 118, PHED 119, PHED 120, PHED 121, PHED 122, PHED 123, PHED 126, PHED 127, PHED 128, PHED 129, PHED 130, PHED 131, PHED 135, PHED 136, PHED 137, PHED 141, PHED 142, PHED 143, PHED 144, PHED 145, PHED 146, PHED 147, PHED 151, PHED 157, PHED 158, PHED 159, PHED 165, PHED 166, PHED 167, PHED 168, PHED 173, PHED 174, PHED 178, PHED 179, PHED 180

**Social Science and Economics Electives that will transfer from MCC to JCCC:**
ANTH 100, ANTH 110, ANTH 120, ECON 110, ECON 210, ECON 211, GEOG 111, GEOG 112, POLS 135, POLS 136, POLS 137, POLS 234, PSYC 140, SOCI 160, SOCI 163, SOCI 170, SOCI 220

*Prerequisite/corequisite required*

# Biotechnology

| Biotechnology Certificate | | | |
|---|---|---|---|
| Specific Program Requirements<br>*Must be taken at one of the MCC Campuses* | Credits | Semester Taken | Prerequisites |
| CHEM 105　　Introductory Chemistry for Health Sciences<br>*Note: CHEM 105 must be taken before BIOL 135, BIOT 160 and BIOT 165* | 5 | | |
| CHEM 205　　Organic Chemistry | 5 | | CHEM 105 or CHEM 111 |
| MATH 103　　Technical Mathematics I (or higher) | 3-5 | | MATH 40 or 40L |
| *Must be taken at Johnson County Community College* | | | |
| BIOL 135　　Principles of Cell & Molecular Biology* | 4 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| BIOT 160　　Introduction to Biotechnology* | 2 | | |
| BIOT 165　　Laboratory Safety* | 1 | | |
| BIOT 230　　Microbiology* (JCCC) | 5 | | |
| BIOT 260　　Biotechnology Methods* | 5 | | |
| PHYS 133　　Applied Physics* | 5 | | |
| BIOT 265　　Biotechnology Internship (Optional)* | 4 | | |
| **Total Credit Hours Required** | **35-41** | | |
| *\*Prerequisite/corequisite required* | | | |

# Business

*Offered at all Campuses*

A.A.S. Business

Accounting ................................................65 Credits
Logistics Management ..............................65 Credits
Management ..............................................65 Credits
Office Management ...................................65 Credits

This program offers an Associate in Applied Science degree with emphasis areas in accounting, logistics management, management and office management.

## A.A.S. Business Accounting Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ECON 210 | Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100<br>MATH 110 | Mathematics for Business *or*<br>Intermediate Algebra or higher | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| PSYC 140<br>SOCI 160 | General Psychology *or*<br>Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 204 | Business Management | 3 | | |
| BSAD 205 | Marketing | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement test score |
| BSAD 254<br>BSAD 255<br>BSAD 270 | Business Law I *or*<br>Business Law II *or*<br>Legal Environment of Business | 3 | | |
| CSIS 115 | Intro to Microcomputer Applications | 3 | | |
| Electives | Any course numbered 100 or above | 6 | | |
| **Specific Emphasis Requirements** | | | | |
| **Accounting** | | | | |
| BSAD 102 | Accounting Principles II | 3 | | BSAD 101 |
| BSAD 153 | Accounting Information Systems | 3 | | BSAD 101 |
| BSAD 154 | Managerial Accounting | 3 | | BSAD 101 |
| BSAD 155 | Accounting Using Spreadsheet | 3 | | BSAD 101 |
| BSAD 202 | Intermediate Accounting I | 3 | | BSAD 102 |
| BSAD 252 | Individual Income Tax | 3 | | BSAD 101 |
| BSAD 290 | Business Capstone | 1 | | |
| BSAD Electives | | 3 | | |
| **Total Credit Hours Required** | | **65** | | |

# Business

## A.A.S. Business Logistics Management Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ECON 210 | Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100<br>MATH 110 | Mathematics for Business *or*<br>Intermediate Algebra or higher | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| PSYC 140<br>SOCI 160 | General Psychology *or*<br>Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 204 | Business Management | 3 | | |
| BSAD 205 | Marketing | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement test score |
| BSAD 254<br>BSAD 255<br>BSAD 270 | Business Law I *or*<br>Business Law II *or*<br>Legal Environment of Business | 3 | | |
| CSIS 115 | Intro to Microcomputer Applications | 3 | | |
| Electives | Any course numbered 100 or above | 6 | | |
| **Logistics Management** | | | | |
| BSAD 210 | Logistics Management | 3 | | |
| BSAD 211 | Operations Management | 3 | | |
| BSAD 212 | Transportation Operations and Management | 3 | | |
| BSAD 213 | Warehouse and Distribution Centers | 3 | | |
| BSAD 290 | Business Capstone | 1 | | |
| BSAD Electives | | 9 | | |
| **Total Credit Hours Required** | | **65** | | |

# Business

## A.A.S. Business Management Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ECON 210 | Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100<br>MATH 110 | Mathematics for Business *or*<br>Intermediate Algebra or higher | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| PSYC 140<br>SOCI 160 | General Psychology *or*<br>Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| Specific Program Requirements | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 204 | Business Management | 3 | | |
| BSAD 205 | Marketing | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement test score |
| BSAD 254<br>BSAD 255<br>BSAD 270 | Business Law I *or*<br>Business Law II *or*<br>Legal Environment of Business | 3 | | |
| CSIS 115 | Intro to Microcomputer Applications | 3 | | |
| Electives | Any course numbered 100 or above | 6 | | |
| **Management** | | | | |
| BSAD 105 | Human Resources Management | 3 | | |
| BSAD 109 | Principles of Supervision | 3 | | |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 127 | Management Internship I | 3 | | |
| BSAD 128 | Management Internship II | 3 | | BSAD 127 |
| BSAD 290 | Business Capstone | 1 | | |
| BSAD Electives | | 6 | | |
| **Total Credit Hours Required** | | **65** | | |

# Business

## A.A.S. Business Office Management Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ECON 210 | Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100<br>MATH 110 | Mathematics for Business *or*<br>Intermediate Algebra or higher | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| PSYC 140<br>SOCI 160 | General Psychology *or*<br>Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 204 | Business Management | 3 | | |
| BSAD 205 | Marketing | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement test score |
| BSAD 254<br>BSAD 255<br>BSAD 270 | Business Law I *or*<br>Business Law II *or*<br>Legal Environment of Business | 3 | | |
| CSIS 115 | Intro to Microcomputer Applications | 3 | | |
| Electives | Any course numbered 100 or above | 6 | | |
| **Office Management** | | | | |
| BSAD 103 | Business English | 3 | | ENGL 30 or appropriate placement test score |
| BSAD 161 | Professional Development and Business Careers | 3 | | |
| BSAD 190 | Office Management | 3 | | |
| CSIS 103 | Document Processing I | 3 | | |
| CSIS 104 | Document Processing II | 3 | | CSIS 103 |
| CSIS 116 | Introduction to Desktop Publishing | 3 | | CSIS 103 or 115 |
| BSAD 290 | Business Capstone | 1 | | |
| BSAD Electives | | 3 | | |
| **Total Credit Hours Required** | | **65** | | |

# Child Growth and Development

*Offered at MCC-Penn Valley*

A.A.S. CDCG ........................................ 66-68 Credits
 Child Growth & Development
  Certificate ............................................31 Credits

This program, which leads to either an Associate in Applied Science degree or a certificate of proficiency, prepares students for jobs in child care. Requirements for the degree and certificate are listed below.

Admission to the Program
 To be admitted to the program, students must complete the following application process:

1. Attend Child Growth and Development Orientation. Contact the Child Growth and Development Department for scheduled orientations.
2. Complete a "Request for Child Abuse or Neglect/Criminal Record." (Every student must complete this process, which involves completing a form, paying the MDHSS fee and mailing the complete form. Information received by MCC-Penn Valley pertinent to this process will be used solely for MCC-Penn Valley's internal purposes in determining the suitability of the applicant for admission to the program.
3. Complete the MCC-Penn Valley admissions process.

For more information, go to **www.mcckc.edu/cdcg**

## A.A.S. Child Growth & Development

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | 3 | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech *or* | 3 | | ENGL 30 or appropriate placement test score |
| SPDR 102 | Fundamentals of Human Communication | | | |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104, 110 and GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR. | | 3-5 | | |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH, PHSC, PHYS | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |
| Specific Emphasis Requirements | | | | |
| CDCG 101 | Fundamentals of Early Care and Education | 3 | | ENGL 30 or appropriate placement test score, or concurrent enrollment |
| CDCG 110 | Child Health, Safety and Nutrition | 3 | | ENGL 30 or appropriate placement test score |
| CDCG 113 | Child Growth and Development I | 3 | | CDCG 101, ENGL 30 or appropriate placement test score |
| CDCG 128 | Curriculum in Early Childhood Education | 3 | | CDCG 113 |
| CDCG 132 | Learning Environment I | 3 | | ENGL 30 or appropriate placement test score |
| CDCG 149 | Child Development Internship I | 3 | | CDCG 113, ENGL 101 |
| CDCG 201 | Language Development | 3 | | CDCG 113 and 132, ENGL 101 |
| CDCG 213 | Child Growth & Development II | 3 | | CDCG 149 or concurrent enrollment |
| CDCG 217 | Literature for Children | 3 | | ENGL 30 or appropriate placement test score |
| CDCG 220 | Child Care Management | 3 | | CDCG 110, 113 and 132 |
| CDCG 236 | Learning Environments II | 3 | | CDCG 213 |
| CDCG 255 | Child Development Internship II | 3 | | CDCG 236 or concurrent enrollment |
| CDCG 260 | Education of the Exceptional Child | 3 | | CDCG 149 |
| CDCG 262 | Families, Early Care, and Communities | 3 | | ENGL 30 or appropriate placement test score |
| CDCG 270 | Portfolio Design | 2 | | Final semester in AAS program |
| HUSC 100 | Careers in Human Sciences | 3 | | ENGL 30 or appropriate placement test score, or concurrent enrollment |
| **Total Credit Hours Required** | | **66-68** | | |

# Child Growth and Development

## Child Growth and Development Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| SPDR 100 Fundamentals of Speech or<br>SPDR 102 Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| CDCG 101 Fundamentals of Early Care and Education | 3 | | |
| CDCG 110 Child Health, Safety and Nutrition | 3 | | |
| CDCG 113 Child Growth and Development I | 3 | | CDCG 101 |
| CDCG 128 Curriculum in Early Childhood Education | 3 | | |
| CDCG 132 Learning Environments I | 3 | | |
| CDCG 149 Child Development Internship I | 3 | | CDCG 113 |
| CDCG 217 Literature for Children | 3 | | |
| HUSC 100 Careers in Human Sciences | 3 | | |
| **Total Credit Hours Required** | **31** | | |

# Computer Aided Drafting & Design Technology

*Offered at MCC-Business &Technology*

A.A.S. Computer Aided Drafting & Design
    Technology ......................................69-70 Credits
    Computer Aided Drafting
      & Design Certificate......................17-19  Credits

This program leads to an Associate in Applied Science degree and certificate. The degree prepares the student for employment in a broad range of engineering, architectural and related fields. Graduates will have a strong background with multiple computer aided design technologies and an understanding of basic design principles in various engineering and architectural fields. This program transfers to area universities if the student wishes to pursue a four-year degree in Computer Aided Drafting and Design.

## A.A.S. Computer Aided Drafting and Design Technology

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 120 | College Algebra *and* | | | MATH 110 (MATH 120) |
| MATH 130 | Trigonometry | | | MATH 120 (MATH 130) |
| | *or* | 5-6 | | MATH 110 or appropriate placement test score |
| MATH 150 | Precalculus | | | (MATH 150) |
| PHYS 130 | General Physics I | 5 | | MATH 130 (PHYS 130) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| EHSS 111 | Introduction to Health & Safety for General Industry or | 1 | | |
| EHSS 112 | Introduction to Health & Safety for Construction | | | |
| ETEC 152 | Engineering Graphics and CADD I | 5 | | MATH 40/40L |
| ETEC 153 | Descriptive Geometry | 3 | | ETEC 152 |
| ETEC 170 | CADD I, Microstation | 3 | | ETEC 152 |
| ETEC 200 | Applied Statics & Mechanics | 3 | | MATH 104 or 130 |
| ETEC 210 | Introduction to Commercial Architecture | 3 | | ETEC 152 |
| ETEC 211 | Building Information Modeling, Revit | 3 | | ETEC 210 or concurrent enrollment |
| ETEC 258 | Introduction to Mechanical Design | 3 | | ETEC 152 |
| ETEC 265 | Introduction to Civil Design | 3 | | ETEC 152 |
| ETEC 268 | Intro to Structural Design | 3 | | ETEC 152 |
| ETEC 269 | CADD II | 4 | | ETEC 152 or 169 |
| ENGR 101 | Introduction to the Profession | 1 | | |
| ETEC 270 | Parametric Modeling, Inventor | 3 | | ETEC 152 or concurrent enrollment |
| ETEC 271 | Parametric Modeling, Solidworks | 3 | | ETEC 152 or concurrent enrollment |
| ETEC 272 | Advanced Parametric Modeling, Inventor *or* | 3 | | ETEC 270 |
| ETEC 273 | Advanced Parametric Modeling, Solidworks | | | ETEC 271 |
| ETEC 290 | Internship in Engineering Technolgy *or* | 3 | | ETEC 152 (ETEC 290) |
| ETEC 295 | Capstone Project in Engineering Technology | | | ETEC 152, 269, 270, or 271 (ETEC 295) |
| **Total Credit Hours Required** | | **69-70** | | |

# Computer Aided Drafting & Design Technology

## Computer Aided Drafting and Design Certificate

| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| ENGR 101     Intro to the Profession | 1 | | |
| ETEC 152     Engineering Graphics and CADD I or<br>ETEC 169     CADD I | 3-5 | | MATH 40/40L or appropriate placement test score |
| ETEC 269     CADD II | 4 | | ETEC 152 or 169 |
| Choose 3 courses from the following:<br>ETEC 170     CADD I, Microstation<br>ETEC 211     Building Information Modeling, Revit<br>ETEC 270     Parametric Model, Inventor<br>ETEC 271     Parametric Modeling, Solidworks<br>ETEC 272     Advanced Parametric Modeling, Inventor<br>ETEC 273     Advanced Parametric Modeling, Protoyping Solidworks | 9 | | ETEC 152<br>ETEC 210 or concurrent enrollment<br>ETEC 152 or concurrent enrollment<br>ETEC 152 or concurrent enrollment<br>ETEC 270<br>ETEC 271 |
| **Total Credit Hours Required** | **17-19** | | |

# Computer Integrated Machining & Manufacturing

*Offered at MCC-Business & Technology*

Lathe Certificate ........................................ 19 Credits
Mill Certificate ........................................... 19 Credits

Computer Integrated Machining and Manufacturing workers use manual lathes, manual mills and computer numerical control (CNC) equipment to manufacture precision metal parts.

This program, designed by MCC-BT's Precision Machining Consortium industry partners, begins with an intensive, one-semester certificate that prepares students to begin a career in manufacturing and machining

## Lathe Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CIMM 100 | Introduction to Machining & Manufacturing | 3 | | |
| CIMM 105 | Introduction to Blueprint Reading | 1 | | |
| CIMM 110 | Manual Lathe Operations | 3 | | CIMM 100 on current enrollment |
| CIMM 120 | CNC Programming Fundamentals | 2 | | CIMM 105, CIMM 110 or CIMM 115 or concurrent enrollment |
| CIMM 121 | CNC Lathe Operation Fundamentals | 3 | | CIMM 110 and CIMM 120 or concurrent enrollment |
| CIMM 150 | Lathe Co-Op | 3 | | CIMM 100, 105, 110, 120, 121 or concurrent enrollment |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | |
| | | | | |
| **Total Credit Hours Required** | | **19** | | |

## Mill Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CIMM 100 | Introduction to Machining & Manufacturing | 3 | | |
| CIMM 105 | Introduction to Blueprint Reading | 1 | | |
| CIMM 115 | Manual Mill | 3 | | CIMM 100 |
| CIMM 120 | CNC Programming Fundamentals | 2 | | CIMM 105 and CIMM 110 or CIM 115 or concurrent enrollment |
| CIMM 122 | CNC Mill Operation Fundamentals | 3 | | CIMM 120 |
| CIMM 151 | Mill Co-Op | 3 | | CIMM 100, 105, 115, 120, 122 or concurrent enrollment |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | |
| | | | | |
| **Total Credit Hours Required** | | **19** | | |

# Computer Science & Information Systems

*Offered at all campuses*

The Associate in Applied Science in Computer Science and Information Systems degree programs are intended to qualify individuals for entry-level positions in computer-related industry.

**A.A.S. Computer Science and Information Systems**
CCNP .................................................. 65-71 Credits
CISCO ............................................... 65-71 Credits
Security .............................................. 63-69 Credits
Software Development ........................ 64-70 Credits
Systems Administration & Engineering
.......................................................... 64-70 Credits
Web Technologies .............................. 64-70 Credits

**Certificates**
CCNA and CCNP................................ 29 Credits
CCNA and Security............................. 24 Credits
CCNA and Technology........................ 32 Credits
Cisco Academy................................... 17 Credits
Software Development ....................... 37 Credits
Systems Administration & Engineering
.......................................................... 37 Credits
Web Technologies .............................. 37 Credits
* Some programs are only offered at one campus. Please see an advisor for more information.

## A.A.S. Computer Science and Information Systems: CCNP

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100 | Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102 | Fundamentals of Human Communications | | | |
| Any course numbered 100 or above from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 10 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | | 3-6 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement score |
| CSIS 110 | Technology & Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| Emphasis Area | | | | |
| CSIS 111 | Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| CSIS 216 | Implementing Cisco IP Routing CCNP I | 4 | | CSIS 213 |
| CSIS 217 | Implementing IP Switching CCNP II | 4 | | CSIS 213 |
| CSIS 218 | Maintaining and Troubleshooting IP Networks: CCNP III | 4 | | CSIS 216 and 217 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **65-71** | | |

# Computer Science & Information Systems

## A.A.S. Computer Science and Information Systems- Cisco

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100 | Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102 | Fundamentals of Human Communications | | | |
| *Any course numbered 100 or above from the following disciplines:* ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | | 3-6 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement score |
| CSIS 110 | Technology & Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| Emphasis Area | | | | |
| CSIS 111 | Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 129 | Introduction to E-Commerce | 3 | | CSIS 110 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 172 | LAN Windows Server | 3 | | CSIS 110 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **65-71** | | |

# Computer Science & Information Systems

## A.A.S. Computer Science and Information Systems: Security

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120 | United States History to 1865 *or* | 3 | | |
| HIST 121 | United States History Since 1865 | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100 | Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102 | Fundamentals of Human Communications | | | |
| *Any course numbered 100 or above from the following disciplines:* ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | | 3-6 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement score |
| CSIS 110 | Technology & Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| **Emphasis Area** | | | | |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 129 | Introduction to E-commerce | 3 | | CSIS 110 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| CSIS 272 | Network Security | 4 | | CSIS 113 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **63-69** | | |

# Computer Science & Information Systems

## A.A.S. Computer Science and Information Systems: Software Development

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100 | Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102 | Fundamentals of Human Communications | | | |
| *Any course numbered 100 or above from the following disciplines:* ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | | 3-6 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement score |
| CSIS 110 | Technology & Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| Emphasis Area | | | | |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or appropriate placement score (CSIS 123) |
| CSIS 223 | Object-Oriented Programming | 3 | | CSIS 123 and MATH 110 |
| CSIS 128 | Web Development | 3 | | CSIS 110 or 115 |
| CSIS 228 | Advanced Web Development | 3 | | CSIS 128 |
| CSIS 141 | Discrete Structures Comp. Science I *or* | 3 | | MATH 120 or 150 |
| MATH 141 | Discrete Structures Comp. Science I | | | |
| CSIS 143 | Database Design and Management | 3 | | CSIS 110 or 115 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 161 | Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 279 | Web Database Programming | 3 | | CSIS 123, 128, and 143 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **64-70** | | |

# Computer Science & Information Systems

## A.A.S. Computer Science and Information Systems: Systems Administration & Engineering

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **General Education Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101　Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120　United States History to 1865 *or* | 3 | | |
| HIST 121　United States History Since 1865 | | | |
| POLS 135　Introduction to Political Science *or* | | | |
| POLS 136　Introduction to American National Politics *or* | | | |
| POLS 137　Introduction to State and Local Politics | | | |
| MATH 110　Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100　Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102　Fundamentals of Human Communications | | | |
| *Any course numbered 100 or above from the following disciplines:* ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | 3-6 | | |
| **Total General Education Requirements** | **18** | | |
| **Specific Program Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| BSAD 120　Organizational Behavior | 3 | | |
| BSAD 221　Business Communications | 3 | | ENGL 30 or appropriate placement test score |
| CSIS 110　Technology & Information Management | 3 | | |
| CSIS 115　Introduction to Microcomputer Applications | 3 | | |
| Emphasis Area | | | |
| CSIS 111　Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 143　Database Design and Management | 3 | | CSIS 110 or CSIS 115 |
| CSIS 151　Microcomputer Operating Systems Concepts | 3 | | CSIS 110 |
| CSIS 152　Linux Operating System | 3 | | CSIS 110 |
| CSIS 161　Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 170　Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 172　LAN Windows Server | 3 | | CSIS 112 or 161 and CSIS 151 |
| CSIS 174　Technologies Used on Local Area Networks | 3 | | CSIS 172 |
| CSIS 175　Service and Support of Local Area Networks | 3 | | CSIS 172 |
| CSIS 178　Internetworking with TCP/IP | 3 | | CSIS 172 |
| CSIS 290　Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | **64-70** | | |

# Computer Science & Information Systems

## A.A.S. Computer Science and Information Systems: Web Technologies

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition & Reading I | 3 | | ENGL 30 or appropriate placement score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra *or* higher Mathematics course | 3 | | MATH 40/40L or appropriate placement score |
| SPDR 100 | Fundamentals of Speech or | 3 | | ENGL 30 or appropriate placement score |
| SPDR 102 | Fundamentals of Human Communications | | | |
| *Any course numbered 100 or above from the following disciplines:* ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 & 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-6 | | |
| Any course numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (104 & 110), GEOL, MATH 120 or above, PHYS | | 3-6 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appopriate placement score |
| CSIS 110 | Technology & Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| Emphasis Area | | | | |
| GDES 110 | Computers in Design I | 3 | | |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or appropriate placement score |
| CSIS 223 | Object-Oriented Programming | 3 | | CSIS 123 |
| CSIS 128 | Web Development | 3 | | CSIS 110 or 115 |
| CSIS 228 | Advanced Web Development | 3 | | CSIS 128 |
| CSIS 143 | Database Design and Management | 3 | | CSIS 110 or 115 |
| CSIS 161 | Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 162 | Introduction to Digital Media | 3 | | CSIS 110 or 115 |
| CSIS 262 | Advanced Digital Media and Development | 3 | | CSIS 162 |
| CSIS 279 | Web Database Programming | 3 | | CSIS 123, 128, and 143 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **64-70** | | |

# Computer Science & Information Systems

## CSIS CCNA and CCNP Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| CSIS 216 | Implementing Cisco IP Routing: CCNP I | 4 | | CSIS 213 |
| CSIS 217 | Implementing IP Switching CCNP II | 4 | | CSIS 213 |
| CSIS 218 | Maintaining and Troubleshooting IP Networks CCNP III | 4 | | CSIS 216 and 217 |
| **Total Credit Hours Required** | | **29** | | |

## CSIS CCNA and Security Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| CSIS 272 | Network Security | 4 | | CSIS 113 |
| **Total Credit Hours Required** | | **24** | | |

## CSIS CCNA and Technology Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| BSAD 120 | Organizational Behavior *or* | 3 | | |
| BSAD 221 | Business Communications | | | ENGL 30 or appropriate placement score |
| CSIS 110 | Technology and Information Management *or* | 3 | | |
| CSIS 115 | Intro to Microcomputer Applications | | | |
| CSIS 111 | Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| **Total Credit Hours Required** | | **32** | | |

## CSIS Cisco Academy Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| CSIS 112 | Network Fundamentals CCNA Exploration I | 4 | | CSIS 110 or CSIS 115 |
| CSIS 113 | Routing Protocols and Concepts CCNA Exploration II | 4 | | CSIS 112 |
| CSIS 212 | LAN Switching and Wireless CCNA Exploration III | 4 | | CSIS 113 |
| CSIS 213 | Accessing the WAN CCNA Exploration IV | 4 | | CSIS 212 |
| **Total Credit Hours Required** | | **17** | | |

# Computer Science & Information Systems

## CSIS Software Development Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSIS 110 | Technology and Information Management | 3 | | |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or appropriate placement score |
| CSIS 223 | Object-Oriented Programming | 3 | | MATH 110 and CSIS 123 |
| CSIS 128 | Web Development | 3 | | CSIS 110 or CSIS 115 |
| CSIS 228 | Advanced Web Development | 3 | | CSIS 128 |
| CSIS 141<br>MATH 141 | Discrete Structures Comp Science I *or*<br>Discrete Structures Comp Science I | 3 | | MATH 120 or MATH 150 |
| CSIS 143 | Database Design and Management | 3 | | CSIS 110 or CSIS 115 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 161 | Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 279 | Web Database Programming | 3 | | CSIS 123, 128, and 143 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **37** | | |

## CSIS Systems Administration & Engineering Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSIS 110 | Technology and Information Management | 3 | | |
| CSIS 111 | Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 143 | Database Design and Management | 3 | | CSIS 110 or CSIS 115 |
| CSIS 151 | Micocomputer Operating Systems Concepts | 3 | | CSIS 110 |
| CSIS 152 | Linux Operating System | 3 | | CSIS 110 |
| CSIS 161 | Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 170 | Principles of Information Assurance | 3 | | CSIS 110 |
| CSIS 172 | LAN Windows Server | 3 | | CSIS 110 |
| CSIS 174 | Technologies Used on Local Area Networks | 3 | | CSIS 172 |
| CSIS 175 | Service and Support of Local Area Networks | 3 | | CSIS 172 |
| CSIS 178 | Internetworking with TCP/IP | 3 | | CSIS 172 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **37** | | |

## CSIS Web Technologies Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| GDES 110 | Computers in Design I | 3 | | |
| CSIS 110 | Technology and Information Management | 3 | | |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or appropriate placement score |
| CSIS 128 | Web Development | 3 | | CSIS 110 or CSIS 115 |
| CSIS 143 | Database Design and Management | 3 | | CSIS 110 or CSIS 115 |
| CSIS 161 | Networking Fundamentals | 3 | | CSIS 110 |
| CSIS 162 | Introduction to Digital Media | 3 | | CSIS 110 or CSIS 115 |
| CSIS 223 | Object-Oriented Programming | 3 | | MATH 110 and CSIS 123 |
| CSIS 228 | Advanced Web Development | 3 | | CSIS 128 |
| CSIS 262 | Advanced Digital Media Design and Development | 3 | | CSIS 162 |
| CSIS 279 | Web Database Programming | 3 | | CSIS 123, 128, and 143 |
| CSIS 290 | Field Competencies and Employment Strategies | 3 | | Instructor approval |
| **Total Credit Hours Required** | | **37** | | |

# Construction Management

*Offered at MCC-Business & Technology*

This Associate in Applied Science degree is intended to qualify individuals for entry-level careers in the residential or commercial construction industry, in management or support roles. Construction specialty (CSMG) classes are held in the evening at the Builders' Association Education and Training Center, 105 W. 12th Avenue. North Kansas City, Missouri.

## A.A.S. Indus. Tech. Construction Management

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **General Education Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101　Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120　United States History to 1865 *or*<br>HIST 121　United States History Since 1865 *or*<br>POLS 135　Introduction to Political Science *or*<br>POLS 136　Introduction to American National Politics *or*<br>POLS 137　Introduction to State and Local Politics | 3 | | |
| MATH 100　Mathematics for Business *or*<br>MATH 110　Intermediate Algebra | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| SPDR 100　Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| *General Education Electives:*<br>ART 108, 150, 151, PHIL 100, PSYC 140, SOCI 160, HIST 120, 121, POLS 135, ENGL 215 | 6 | | |
| **Specific Program Requirements** | | | |
| BSAD 100　Introduction to Accounting *or*<br>BSAD 101　Accounting Principles I | 3 | | |
| BSAD 109　Principles of Supervision *or*<br>BSAD 120　Organizational Behavior | 3 | | |
| BSAD 127　Management Internship I *and*<br>BSAD 128　Management Internship II<br>　　　　　*or*<br>*Select three of the following four CSMG courses:*<br>CSMG 150　Construction Management Leadership<br>CSMG 160　Construction Project Management<br>CSMG 170　Communications for the Construction Trades<br>CSMG 180　General and Specialty Contractor Dynamics | 6 | | |
| BSAD 219　Entrepreneurship *or*<br>BSAD 204　Business Management | 3 | | |
| BSAD 153　Accounting Information Systems *or*<br>CSIS 115　Intro to Microcomputer Applications *or*<br>CSIS　　　Any Programming Language Course | 3 | | BSAD 101 (BSAD 153) |
| BSAD 205　Marketing | 3 | | |
| BSAD 221　Business Communications | 3 | | |
| BSAD 254　Business Law I *or*<br>BSAD 255　Business Law II *or*<br>BSAD 270　Legal Environment of Business | 3 | | |
| CSMG 110　Problem Solving/Decision Making | 1 | | |
| CSMG 120　OSHA and Site Security | 1 | | |
| CSMG 130　Cost Awareness/Production Control | 1 | | |
| CSMG 140　Beginning Print Reading | 2 | | |
| CSMG 205　Intermediate Print Reading | 2 | | CSMG 140 |
| CSMG 210　Accident Prevention and Loss Control | 1 | | |
| CSMG 220　Construction Planning and Scheduling | 2 | | |
| CSMG 230　Productivity Improvement | 2 | | |
| CSMG 250　Construction Estimating | 2 | | |
| CSMG 260　Contract Documents | 2 | | |
| CSMG 270　Advanced Print Reading | 2 | | CSMG 205 |
| **Total Credit Hours Required** | **64** | | |

# Construction Trades Apprenticeship Program

*Offered at MCC-Business & Technology*

These degree completion programs grant college credit by certification for certain federally approved apprenticeship programs. An eligible apprenticeship must contain a minimum 450 clock hours of classroom instruction and a program-specific number of clock hours of on-the-job training. Thirty to forty-two hours of MCC credit leading toward an AAS in Industrial Technology will be awarded upon completion of 15 hours of MCC coursework and receipt of a certificate and/or journeyman card for the appropriate craft.

**A.A.S. Industrial Technologies**

| | |
|---|---|
| Bricklayer............................................ 64-66 Credits | Floor Layer ........................................... 64-66 Credits |
| Construction Carpentry.......................... 64-66 Credits | Glaziers ................................................ 64-66 Credits |
| Construction Cement Masons ............... 64-66 Credits | Inside Wiring |
| Construction Driver & Logistics  ............ 63-67 Credits |  3 -Year program................................... 64-66 Credits |
| Construction Ironwork............................ 64-66 Credits |  5 -Year program................................... 67-68 Credits |
| Construction Laborer ............................ 64-66 Credits | Painter .................................................. 64-66 Credits |
| | Plumbing............................................... 64-66 Credits |

## Bricklayer Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |
| Specific Program Requirements | | | | |
| **Bricklayer** | | | | |
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health & Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Bricklaying Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

\* Federally approved bricklaying apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Construction Carpentry Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total Credit Hours** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| Carpentry Apprenticeship (Credit by Certification*) | | 29 | | |
| General Electives | | 6 | | |
| **Total Credit Hours** | | **64-66** | | |

**\*** Federally approved carpentry apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Construction Cement Masons Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 United States History to 1865 *or*<br>HIST 121 United States History Since 1865 *or*<br>POLS 135 Introduction to Political Science *or*<br>POLS 136 Introduction to American National Politics *or*<br>POLS 137 Introduction to State and Local Politics | | 3 | | |
| SPDR 100 Fundamentals of Speech | | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103 Technical Mathematics I *or*<br>MATH 103R Technical Mathematics I w/ review *or*<br>MATH 120 College Algebra *or*<br>MATH 120R College Algebra w/ review **and**<br>MATH 104 Technical Mathematics II *or*<br>MATH 130 Trigonometry<br>**Option 2:**<br>MATH 150 Calculus or higher | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 Introduction to Personal Computing or<br>CSIS 115 Introduction to Microcomputer Applications or higher | | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | |
| Cement Masons Apprenticeship (Credit by Certification*) | | 29 | | |
| General Electives | | 9 | | CSOF 100 or CSIS 115 or higher |
| **Total Credit Hours** | | **64-66** | | |

**\*** Federally approved cement masons apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## A.A.S. Indus. Construction Driver & Logistics

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 **or** | | | |
| HIST 121 | United States History Since 1865 **or** | | | |
| POLS 135 | Introduction to Political Science **or** | 3 | | |
| POLS 136 | Introduction to American National Politics **or** | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | | | MATH 20/20L or appropriate score on placement test (MATH 103R) |
| MATH 103 | Technical Mathematics I **or** | | | MATH 40/40L or appropriate placement test score |
| MATH 103R | Technical Mathematics I w/ review **or** | | | (MATH 103), MATH 103 (MATH 104), MATH 110 |
| MATH 120 | College Algebra **or** | | | or appropriate placement test score (MATH 120), |
| MATH 120R | College Algebra w/ review **and** | 5-8 | | MATH 120 or appropriate placement test score |
| MATH 104 | Technical Mathematics II **or** | | | (MATH 130) |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score on the math |
| **Option 2:** | | | | placement test (MATH 150) |
| MATH 150 | Precalculus or higher | | | |
| SPAN 100 | Beginning Occupational Spanish **or** | 3-5 | | |
| SPAN 101 | Elementary Spanish I | | | |
| **Total General Education Requirements** | | **18** | | |
| Specific Program Requirements | | | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| CSIS 110 | Technology and Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| INTE 151 | Industrial Rigging | 3 | | |
| BSAD 109 | Principles of Supervision | 3 | | |
| BSAD 210 | Logistics Management | 3 | | |
| BSAD 211 | Operations Management | 3 | | |
| BSAD 212 | Transportation and Operations and Management | 3 | | |
| BSAD 213 | Warehouse and Distribution Centers | 3 | | |
| BSAD 219 | Entrepreneurship | 8 | | |
| Warehouse Worker Apprenticeship* | | 8 | | |
| Electives as necessary to meet the minimum credit hours to complete the degree. | | | | |
| **Total Credit Hours Required** | | **63-67** | | |
| *Federally approved Warehouse Worker apprenticeship program that contains a minimum of 144 clock hours of classroom and instruction and 2000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate. | | | | |

# Construction Trades Apprenticeship Program

Construction Ironworker Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Ironworking Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

| **\*** Federally approved ironworking apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. |
|---|

# Construction Trades Apprenticeship Program

## Construction Laborer Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requiremt** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Construction Laborer Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

| \* Federally approved construction laborer apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. |
|---|

# Construction Trades Apprenticeship Program

## Floor Layer Apprenticeship

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| MATH 103 | Technical Mathematics I *or* | | | |
| MATH 103R | Technical Mathematics I w/ review *or* | | | |
| MATH 120 | College Algebra *or* | | | |
| MATH 120R | College Algebra w/ review **and** | 5-8 | | |
| MATH 104 | Technical Mathematics II *or* | | | |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Option 2:** | | | | |
| MATH 150 | Calculus or higher | | | |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 | Introduction to Personal Computing or | 1-3 | | |
| CSIS 115 | Introduction to Microcomputer Applications or higher | | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| Floor Layer Apprenticeship (Credit by Certification*) | | 29 | | |
| General Electives | | 6 | | |
| **Total Credit Hours** | | **64-66** | | |

**\*** Federally approved glazier apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Glaziers Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| MATH 103 | Technical Mathematics I *or* | | | |
| MATH 103R | Technical Mathematics I w/ review *or* | | | |
| MATH 120 | College Algebra *or* | | | |
| MATH 120R | College Algebra w/ review **and** | 5-8 | | |
| MATH 104 | Technical Mathematics II *or* | | | |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Option 2:** | | | | |
| MATH 150 | Calculus or higher | | | |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 | Introduction to Personal Computing or | 1-3 | | |
| CSIS 115 | Introduction to Microcomputer Applications or higher | | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Glazier Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

*\* Federally approved glazier apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.*

# Construction Trades Apprenticeship Program

## Inside Wiring- 3 Year Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 orappropriate placement test score |
| HIST 120 | United States History to 1865 **or** | | | |
| HIST 121 | United States History Since 1865 **or** | | | |
| POLS 135 | Introduction to Political Science **or** | 3 | | |
| POLS 136 | Introduction to American National Politics **or** | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** MATH 103 — Technical Mathematics I **or** MATH 103R — Technical Mathematics I w/ review **or** MATH 120 — College Algebra **or** MATH 120R — College Algebra w/ review **and** MATH 104 — Technical Mathematics II **or** MATH 130 — Trigonometry **Option 2:** MATH 150 — Calculus or higher | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |

| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 — Introduction to Personal Computing or CSIS 115 — Introduction to Microcomputer Applications or higher | | 1-3 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Electrical Apprenticeship | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

* Federally approved inside wiring apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Inside Wiring- 5 Year Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 **or** | | | |
| HIST 121 | United States History Since 1865 **or** | | | |
| POLS 135 | Introduction to Political Science **or** | 3 | | |
| POLS 136 | Introduction to American National Politics **or** | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| MATH 103 | Technical Mathematics I **or** | | | |
| MATH 103R | Technical Mathematics I w/ review **or** | | | |
| MATH 120 | College Algebra **or** | | | |
| MATH 120R | College Algebra w/ review **and** | 5-8 | | |
| MATH 104 | Technical Mathematics II **or** | | | |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Option 2:** | | | | |
| MATH 150 | Calculus or higher | | | |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| CSOF 100 | Introduction to Personal Computing or | 1-3 | | |
| CSOS 115 | Introduction to Microcomputer Applications or higher | | | |
| INTE 107 | Industrial Electircal Safety | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| Electrical Apprenticeship | | 42 | | |
| **Total Credit Hours** | | **67-68** | | |

\* Federally approved inside wiring apprenticeship program that contains a minimum 750 clock hours of classroom instruction and 10,000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Painter Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing **or**<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Painter Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

\* Federally approved painter apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Program

## Plumbing Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 **or** | 3 | | |
| HIST 121 | United States History Since 1865 **or** | | | |
| POLS 135 | Introduction to Political Science **or** | | | |
| POLS 136 | Introduction to American National Politics **or** | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) <br><br> MATH 110 or satisfactory score in Math placement test (MATH 150) |
| MATH 103 | Technical Mathematics I **or** | | | |
| MATH 103R | Technical Mathematics I w/ review **or** | | | |
| MATH 120 | College Algebra **or** | | | |
| MATH 120R | College Algebra w/ review **and** | | | |
| MATH 104 | Technical Mathematics II **or** | | | |
| MATH 130 | Trigonometry | | | |
| **Option 2:** | | | | |
| MATH 150 | Calculus or higher | | | |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |

| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 | Introduction to Personal Computing or | 1-3 | | |
| CSIS 115 | Introduction to Microcomputer Applications or higher | | | |
| EHSS 112 | Introduction to Health & Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Plumber Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |
| * Federally approved plumber apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Criminal Justice

*Offered at MCC-Blue River and MCC-Penn Valley*

A.A.S. Criminal Justice Adult
    Corrections Emphasis ..................... 67-69 Credits
A.A.S. Criminal Justice Juvenile
    Services Emphasis ......................... 67-69 Credits
A.A.S. Criminal Justice Police
    Science .......................................... 64-68 Credits
Police Science Certificate-600 Program.........37 Credits

This program leads to the Associate in Applied Science degree with three emphasis areas: Adult Corrections, Juvenile Services and Police Science. The program prepares students for jobs in law enforcement and corrections. The Police Science program is offered at MCC-Blue River. Penn Valley offers the Adult Corrections and Juvenile Services emphasis areas.

## A.A.S. Criminal Justice Adult Corrections Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100 | Mathematics for Business or higher numbered course | 3 | | MATH 20/20L or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: ECON, HIST, Foreign Language | | 3-5 | | |
| Specific Core Requirements | | | | |
| CRJU 101 | Intro to Criminal Justice | 3 | | |
| CRJU 122 | Procedural Law | 3 | | |
| CRJU 165 | Criminology | 3 | | |
| CRJU 168 | Juvenile Delinquency | 3 | | |
| CRJU 169 | Family Violence and Sexual Abuse | 3 | | |
| CRJU 223<br>CRJU 230 | Criminal Law I *or*<br>Missouri Criminal Law | 3 | | |
| Adult Corrections Emphasis | | | | |
| CRJU 105 | American Corrections | 3 | | CRJU 101 |
| CRJU 126 | Corrections in the Community | 3 | | |
| CRJU 162 | Correctional Psychology | 3 | | |
| CRJU 200 | Internship in Criminal Justice | 3 | | 15 credit hours of CRJU including CRJU 101 |
| CRJU 228 | Fundamentals of Probation and Parole | 3 | | |
| CRJU 233<br>CRJU 236 | Principles of Management in Criminal Justice Systems *or*<br>Correctional Administration | 3 | | |
| Electives: Any course(s) numbered 100 or above from the following disciplines: CRJU, Foreign Language, HUMS, PSYC, SOCI | | 9 | | |
| **Total Credit Hours Required** | | **67-69** | | |

# Criminal Justice

## A.A.S. Criminal Justice Juvenile Services Emphasis

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 United States History to 1865 *or* <br> HIST 121 United States History Since 1865 *or* <br> POLS 135 Introduction to Political Science *or* <br> POLS 136 Introduction to American National Politics *or* <br> POLS 137 Introduction to State and Local Politics | 3 | | |
| MATH 100 Mathematics for Business or higher numbered course | 3 | | MATH 20/20L or appropriate placement test score |
| PSYC 140 General Psychology | 3 | | |
| SOCI 160 Sociology | 3 | | |
| SPDR 100 Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: ECON, HIST, Foreign Language | 3-5 | | |
| Specific Core Requirements | | | |
| CRJU 101 Intro to Criminal Justice | 3 | | |
| CRJU 122 Procedural Law | 3 | | |
| CRJU 165 Criminology | 3 | | |
| CRJU 168 Juvenile Delinquency | 3 | | |
| CRJU 169 Family Violence and Sexual Abuse | 3 | | |
| CRJU 223 Criminal Law I *or* <br> CRJU 230 Missouri Criminal Law | 3 | | |
| Juvenile Services Emphasis | | | |
| CRJU 200 Internship in Criminal Justice | 3 | | 15 credit hours of CRJU including CRJU 101 |
| CRJU 215 Juvenile Law | 3 | | |
| CRJU 244 Group and Individual Counseling in Corrections | 3 | | CRJU 105 |
| HUMS 160 Principles of Youth Work | 3 | | |
| HUMS 166 Behavior Management | 3 | | |
| PSYC 245 Adolescent Psychology | 3 | | PSYC 140 |
| Electives: Any course(s) numbered 100 or above from the following disciplines: ANTH, CRJU, Foreign Language, HUMS, PSYC | 9 | | |
| **Total Credit Hours Required** | **67-69** | | |

# Criminal Justice

This program leads to an Associate in Applied Science Degree. It prepares students for jobs as police officers.

## A.A.S. Criminal Justice - Police Science

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 HIST 121 POLS 135 POLS 136 POLS 137 | United States History to 1865 *or* United States History Since 1865 *or* Introduction to Political Science *or* Introduction to American National Politics *or* Introduction to State and Local Politics | 3 | | |
| MATH 100 | Mathematics for Business or higher numbered course | 3 | | MATH 20/20L or appropriate placement test score |
| PSYC 140 SOCI 160 | General Psychology *or* Sociology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: ECON, HIST, Foreign Language | | 3-5 | | |
| **Police Science Emphasis Requirements** | | | | |
| LWEN 101 | Introduction to Law Enforcement | 3 | | LWEN 100 |
| LWEN 111 | Law Enforcement Operational Procedures | 3 | | LWEN 101 |
| LWEN 112 | Traffic Control and Investigation | 3 | | LWEN 101 |
| LWEN 114 | Law Enforcement Report Writing | 3 | | LWEN 100 |
| LWEN 122 | Procedural Law for Law Enforcement | 3 | | LWEN 101 |
| LWEN 143 | Defensive Tactics for Law Enforcement | 4 | | LWEN 101 |
| LWEN 200 | Law Enforcement Skills | 5 | | LWEN 101 |
| LWEN 203 | Criminal Investigation I for Law Enforcement | 3 | | LWEN 101 |
| LWEN 204 | Criminal Investigation II for Law Enforcement | 3 | | LWEN 101 and 203 |
| LWEN 230 | Missouri Statutory Law | 3 | | LWEN 101 |
| EMS 110 | First Responder | 3 | | |
| **Electives** | | | | |
| *Choose three courses numbered 100 or above from the following disciplines:* BSAD, CRJU, HIST, HUMS, LWEN, POLS, PSYC, SOCI or Foreign Language | | 9-11 | | |
| **Total Credit Hours Required** | | **64-68** | | |

# Criminal Justice

This program provides basic peace officer training. With the completion of the Police Training Academy the candidate will have the required training to apply at any Class A County department. All instructors at the academy are current members of area police departments and possess the Missouri Peace Officer Standards and Training Program,(POST) state instructor certification.

## Police Science Certificate - 600 Program

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| LWEN 101 Introduction to Law Enforcement | 3 | | LWEN 100 |
| LWEN 111 Law Enforcement Operational Procedures | 3 | | LWEN 101 |
| LWEN 112 Traffic Control and Investigation | 3 | | LWEN 101 |
| LWEN 114 Law Enforcement Report Writing | 3 | | LWEN 100 |
| LWEN 122 Procedural Law for Law Enforcement | 3 | | LWEN 100 |
| LWEN 143 Defensive Tactics for Law Enforcement | 4 | | LWEN 101 |
| LWEN 200 Law Enforcement Skills | 5 | | LWEN 101 |
| LWEN 203 Criminal Investigations I for Law Enforcement | 3 | | LWEN 101 |
| LWEN 204 Criminal Investigations II for Law Enforcement | 3 | | LWEN 101 and 203 |
| LWEN 230 Missouri Statutory Law | 3 | | LWEN 101 |
| EMS 110 First Responder | 3 | | |
| **Total Credit Hours Required** | **37** | | |

# Dental Assisting

*Offered at MCC-Penn Valley*

A.A.S. Dental Assisting....................................72-78 Credits
    Dental Assisting Certificate ...........................52 Credits

This program, which leads to either an Associate in Applied Science degree or a certificate of proficiency, prepares the student to enter the workforce as a trained dental assistant. Graduates of this program are eligible to take the national certifying examination given by the Dental Assisting National Board.

**Admission to the Dental Assisting Program**
 Because enrollment in the program is limited, a student must meet the requirements and apply for admission.
For more information, go to **www.mcckc.edu/dentalassisting**

## A.A.S. Dental Assisting

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| BIOL 109 | Human Anatomy and Human Physiology (BIOL 110 and 210 may be substituted) | 6-10 | | BIOL 100 or CHEM 105 |
| BIOL 208 | Microbiology | 5 | | BIOL 100 or CHEM 105 or higher, plus one of the following courses: BIOL 100, 104, 106, 108, 109, or 110. |
| BIOL 100 | Cell Biology *or* | 3-5 | | |
| CHEM 105 | Introductory Chemistry | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | 3 | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 110 | Intermediate Algebra (or higher) | 3 | | MATH 40 or 40L |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| SOCI 160 | Intro to Sociology | 3 | | |
| **Specific Program Requirements** | | | | |
| DENA 100 | Introduction to Dental Assisting | 1 | | |
| DENA 101 | Body Structure and Function | 2 | | Admission to the Dental Assisting program |
| DENA 102 | Head and Neck Anatomy | 2 | | Admission to the Dental Assisting program |
| DENA 103 | Dental Anatomy | 2 | | Admission to the Dental Assisting program |
| DENA 104 | Dental Emergencies and Pharmacology | 1 | | Admission to the Dental Assisting program |
| DENA 105 | Dental Materials I | 2 | | Admission to the Dental Assisting program |
| DENA 108 | Oral Microbiology & Infection Control | 2 | | Admission to the Dental Assisting program |
| DENA 110 | Chairside Assisting I | 5 | | Admission to the Dental Assisting program |
| DENA 115 | Dental Radiology I | 4 | | DENA 102 |
| DENA 125 | Clinical Experience I | 2 | | Admission to the Dental Assisting program and completion of CPR for healthcare workers |
| DENA 205 | Dental Materials II | 3 | | DENA 105 |
| DENA 210 | Chairside Assisting II | 5 | | DENA 110 |
| DENA 215 | Dental Radiology II | 2 | | DENA 115 |
| DENA 225 | Dental Office Management | 2 | | Enrollment in the Dental Assisting program |
| DENA 230 | Oral Pathology | 1 | | DENA 108 and 110 |
| DENA 250 | Clinical Experience II | 4 | | DENA 125 |
| DENA 260 | Dental Assisting Seminar | 2 | | DENA 125 |
| **Total Credit Hours Required** | | **72-78** | | |

# Dental Assisting

## Dental Assisting Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| DENA 100 | Introduction to Dental Assisting | 1 | | |
| DENA 101 | Body Structure and Function | 2 | | Admission to the Dental Assisting program |
| DENA 102 | Head and Neck Anatomy | 2 | | Admission to the Dental Assisting program |
| DENA 103 | Dental Anatomy | 2 | | |
| DENA 104 | Dental Emergencies and Pharmacology | 1 | | |
| DENA 105 | Dental Materials I | 2 | | Admission to the Dental Assisting program |
| DENA 108 | Oral Microbiology and Infection Control | 2 | | |
| DENA 110 | Chairside Assisting I | 5 | | Admission to the Dental Assisting program |
| DENA 115 | Dental Radiology | 4 | | DENA 102 |
| DENA 125 | Clinical Experience I | 2 | | Admission to the Dental Assisting program and completion of CPR for healthcare workers |
| DENA 205 | Dental Materials II | 3 | | DENA 105 |
| DENA 210 | Chairside Assisting II | 5 | | DENA 110 |
| DENA 215 | Dental Radiology II | 2 | | DENA 115 |
| DENA 225 | Dental Office Management | 2 | | Enrollment in the Dental Assisting program |
| DENA 230 | Oral Pathology | 1 | | DENA 108 and 110 |
| DENA 250 | Clinical Experience II | 4 | | DENA 125 |
| DENA 260 | Dental Assisting Seminar | 2 | | DENA 125 |
| **Total Credit Hours Required** | | **52** | | |

# Engineering Technology

*Offered MCC-Business & Technology*

A.A.S. Engineering Technology
- Architecture .................................... 65-66 Credits
- Civil...................................................... 64 Credits
- Computer & Electronics.................. 64-66 Credits
- Construction Management ............ 65-66 Credits
- Mechanical/Manufacturing Tech ..... 68-70 Credits

This program leads to an Associate in Applied Science degree and prepares the student to enter the workforce in the mechanical engineering, civil engineering, architecture, computer and electronics fields and construction management. Graduates will have a strong background in mathematics, design principles, computer aided design and other technologies relating to the engineering fields. Graduates will assist engineering professionals in the design process and be an integral part of the design team. This program transfers to area universities if the student wishes to pursue a four-year degree in engineering technology or related degree.

## A.A.S. Engineering Technology: Architecture Emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | U.S. History to 1865 *or* | | | |
| HIST 121 | U.S. History since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 120 | College Algebra and | | | MATH 110 or satisfactory placement test score |
| MATH 130 | Trigonometry or | 5-6 | | |
| MATH 150 | Pre-Calculus | | | |
| MATH 180 | Analytic Geometry and Calculus I | 5 | | MATH 130 or 150 |
| **Specific Program Requirements** | | | | |
| EHSS 111 | Intro to Health & Safety for General Industry or | 1 | | |
| EHSS 112 | Intro to Health & Safety for Construction | | | |
| ETEC 152 | Engineering Graphics and CADD I | 5 | | MATH 40/40L or appropriate placement test score |
| ETEC 153 | Descriptive Geometry | 4 | | ETEC 152 |
| ETEC 200 | Applied Statics & Mechanics | 3 | | MATH 104 or 130 |
| ETEC 268 | Introduction to Structural Steel Design | 3 | | ETEC 152 |
| ETEC 269 | CADD II | 4 | | ETEC 152 or 169 |
| ENGR 101 | Introduction to the Profession | 1 | | |
| PHYS 130 | General Physics | 5 | | MATH 130 or appropriate placement test score. |
| ETEC 170 | CADD I, Microstation | 3 | | ETEC 152 |
| ETEC 210 | Introduction to Commercial Architecture | 3 | | ETEC 152 and 155 |
| ETEC 211 | Building Information Modeling, Revit | 3 | | ETEC 220 |
| ETEC 265 | Introduction to Civil Design | 3 | | ETEC 152 |
| ETEC 290 | Internship in Engineering Technology or | 3 | | |
| ETEC 295 | Capstone Project in Engineering Technology | | | |
| SRVY 135 | Elementary Surveying | 3 | | MATH 130 or 150 |
| **Total Credit Hours Required** | | **65-66** | | |

# Engineering Technology

## A.A.S. Engineering Technology: Civil Emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | U.S. History to 1865 *or* | | | |
| HIST 121 | U.S. History since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 180 | Analytic Geometry and Calculus I | 5 | | MATH 130 or 150 |
| **Specific Program Requirements for:** | | | | |
| | **Civil & Mechanical/Manufacturing g & Architecture** | | | |
| ETEC 152 | Engineering Graphics and CADD I | 5 | | MATH 40/40L or appropriate placement test score |
| ETEC 153 | Descriptive Geometry | 4 | | ETEC 152 |
| ETEC 200 | Structural Design | 3 | | MATH 104 or 130 |
| ETEC 268 | Structural Steel Blueprint Reading | 3 | | ETEC 152 |
| ETEC 269 | CADD II | 4 | | ETEC 152 or 169 |
| ENGR 101 | Introduction to the Profession | 1 | | |
| PHYS 130 | General Physics | 5 | | MATH 130 or appropriate placement test score. |
| **Specific Emphasis Requirements Civil** | | | | |
| ETEC 265 | Introduction to Civil Drafting | 3 | | ETEC 152 |
| GEOG 120 | Introduction to Geographic Information Systems | 3 | | |
| GEOG 220 | GIS Database and Design | 3 | | GEOG 120 |
| GEOG 224 | Applications in Geographic Information Systems | 3 | | GEOG 120 and 220 |
| SRVY 135 | Elementary Surveying | 3 | | MATH 105, 130 or 150 |
| SRVY 235 | Advanced Surveying | 3 | | SRVY 135 |
| **Total Credit Hours Required** | | **64** | | |

# Engineering Technology

## A.A.S. Engineering Technology: Computer & Electronics Emphasis

| General Education Requirements (Computer & Electronics) | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | U.S. History to 1865 *or* | 3 | | |
| HIST 121 | U.S. History since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 120 | College Algebra and | 5-6 | | MATH 110 or satisfactory placement test score |
| MATH 130 | Trigonometry or | | | |
| MATH 150 | Pre-Calculus | | | |
| MATH 180 | Analytic Geometry and Calculus I | 5 | | MATH 130 or 150 |
| **Specific Program Requirements** | | | | |
| CHEM 111 | General College Chemistry I *or* | 5 | | MATH 120 or satisfactory score on placement test (CHEM 111) |
| PHYS 130 | General Physics I *or* | | | MATH 130 |
| PHYS 220 | Engineering Physics I | | | Enrollment in or completion of MATH 190 |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or placement test |
| CSIS 223 | Object-Oriented Programming | 3 | | MATH 110 and CSIS 123 |
| EHSS 111 | Intro to Health & Safety for General Industry *or* | 1 | | |
| EHSS 112 | Intro to Health & Safety for Construction | | | |
| ETEC 152 | Engineering Graphics & CADD I | 5 | | MATH 40/40L |
| ETEC 118 | AC Circuit Analysis | 4 | | ETEC 110 or ETEC 110 |
| ETEC 130 | Digital Electronics | 4 | | ETEC 110 or ETEC 110 |
| ETEC 220 | Analog Devices | 4 | | ETEC 118 |
| ETEC 230 | Microcontroller Architecture | 4 | | ETEC 130 |
| ETEC 240 | Design Project or | 3 | | ETEC 270 |
| ETEC 275 | Build Project | | | ETEC 220 |
| ETEC 290 | Internship in Engineering Technology or | 3 | | |
| ETEC 295 | Capstone Project in Engineering Technology | | | |
| ENGR 101 | Introduction to the Profession | 1 | | |
| INTE 110 | Industrial Electrical Principle | 4 | | |
| Electives- choose one: CSIS or INTE | | 3-4 | | |
| **Total Credit Hours Required** | | **64-66** | | |

# Engineering Technology

## A.A.S. Engineering Technology: Construction Management

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 or | 3 | | |
| HIST 121 | United States History since 1865 | | | |
| MATH 120 | College Algebra and | 5-6 | | MATH 110 or satisfactory placement test score |
| MATH 130 | Trigonometry or | | | |
| MATH 150 | Pre-Calculus | | | |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate test score |
| PHYS 101 | Introductory Physics | 5 | | |
| Specific Program Requirements | | | | |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 254 | Business Law or | 3 | | |
| BSAD 270 | Legal Environment of Business | | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| ECON 210 | Macroeconomics | 3 | | MATH 40 or 40L or satisfactory placement test score |
| ENGR 101 | Introduction to the Profession | 1 | | |
| ETEC 152 | Engineering Graphics & CADD I | 5 | | MATH 40 or 40L |
| ETEC 155 | Introduction to Residental Architecture | 3 | | ETEC 152 |
| ETEC 200 | Applied Statics and Mechanics | 3 | | MATH 104 or MATH 130 |
| ETEC 210 | Introduction to Commercial Architecture | 3 | | ETEC 152 and 155 |
| ETEC 211 | Building Information Modeling | 3 | | ETEC 152 |
| SRVY 135 | Elementary Surveying | 3 | | MATH 130 or 150 |
| **Specific Major Requirements (offered at UCM Summit)** | | | | |
| CMGT 1300 | Introduction to Construction Management | 2 | | |
| CMGT 2325 | Project Cost Estimating | 3 | | CMGT 2310 or GRAP 1110 |
| CMGT 3320 | Principles of Construction Management (online) | 3 | | |
| CMGT 3330 | Building Codes & Code Administration (online) | 3 | | CMGT 2310, or consent of instructor |
| **Total Credit Hours Required** | | **65-66** | | |

# Engineering Technology

## A.A.S. Engineering Technology: Mechanical/Manufacturing Emphasis

| General Education Requirements | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | U.S. History to 1865 *or* | | | |
| HIST 121 | U.S. History since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| MATH 130 | Trigonometry *or* | 3 | | MATH 120 or satisfactory score or placement test |
| MATH 150 | PreCalculus | 5 | | MATH 110 or satisfactory score or placement test |
| MATH 180 | Analytic Geometry and Calculus I | 5 | | MATH 130 or 150 |
| **Specific Program Requirements for:** | | | | |
| **Civil & Mechanical/Maufacturing & Architecture** | | | | |
| ETEC 152 | Engineering Graphics and CADD I | 5 | | MATH 40/40L or appropriate placement test score |
| ETEC 153 | Descriptive Geometry | 4 | | ETEC 152 |
| ETEC 200 | Applied Statics & Mechanics | 3 | | MATH 104 or 130 |
| ETEC 268 | Structural Steel Blueprint Reading | 3 | | ETEC 152 |
| ETEC 269 | CADD II | 4 | | ETEC 152 or 169 |
| ENGR 101 | Introduction to the Profession | 1 | | |
| PHYS 130 | General Physics or | 5 | | MATH 130 or appropriate placement test score. |
| PHYS 220 | Engineering Physics | | | Enrollment in or completion of MATH 190 |
| **Specific Emphasis Requirements** | | | | |
| **Mechanical/Manufacturing** | | | | |
| ETEC 258 | Introduction to Machine Design | 3 | | ETEC 152 |
| ETEC 270 | Parametric Modeling *or* | 3 | | ETEC 152 or 169 |
| ETEC 271 | Parametric Modeling, Alternate | | | |
| MATE 116 | Geometric Dimensioning and Tolerancing Printreading | 2 | | MATE 115 |
| MATE 130 | Machining for Related Occupations | 5 | | |
| MATE 210 | Computerized Numerical Control - Lathe *or* | 3 | | MATE 101 or 130. MATH 103 or concurrent enrollment. |
| MATE 215 | Computer Numerical Control - Mill | | | MATE 101 or 130. MATH 103 or concurrent enrollment. |
| MATE 225 | Master Cam I | 3 | | CSIS 110, MATE 210 and 215 |
| **Total Credit Hours Required** | | **68-70** | | |

# Environmental Health & Safety Technology

*Offered at MCC-Business &Technology*

A.A.S. Environmental ............................ 66-69 Credits
A.A.S. Health & Safety .......................... 66-69 Credits
A.A.S. Envir. Health & Safety Tech. ........ 66-69 Credits

Green Manufacturing........................... 19 Credits
Health & Safety Management.............. 28 Credits
Health & Safety Specialist ................... 31 Credits

**Certificates**
    Envir. Health & Safety Tech ................. 34 Credits
    Environmental Specialist ..................... 31 Credits

This program provides a specialized technical background necessary to work in the field of environmental health and safety.

## A.A.S. EHSS Environmental

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ***Choose one of the following:*** BIOL 101 General Biology *or* BIOL 102 Environmental Science *or* BIOL 108 Introductory Anatomy and Physiology *or* BIOL 109 Anatomy and Physiology *or* GEOL 103 Environmental Geology *or* PHYS 101 Physics | | 5-6 | | BIOL 100 or CHEM 105 (BIOL 109) |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score ( |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| CHEM 105 | Introductory Chemistry *or* | 5 | | MATH 20 or two units of high school algebra and CHEM 107 or high school chemistry (CHEM 111) |
| CHEM 111 | General College Chemistry I | | | |
| HIST 120 United States History to 1865 *or* HIST 121 United States History Since 1865 *or* POLS 135 Introduction to Political Science *or* POLS 136 Introduction to American National Politics *or* POLS 137 Introduction to State and Local Politics | | 3 | | |
| BSAD 120 Organizational Development *or* BSAD 221 Business Communications | | 3 | | |
| MATH 103R Technical Math I *or* MATH 103 Technical Mathematics *or* MATH 120 College Algebra *or* MATH 120R College Algebra w/ Review | | 3-5 | | MATH 40/40L (MATH 103) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **General Education Requirements** | | **28-31** | | |
| **Core Program Requirements** | | **22** | | |
| EHSS 101 | Hazardous Waste Operations & Emergency Response (HAZWOPER) | 3 | | |
| EHSS 110 | Properties and Hazards of Hazardous Materials | 3 | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 201 | EHS Laboratory | 1 | | EHSS 101 |
| EHSS 202 | Transportation and Storage of Hazardous Materials | 3 | | EHSS 203 |
| EHSS 203 | Environmental Regulations | 3 | | |
| EHSS 204 | Emergency Preparedness and Planning | 3 | | EHSS 101 |
| EHSS 290 | EHS Program Capstone | 3 | | EHSS 204 |
| EHSS 275 | Analytical Applications for EHS | 3 | | MATH 130 or higher |
| Environmental Emphasis | | | | |
| ***Choose three of the following:*** EHSS 217 Concepts of Sustainability Recycling and Pollution Prevention EHSS 220 Air Quality Management *or* EHSS 225 Water Quality Management *or* EHSS 230 Waste Management | | 9 | | EHSS 101 (EHSS 217) EHSS 203 (EHSS 220) EHSS 203 (EHSS 225) EHSS 203 (EHSS 230) |
| **Total Credit Hours Required** | | **66-69** | | |

# Environmental Health & Safety Technology

## A.A.S. EHSS Health and Safety

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ***Choose one of the following:*** BIOL 101 General Biology *or* BIOL 102 Environmental Science *or* BIOL 108 Introductory Anatomy and Physiology *or* BIOL 109 Anatomy and Physiology *or* GEOL 103 Environmental Geology *or* PHYS 101 Physics | | 5-6 | | BIOL 100 or CHEM 105 (BIOL 109) |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score ( |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| CHEM 105 Introductory Chemistry *or* CHEM 111 General College Chemistry I | | 5 | | MATH 20 or two units of high school algebra and CHEM 107 or high school chemistry (CHEM 111) |
| HIST 120 United States History to 1865 *or* HIST 121 United States History Since 1865 *or* POLS 135 Introduction to Political Science *or* POLS 136 Introduction to American National Politics *or* POLS 137 Introduction to State and Local Politics | | 3 | | |
| BSAD 120 Organizational Development *or* BSAD 221 Business Communications | | 3 | | |
| MATH 103R Technical Math I *or* MATH 103 Technical Mathematics *or* MATH 120 College Algebra *or* MATH 120R College Algebra w/ Review | | 3-5 | | MATH 40/40L (MATH 103) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **General Education Requirements** | | **28-31** | | |
| **Core Program Requirements** | | **22** | | |
| EHSS 101 | Hazardous Waste Operations & Emergency Response (HAZWOPER) | 3 | | |
| EHSS 110 | Properties and Hazards of Hazardous Materials | 3 | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 201 | EHS Laboratory | 1 | | EHSS 101 |
| EHSS 202 | Transportation and Storage of Hazardous Materials | 3 | | EHSS 203 |
| EHSS 203 | Environmental Regulations | 3 | | |
| EHSS 204 | Emergency Preparedness and Planning | 3 | | EHSS 101 |
| EHSS 275 | Analytical Applications for EHS | 3 | | MATH 103 or higher |
| EHSS 290 | EHS Program Capstone | 3 | | EHSS 204 |
| Health & Safety Emphasis | | | | |
| ***Choose three of the following:*** EHSS 205 Principles of Industrial Hygiene *or* EHSS 210 Incident & Accident Investigation *or* EHSS 211 Workers Compensation Legislation for EHS *or* EHSS 218 Industrial Process and Hazard Control | | 9 | | EHSS 200 |
| **Total Credit Hours Required** | | **66-69** | | |

# Environmental Health & Safety Technology

## A.A.S. EHSS Environmental Health and Safety Technology

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ***Choose one of the following:*** BIOL 101 General Biology *or* <br> BIOL 102 Environmental Science *or* <br> BIOL 108 Introductory Anatomy and Physiology *or* <br> BIOL 109 Anatomy and Physiology *or* <br> GEOL 103 Environmental Geology *or* <br> PHYS 101 Introductory Physics | | 5-6 | | BIOL 100 or CHEM 105 (BIOL 109) |
| ENGL 101 Composition and Reading I | | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 Technical Writing | | 3 | | ENGL 101 |
| BSAD 221 Business Communications *or* <br> BSAD 120 Organizational Development | | 3 | | ENGL 30 or appropriate placement test score |
| CHEM 105 Introductory Chemistry *or* <br> CHEM 111 General College Chemistry I | | 5 | | MATH 20 or two units of high school algebra and CHEM 107 or high school chemistry (CHEM 111) |
| HIST 120 United States History to 1865 *or* <br> HIST 121 United States History Since 1865 *or* <br> POLS 135 Introduction to Political Science *or* <br> POLS 136 Introduction to American National Politics *or* <br> POLS 137 Introduction to State and Local Politics | | 3 | | |
| MATH 103R Technical Math I *or* <br> MATH 103 Technical Mathematics *or* <br> MATH 120 College Algebra *or* <br> MATH 120R College Algebra w/ Review | | 3-5 | | MATH 40/40L (MATH 103) |
| SPDR 100 Fundamentals of Speech | | 3 | | ENGL 30 or appropriate placement test score |
| **General Education Requirements** | | **28-31** | | |
| **Core Program Requirements** | | | | |
| EHSS 101 Hazardous Waste Operations & Emergency Response (HAZWOPER) | | 3 | | |
| EHSS 110 Properties and Hazards of Hazardous Materials | | 3 | | |
| EHSS 200 Safety and Health Regulations and Standards | | 3 | | |
| EHSS 201 EHS Laboratory | | 1 | | EHSS 101 |
| EHSS 202 Transportation and Storage of Hazardous Materials | | 3 | | EHSS 203 |
| EHSS 203 Environmental Regulations | | 3 | | |
| EHSS 204 Emergency Preparedness and Planning | | 3 | | EHSS 101 |
| EHSS 275 Analytic Applications for EHS | | 3 | | MATH 103 or higher |
| EHSS 290 EHS Program Capstone | | 3 | | EHSS 204 |
| **Environmental Health & Safety Emphasis** | | | | |
| ***Choose two of the following:*** EHSS 205 Principles of Industrial Hygiene *or* <br> EHSS 210 Incident & Accident Investigation *or* <br> EHSS 211 Workers Compensation Legislation for EHS *or* <br> EHSS 218 Industrial Process & Hazard Control | | 6 | | EHSS 200 |
| ***Choose two of the following:*** EHSS 217 Concepts of Sustainability Recycling and Pollution Prevention *or* <br> EHSS 220 Air Quality Management *or* <br> EHSS 225 Water Quality Management *or* <br> EHSS 230 Waste Management | | 6 | | EHSS 101 (EHSS 217) <br> EHSS 203 (EHSS 220) <br> EHSS 230 (EHSS 225) |
| **Total Credit Hours Required** | | **66-69** | | |

# Environmental Health & Safety Technology

### Environmental Health and Safety Technology Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BSAD 221<br>ENGL 119<br>ENGL 215 | Business Communications *or*<br>Introduction to Report Writing *or*<br>Technical Writing | 3 | | ENGL 30 or appropriate placement test score (BSAD 221)<br>ENGL 101 (ENGL 215) |
| EHSS 101 | Hazardous Material Management and Emergency Response Operations | 3 | | |
| EHSS 110 | Properties and Hazards of Hazardous Materials | 3 | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 202 | Transportation and Storage of Hazardous Materials | 3 | | EHSS 203 |
| EHSS 203 | Environmental Regulations | 3 | | |
| EHSS 204 | Emergency Preparedness and Planning | 3 | | EHSS 101 |
| EHSS 205 | Principles of Industrial Hygiene | 3 | | EHSS 200 |
| EHSS 210<br>EHSS 211 | Incident and Accident Investigation *or*<br>Workers Compensation Legislation for EHS | 3 | | EHSS 200 (EHSS 210) |
| EHSS 217<br><br>EHSS 230 | Concepts of Waste Minimization, Recycling, and Pollution Prevention *or*<br>Waste Management | 3 | | EHSS 101 (EHSS 217) |
| EHSS 290 | EHS Program Capstone | 3 | | EHSS 204 |
| **Total Credit Hours Required** | | **34** | | |

### Environmental Specialist Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BSAD 221 | Business Communications | 3 | | ENGL 30 or appropriate placement test score (BSAD 221) |
| EHSS 101 | Hazardous Material Management and Emergency Response Operations | 3 | | |
| EHSS 110 | Properties and Hazards of Hazardous Materials | 3 | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 202 | Transportation and Storage of Hazardous Materials | 3 | | EHSS 203 |
| EHSS 203 | Environmental Regulations | 3 | | |
| EHSS 204<br>EHSS 217 | Emergency Preparedness and Planning *or*<br>Concepts of Waste Minimization, Recycling, and Pollution Prevention | 3 | | EHSS 101 |
| EHSS 220 | Air Quality Management | 3 | | EHSS 203 |
| EHSS 225 | Water Quality Management | 3 | | EHSS 203 |
| EHSS 290 | EHS Capstone | 3 | | EHSS 204 |
| **Total Credit Hours Required** | | **31** | | |

### Green Manufacturing Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 101 | Hazardous Material Management & Emergency Response Operations | 3 | | |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| EHSS 217 | Concepts of Sustainability, Recycling and Pollution Prevention | 3 | | EHSS 101 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| CIMM 100 | Introduction to Machining and Manufacturing | 3 | | |
| MATE 117 | Processes & Quality | 4 | | |
| **Total Credit Hours Required** | | **19** | | |

# Environmental Health & Safety Technology

## Health and Safety Management Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| BSAD 101 | Accounting Principles I | 3 | | |
| BSAD 105 | Human Resources Management | 3 | | |
| BSAD 120 | Organizational Behavior | 3 | | |
| BSAD 221 | Business communications | 3 | | ENGL 30 or appropriate placement test score |
| Environmental Health and Safety | | | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 210 | Incident and Accident Investigation | 3 | | EHSS 200 |
| EHSS 211 | Workers Compensation Legislation for EHS | 3 | | EHSS 200 |
| EHSS 218 | Industrial Process and Hazard Control | 3 | | EHSS 200 |
| EHSS 290 | EHS Capstone | 3 | | EHSS 204 |
| **Total Credit Hours Required** | | **28** | | |

## Health and Safety Specialist Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| BSAD 221 | Business Communications | 3 | | Satisfactory ASSET score or ENGL 30 (BSAD 221) |
| EHSS 101 | Hazardous Material Management and Emergency Response Operations | 3 | | |
| EHSS 110 | Properties and Hazards of Hazardous Materials | 3 | | |
| EHSS 200 | Safety and Health Regulations and Standards | 3 | | |
| EHSS 202 | Transportation and Storage of Hazardous Materials | 3 | | EHSS 203 |
| EHSS 203 | Environmental Regulations | 3 | | |
| EHSS 204 | Emergency Preparedness and Planning | 3 | | EHSS 101 |
| EHSS 205<br>EHSS 218 | Principles of Industrial Hygiene *or*<br>Industrial Process and Hazard Control | 3 | | EHSS 200 (EHSS 205)<br>EHSS 200 (EHSS 218) |
| EHSS 210<br>EHSS 211 | Incident and Accident Investigation *or*<br>Workers Compensation Legislation for EHS | 3 | | EHSS 200 |
| EHSS 290 | EHS Capstone | 3 | | EHSS 204 |
| **Total Credit Hours Required** | | **31** | | |

# Fire Science Technology

*Offered at MCC-Blue River*

A.A.S. Fire Science Technology ............ 67-69 Credits
Fire Science Certificate ....................... 32 Credits

This program, which offers an Associate in Applied Science degree and certificate, provides advanced professional training in fire science.

Most metropolitan fire departments require FFI and FFII certification prior to employment. The Public Safety Institute of MCC-Blue River satisfies all requirements for FFI and FFII as well as CPAT, Haz-Mat awareness, Haz-Mat operations, and EMT. The Academy offers two levels of firefighting training. Full-time day and part-time night classes are available.

Successful graduates of the Academy will obtain their state certification in the above mentioned areas.

## A.A.S. Fire Science Technology

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement score |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| General Education elective 100 or above | | 3-5 | | |
| **Specific Program Requirements** | | | | |
| EMS 150 | Emergency Medical Technician-Basic | 8 | | Student must be 18 years old by the end of the course |
| FSTE 161 | Fire Investigation I | 3 | | FSTE 204, FSTE 205 |
| FSTE 169 | Fire Prevention | 3 | | |
| FSTE 170 | Haz-Mat Awareness and Operations | 3 | | |
| FSTE 172 | Strategies and Tactics | 3 | | FSTE 104 |
| FSTE 179 | Principles of Emergency Services | 4 | | |
| FSTE 192 | Fire Protection Systems | 3 | | |
| FSTE 193 | Legal Aspects of the Fire Service | 3 | | |
| FSTE 202 | Intro to Fire and Emergency Services Administration | 3 | | |
| FSTE 203 | Managing in Today's Fire Service/ Capstone | 3 | | FSTE 200, 204 |
| FSTE 204 | Principles of Fire Emergency Safety and Survival | 3 | | |
| FSTE 205 | Fire Behavior and Combustion | 3 | | |
| FSTE 206 | Fire Investigation II | 3 | | |
| FSTE 107 | Fire Science Physical Fitness I | 1 | | Enrollment in Fire Academy |
| FSTE 108 | Fire Science Physical Fitness II | 1 | | FSTE 107 |
| FSTE 109 | Fire Science Physical Fitness III | 1 | | FSTE 108 |
| **Total Credit Hours Required** | | **67-69** | | |

# Fire Science Technology

## Fire Science Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| EMS 150 | Emergency Medical Technician-Basic | 8 | | The student must be 18 years old by the end of the course and must hold a high school diploma or GED. |
| FSTE 161 | Fire Investigation I | 3 | | FSTE 204, FSTE 205 |
| FSTE 169 | Fire Prevention | 3 | | |
| FSTE 170 | Haz-Mat Awareness and Operations | 3 | | |
| FSTE 179 | Principles of Emergency Services | 4 | | |
| FSTE 189 | Fire Fighter II | 4 | | FSTE 179 |
| FSTE 107 | Fire Science Physical Fitness I | 1 | | Enrollment in MCC Fire Academy |
| FSTE 108 | Fire Science Physical Fitness II | 1 | | FSTE 107 |
| FSTE 109 | Fire Science Physical Fitness III | 1 | | FSTE 108 |
| FSTE 204 | Principles of Fire Emergency Safety and Survival | 3 | | |
| **Total Credit Hours Required** | | **32** | | |

# Foreign Language Interpreting

*Offered at MCC-Maple Woods*

Foreign Language
Interpreting Certificate ......................... 16 Credits

This program provides students with the fundamentals of foreign language interpreting with an emphasis in medical and legal settings. Admission to the program required.

## Foreign Language Interpreting Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| FLIN 100 | Introduction to Interpreting | 3 | | Admission to certificate program |
| FLIN 105 | Fundamentals of Interpreting | 3 | | FLIN 100 or concurrent enrollment |
| FLIN 110 | Medical Interpreting | 3 | | FLIN 105 |
| FLIN 115 | Legal Interpreting | 3 | | FLIN 105 |
| FLIN 120 | Practicum | 3 | | FLIN 110 and FLIN 115 |
| **Total Credit Hours Required** | | **16** | | |

# Forensic Chemistry

*Offered at Kansas City Kansas Community College*
*Coordinated at MCC*

**A.A.S. Forensic Chemistry .................... 68-70 Credits**

There are two goals for this program: 1) direct placement into a crime or chemistry related laboratory, or 2) continuation of degree in forensics, chemistry, dentistry, pre-law, pre-med, environmental science, etc.

Students must be accepted into the program by both MCC and KCKCC. The student is awarded the degree from KCKCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Forensic Chemistry

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| BIOL Electives Any Biology course except BIOL 204 | 4-5 | | See Courses section of this catalog for individual course prerequisites. |
| CHEM 111    General College Chemistry I | 5 | | MATH 120 or two units of high school algebra and CHEM 107 or high school chemistry |
| CHEM 112    General College Chemistry II | 5 | | CHEM 111 |
| CRJU 165    Criminology | 3 | | |
| ENGL 101    Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102    Composition and Reading II | 3 | | ENGL 101 |
| MATH 180    Analytic Geometry & Calculus I | 5 | | MATH 130 or 150 |
| PHYS    Physics Electives | 4-5 | | |
| SPDR 100    Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Humanities Core Elective: Choose two of the following:<br>Literature, Philosophy, ART 108, MUSI 108, HIST/HUMN 133, or HIST/HUMN 134 | 6 | | See Courses section of this catalog for individual course prerequisites. |
| Suggested Social Science Core Electives Include:<br>PSYC 140, SOCI 160, ANTH 100 | 3 | | |
| Specific Program Requirements<br>*Must be taken at Kansas City Kansas Community College* | | | |
| HUDV 100/101 Strategies for Academic Excellence/ Lifelong Learning | 1-2 | | |
| CHEM 101    Introduction to Forensic Science | 5 | | |
| CHEM 201    Forensic Science Analytical Techniques | 3 | | |
| CHEM 211    Organic Chemistry I | 3 | | |
| CHEM 213    Organic Chemistry I Lab | 2 | | |
| CHEM 212    Organic Chemistry II | 3 | | |
| CHEM 214    Organic Chemistry II Lab | 2 | | |
| *Recommended Courses (not necessary for degree):*<br>CHEM 250    Biochemistry<br>CHEM 251    Biochemistry Lab | 2-4 | | |
| **Total Credit Hours Required** | **68-70** | | |

# Game Development

*Offered at JCCC . Coordinated at all campuses.*

**A.A.S. Game Development .......................... 64 credits**

The game development Associate in Applied Science degree provides students with the focused knowledge and understanding of game design and development useful in qualifying for entry level industry positions as game programmers, tool builders, collision detections developers, engine builders and interface programmers as well as video and online training developers, Q/A (Question/Answer) Testers, customer supporters and simulations developers.

Completion of this degree program will greatly enhance students' ability to create code for 2D/3D graphics and real time virtual environments. Additional skills will include an understanding of game ethics, of the proper presentation of "game bibles" and of math and physics required to model a realistic game world. Program course and credit hours are subject to change because of the requirement changes at the degree-granting institution. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Game Development

| Specific Program Requirements (Must be taken at JCCC) | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| GAME 102    The Business of Games | 3 | | |
| GAME 104    Introduction to Game Development | 1 | | |
| GAME 105    Beginning Game Creation | 3 | | |
| GAME 180    Artificial Intelligence for Games* | 3 | | |
| GAME 240    Agile Game Development* | 2 | | |
| GAME 250    Game Capstone* | 4 | | |
| Game Elective | 3 | | |
| Design Track Courses    *or*<br>Programming Track Courses | 28 | | |
| **Design Track Courses** | | | |
| ENGL 150    Digital Narratives* | 3 | | |
| GAME 120    Game Design I* | 4 | | |
| GAME 132    Game Level Editing* | 4 | | |
| GAME 134    Game World Creation* | 4 | | |
| GAME 136    Game Prototyping* | 4 | | |
| GAME 220    Game Design II* | 4 | | |
| GAME 235    Game Quality Assurance* | 2 | | |
| GAME 238    Serious Game Design* | 3 | | |
| **Programming Track Courses** | | | |
| CS 201        Concepts of Programming Algorithms Using C#* | 4 | | |
| CS 236        Object-Oriented Programming Using C#* | 4 | | |
| GAME 110    Flash Gaming | 4 | | |
| GAME 121    Game Programming I* | 4 | | |
| GAME 221    Game Programming II* | 4 | | |
| GAME 255    Mobile Game Programming* | 4 | | |
| MATH 191    Math & Physics for Games I*    *or*<br>PHYS 191    Math & Physics for Games I* | 4 | | |
| **Game Electives** | | | |
| GAME 110    Flash Gaming | 4 | | |
| GAME 120    Game Design I* | 4 | | |
| GAME 121    Game Programming I* | 4 | | |
| GAME 132    Game Level Editing* | 4 | | |
| GAME 134    Game World Creation* | 4 | | |
| GAME 136    Game Prototyping* | 4 | | |
| GAME 220    Game Design II* | 4 | | |
| GAME 221    Game Programming II* | 4 | | |
| GAME 235    Game Quality Assurance* | 2 | | |
| GAME 238    Serious Game Design* | 3 | | |
| GAME 255    Mobile Game Programming* | 4 | | |
| GAME 292    Special Topics:* | 3 | | |
| ENGL 150    Digital Narratives* | 3 | | |
| HUM 155    Classical Mythology | 3 | | |
| HUM 156    World Mythology | 3 | | |
| * Prerequisite/Corerequisite required | | | |

# Game Development

## A.A.S. Game Development continued...

| Specific Programs Requirement- Must be taken at MCC | Credits | Semester Taken | Prerequisites/Equivalences |
|---|---|---|---|
| CSIS 123     Programming Fundamentals | 3 | | |
| ENGL 101     Composition & Reading I | 3 | | |
| MATH 120    College Algebra | 3 | | |
| SPDR 100    Fundamentals of Speech *or* <br> SPDR 102    Fundamentals of Human Communication *or* <br> SPDR 103    Interpersonal Communication | 3 | | |
| Humanities Elective | 3 | | |
| Social Science/Economics Elective | 3 | | |
| Physical Education Elective | 1 | | |
| **Total Credit Hours Required** | **66** | | |
| **Social Science and Economics Electives that will transfer from MCC to JCCC:** <br> ANTH 100, ANTH 110, ANTH 120, ECON 110, ECON 210, ECON 211, GEOG 111, GEOG 112, POLS 135, POLS 136, POLS 137, POLS 234, PSYC 140, SOCI 160, SOCI 163, SOCI 170, SOCI 220 <br> **Health, Physical Education & Recreation Electives that will transfer from MCC to JCCC:** <br> DANC 100, DANC 111, DANC 121, DANC 122, EMS 100, PHED 105, PHED 106, PHED 107, PHED108, PHED 109, PHED 110, PHED 113, PHED 114, PHED 117, PHED 118, PHED 119, PHED 120, PHED 121, PHED 122, PHED 123, PHED 126, PHED 127, PHED 128, PHED 129, PHED 130, PHED 131, PHED 135, PHED 136, PHED 137, PHED 141, PHED 142, PHED 143, PHED 144, PHED 145, PHED 146, PHED 147, PHED 157, PHED 158, PHED 159, PHED 165, PHED 166, PHED 167, PHED 168, PHED 173, PHED 174, PHED 178, PHED 179, PHED 180 | | | |

# Geographic Information Systems

*Offered at MCC-Maple Woods and MCC-Longview*

Geographic Information Systems
Certificate ....................................... 34-40 Credits

This is a professional certificate that gives the GIS user the tools needed to obtain a good job in the field of GIS or to advance in their chosen field. It also prepares students to complete their AA degree or transfer to a four-year institution. GIS professionals are found in the fields of city, county and state government, economics, natural resources, conservation, pollution, industry, science, infrastructure planning, public works, transportation, architecture, education, healthcare, travel, and space industry.

## Geographic Information Systems Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **Specific Program Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| GEOG 120 Introduction to Geographic Information Systems | 3 | | |
| GEOG 220 GIS Database and Design | 3 | | GEOG 120 |
| GEOG 224 Applications in Geographic Information Systems | 3 | | GEOG 120 and 220 |
| GEOG 228 Administrative Issues in GIS | 3 | | GEOG 120 |
| GEOG 230 Geographic Information Systems Internship | 1-3 | | GEOG 120 and 220 |
| *One of the following:*<br>CSIS 128 Web Development<br>CSIS 143 Database Design and Management<br>CSIS 177 Database Application and Design with Access | 3 | | CSIS 110 or 115 (CSIS 128)<br>CSIS 110 or 115 (CSIS 143)<br>One Windows based course (CSIS 177) |
| *One of the following:*<br>GEOG 105 World Geography<br>GEOG 113 Cultural/Human Geography<br>GEOG 114 Introduction to Geography<br>GEOG 207 Geography of the United States and Canada<br>GEOG 210 Economic Geography | 3 | | |
| *One of the following:*<br>GEOG 104 Physical Geography<br>GEOL 101 Physical Geology<br>GEOL 103 Environmental Geology | 5 | | |
| *Two courses from the following (not taken above):*<br>BIOL 101, 104, 106, 117<br>BSAD 204, 205, 210, 211, 212, 213<br>CSIS 128, 143, 177<br>CRJU 101, 112, 132<br>ETEC 152, 169<br>ECON 110, 210, 211<br>GEOG 104, 105, 110, 113, 114, 207, 210<br>GEOL 101, 103<br>SRVY 135, 137, 240 | 6-10 | | See Courses section of this catalog for individual course prerequisites. |
| **Total Credit Hours Required** | **34-40** | | |

# Graphic Design

*Offered at MCC-Penn Valley*

A.A.S. Graphic Design................................ 64 Credits

This program leads to the Associate in Applied Science degree and prepares students for jobs as graphic designers or transfer to a four-year degree program.

## A.A.S. Graphic Design

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ART 103 | Design Foundations | 3 | | |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 119 | College Math or higher | 3 | | MATH 20 or 20L or appropriate placement test score |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| Any ART History course | | 3 | | |
| Specific Program Requirements | | | | |
| GDES 110 | Computers in Design I | 3 | | |
| ART 110 | Drawing I | 3 | | |
| ART 115 | Orientation to Graphic Communications* | 3 | | |
| ART 123 | Color Theory | 3 | | ART 103 or concurrent enrollment |
| GDES 160 | Graphic Design I* | 3 | | GDES 150 or concurrent enrollment, READ 11/31 or higher, formal acceptance |
| GDES 150 | Computers in Design II | 3 | | GDES 110 |
| ART 247<br>ART 282<br>ART 139 | Digital imaging *or*<br>Graphic Media - Advanced Color Correction *or*<br>Film & Darkroom Photography | 3 | | GDES 110 (ART 247)<br>GDES 110 and ART 115 (ART 282) |
| ART 250<br>ART 254 | Printmaking *or*<br>Silk Screen Printing I | 3 | | |
| GDES 210 | Graphic Design II* | 3 | | GDES 160 |
| GDES 245 | Web Design* | 3 | | GDES 150 or equivalent |
| GDES 250 | Graphic Design III* | 3 | | GDES 210 or concurrent enrollment |
| GDES 255 | Advanced Web Design* | 3 | | GDES 245 |
| ART 281 | Introduction to Graphic Media - File Preparation* | 3 | | GDES 110 and ART 115 |
| GDES 264 | Art Portfolio- Graphic Design | 3 | | GDES 210 or concurrent enrollment |
| ART | Elective | 6 | | |
| **Total Credit Hours Required** | | **64** | | |

Recommended Electives (suggested categories based on student intent

| **Graphic Design** | | **Illustration** | | **Graphic Media emphasis** | | **Transfer** | |
|---|---|---|---|---|---|---|---|
| GDES 290* | GD Internship | ART 105 | Digital Art Foundations | ART 282* | GM-Adv Color CX | ART 111 | Drawing II |
| ART 157* | History of GD | ART 270* | Illustration | ART 283* | Adv Graphic Media | ART 220 | Painting I |
| ART 283* | GM-Adv. Color Cx | ART 111 | Drawing II | ART 247* | Digital Imaging | ART 170 | Ceramics |
| ART 104 | 3D Animation | ART 112 | Drawing III | | | | |
| ART 280* | Spec. Studies (in GD) | ART 113 | Drawing IV | | | | |
| ART 139* | Film and Darkroom | ART 220 | Painting I | | | | |
| | Photography | ART 221 | Painting II | | | | |
| ART 247 | Digital Imaging | ART 222 | Painting III | | | | |
| ART 242 | Photography II | APTX 130* | Fashion Illustration | | | | |
| ART 282 | Adv GM-Adv Color CX | | and Technical Drawing | | | | |
| ART 204 | 3D Animation II | ART 131* | Fashion Illustration II | | | | |

* These courses are only offered on the Penn Valley campus.

# Graphic Media

*Offered at MCC-Penn Valley*

Graphic Media Technician Certificate ............25 Credits

This program, which leads to a certificate, is for students who want a career in printing and printers who want to update their skills.

## Graphic Media Technician Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| GDES 110 | Computers in Design I | 3 | | |
| ART 115 | Orientation to Graphic Communications | 3 | | |
| GDES 202 | Computers in Design II | 3 | | GDES 110 |
| ART 281 | Introduction to Graphic Media - File Preparation | 3 | | ART 115 and GDES 110 |
| ART 282 | Graphic Media - Advanced Color Correction | 3 | | ART 115 and GDES 110 |
| ART 283 | Advanced Graphic Media | 3 | | ART 115, 281, 282, GDES 150 |
| ART 285 | Variable Data Publishing | 3 | | ART 281 and 282, GDES 150 |
| ART 290 | Graphic Media Internship | 3 | | ART 283 and 285 |
| **Total Credit Hours Required** | | **25** | | |

# Grounds and Turf Management

*Offered at MCC-Longview*

A.A.S. Grounds & Turf Management.......... 64 Credits
    Grounds Maintenance Certificate ....... 19 Credits
    Horticulture Certificate (JCCC) ........... 31 Credits
    Sustainable Agriculture Certificate (JCCC)
    ........................................................ 29 Credits

This program leads to an Associate in Applied Science degree and a certificate of proficiency in Grounds Maintenance and prepares students for jobs in the groundskeeping and turf management industry. The Horticultural and Sustainability certificates are offered through Johnson County Community College. Students must be accepted into the program by both MCC and JCCC. The student is awarded the certificate from JCCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment in the certificate programs.

## A.A.S. Grounds & Turf Management

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| BIOL 104 | General Botany | 5 | | |
| BIOL 202 | Ecology | 5 | | BIOL 101 or 104 or 106 |
| CHEM 107 | Preparatory General Chemistry | 5 | | MATH 110 (or equivalent score on placement test) or one unit of High School Algebra |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100 | Mathematics for Business | 3 | | MATH 20 or 20L or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| AGBS 100 | Introduction to Urban Agribusiness | 3 | | |
| AGBS 106 | Landscape Design and Maintenance | 3 | | |
| AGBS 107 | Deciduous Trees and Shrubs | 3 | | |
| AGBS 109 | Pest Management/Turf and Ornamental | 3 | | |
| AGBS 115 | Soil Fertility and Fertilizers | 3 | | |
| AGBS 135 | Turfgrass Management I | 3 | | |
| AGBS 145 | Irrigation and Installation | 3 | | |
| *12 hours from the courses listed below:*<br>AGBS 108    Evergreens and Herbaceous Plants<br>AGBS 140    Turfgrass Management II<br>AGBS 151    Special Topics in Horticulture I<br>AGBS 152    Special Topics in Horticulture II<br>AGBS 153    Special Topics in Horticulture III<br>AGBS 200    Occupational Internship<br>AGBS 206    Advanced Landscape Design and Maintenance | | 12 | | AGBS 106 (AGBS 206) |
| **Total Credit Hours Required** | | **64** | | |

# Grounds and Turf Management

## Grounds Maintenance Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| AGBS 100 Introduction to Urban Agribusiness | 3 | | |
| AGBS 106 Landscape Design and Maintenance | 3 | | |
| AGBS 107 Deciduous Trees and Shrubs | 3 | | |
| AGBS 115 Soil Fertility and Fertilizers | 3 | | |
| AGBS 135 Turfgrass Management I | 3 | | |
| AGBS Elective | 3 | | |
| **Total Credit Hours Required** | **19** | | |

## Horticulture Certificate

| Specific Program Requirements<br>*Must be taken at MCC* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| AGBS 135 Turfgrass Management I | 3 | | |
| AGBS 206 Advanced Landscape Design & Maintenance | 3 | | |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | |
| HORT 135 Landscape Design | 3 | | |
| HORT 201 Intro to Horticulture | 4 | | |
| HORT 205 Plant Propagation | 3 | | |
| HORT 214 Woody Plants I, Deciduous | 3 | | |
| HORT 215 Woody Plants II, Evergreen | 3 | | |
| HORT 220 Herbaceous Plants | 3 | | |
| HORT 225 Plant Problems* | 3 | | HORT 214 and 220 |
| Electives<br>*May be taken at Metropolitan Community College or Johnson County Community College* | | | |
| Choose (3) credit hours from the following:<br>May be taken at JCCC:<br>SPD 128 Business and Professional Speech<br>HORT 150 Fruits, Vegetables, and Herb Crops<br>HORT 160 Garden Center Operations<br>HORT 255 Landscape Pest Control<br>HORT 260 Soils<br>HORT 270 Horticulture Internship<br>May be taken at MCC:<br>BSAD 219 Entrepreneurship<br>BSAD 150 Introduction to Business | | | |
| **Total Credit Hours Required** | **31** | | *Prerequisite/corequisite required |

## Sustainable Agriculture Certificate

| **Specific Program Requirements: Must be Taken at JCCC** | | | |
|---|---|---|---|
| HMGT 165 Food Industry Compliance & Safety | 3 | | |
| HMGT 167 Local Food Production | 3 | | |
| HORT 245 Commercial Crop Production | 3 | | |
| HORT 260 Horticulture Soils | 3 | | |
| HORT 272 Sustainable Agriculture Fall Practicum | 2 | | |
| HORT 274 Sustainable Agriculture Spring Practicum | 2 | | |
| HORT 276 Sustainable Agriculture Summer Practicum | 2 | | |
| **Specific Program Requirements: Must be Taken at MCC** | | | |
| AGBS 109 Pest Management/Turf and Ornamental | 3 | | |
| **Elective Program Requirements** | | | |
| **May be taken at JCCC or MCC** | | | |
| **Electives: May be taken at JCCC** | | | |
| BIOL 134 Principles of Sustainability | 3 | | |
| ENTR 142 Fast Trac Business Plan | 3 | | |
| ENTR 180 Opportunity Analysis | 2 | | |
| SOC 205 Sociology of Food | 3 | | |
| HORT 165 Arboriculture | 3 | | |
| HORT 201 Intro to Horticultural Science | 4 | | |
| **Electives: May be taken at MCC** | | | |
| BSAD 219 Entrepreneurship | 3 | | |
| BSAD 150 Introduction to Business | 3 | | |
| **Total Credit Hours Required** | **29** | | |

# Health Information Technology

*Offered at MCC-Penn Valley*

A.A.S. Health Information Technology ........70.5 Credits
    Coding Specialist Certificate ...............35.5 Credits

   An introduction to information technology specific to healthcare and health information management. Topics include computer hardware, operating systems, networking concepts, programming languages, and user interfaces specific to healthcare. Special emphasis is placed on the practical application of database management principles, including the design and normalization of data tables, data security, and information retrieval and reporting inherent in electronic health records management.

   This program offers an Associate in Applied Science degree and a Coding Specialist certificate. The program prepares students in all aspects pertaining to health records, including medical coding, Medicare compliance, analysis of documentation and computerization. Graduates of the A.A.S. program are eligible to take the national certification exam for registered health information technicians. The program is accredited by Commission on Accreditation of Health Informatics and Health Information Management.

### Admission to the Program
   Since enrollment is limited, students must apply for admission to the Health Information Technology program. For more information, go to **www.mcckc.edu/hite**

## A.A.S. Health Information Technology

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 108 | Introductory Anatomy and Physiology | 5.0 | | |
| BIOL 137 | Intro to Pathology | 4.0 | | BIOL 108 |
| ENGL 101 | Composition and Reading I | 3.0 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3.0 | | |
| SPDR 100 | Fundamentals of Speech | 3.0 | | ENGL 30 |
| Elective (PSYC 140 Strongly Recommended) | | 3.0 | | |
| **Specific Program Requirements** | | | | |
| CSIS 115 | Intro to Microcomputer Applications | 3.0 | | |
| HITE 101 | Intro to Health Information Technology Profession | 2.0 | | |
| HITE 102 | Health Record Systems, Analysis and Control | 3.5 | | |
| HITE 103 | Medical Terminology for Health Records | 3.0 | | |
| HITE 106 | Health Care Statistics | 3.0 | | HITE 102 |
| HITE 108 | Legal Aspects of Health Information | 3.0 | | HITE 102 |
| HITE 109 | Professional Practice I | 2.5 | | BIOL 108 and HITE 102 |
| HITE 110 | Pharmacology | 1.5 | | BIOL 108 and HITE 103 |
| HITE 200 | Intro to Classification Systems | 1.0 | | |
| HITE 201 | Quality Management | 3.0 | | HITE 108 |
| HITE 202 | Classification Systems, Nomenclatures, Indexes, and Registers I | 4.0 | | HITE 200 |
| HITE 203 | Professional Practice II | 2.0 | | BIOL 108, HITE 202 and 210; or BIOL 108 and concurrent enrollment in HITE 202 and 210 |
| HITE 207 | Classification Systems, Nomenclatures, Indexes, and Registers II | 3.0 | | BIOL 108 and HITE 202 |
| HITE 208 | Professional Practice III | 2.0 | | HITE 203 |
| HITE 210 | Classification Systems and Nomenclatures for Ambulatory Care | 3.0 | | HITE 200, BIOL 108 or concurrent enrollment in BIOL 108 |
| HITE 214 | Introduction to Healthcare Reimbursement | 3.0 | | HITE 202 and HITE 210 |
| HITE 211 | Organization and Administration in Health Information | 3.0 | | HITE 201, 202 and 203 |
| HITE 216 | Technology for Health Information | 3.0 | | HITE 102 and CSIS 115 |
| **Total Credit Hours Required** | | **70.5** | | |

# Health Information Technology

## Coding Specialist Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 108 | Introductory Anatomy and Physiology | 5.0 | | |
| BIOL 137 | Introduction to Pathology | 4.0 | | BIOL 108 |
| CSIS 115 | Introduction to Microcomputer Applications | 3.0 | | |
| HITE 103 | Medical Terminology for Health Records | 3.0 | | |
| HITE 110 | Pharmacology | 1.5 | | BIOL 108 and HITE 103 |
| HITE 200 | Introduction to Classification Systems | 1.0 | | |
| HITE 202 | Classification Systems, Nomenclatures, Indexes, and Registers I | 4.0 | | HITE 200 |
| HITE 203 | Professional Practice II | 2.0 | | BIOL 108, HITE 202 and 210; or BIOL 108 and concurrent enrollment in HITE 202 and 210 |
| HITE 207 | Classification Systems, Nomenclatures, Indexes, and Registers II | 3.0 | | BIOL 108 and HITE 202 |
| HITE 208 | Professional Practice III | 2.0 | | HITE 203 |
| HITE 210 | Classification Systems and Nomenclatures for Ambulatory Care | 3.0 | | HITE 200, BIOL 108 or concurrent enrollment in BIOL 108 |
| HITE 214 | Introduction to Healthcare Reimbursement | 3.0 | | HITE 202 and HITE 210 |
| **Total Credit Hours Required** | | **35.5** | | |

# Heating, Ventilation, Air Conditioning & Refrigeration

*Offered at MCC-Business & Technology*

A.A.S. HVAC.......................................... 64-67 Credits
    Energy Efficiency Certificate................ 43 Credits
    HVAC Advanced Certificate ............ 42-43 Credits
    HVAC Certificate.................................. 24 Credits

This program offers degree and certificate options leading to heating, ventilation and air conditioning careers.

## A.A.S. Heating, Ventilation and Air Conditioning

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | <br>Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>PreCalculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 or 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 4-5 | | See Courses section of this catalog for individual course prerequisites. |
| **Specific Program Requirements** | | | | |
| EHSS 111<br>EHSS 112 | Intro to Health & Safety for General Industry *or*<br>Intro to Health & Safety for Construction | 1 | | |
| HVAC 109 | Electricity for HVAC/R Technicians | 4 | | |
| HVAC 109 | Electricity for HVAC/R Technicians | 4 | | |
| HVAC 111 | Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 120 | Fundamentals of Refrigeration | 4 | | |
| HVAC 135 | Residential Heating and Air Conditioning I | 4 | | HVAC 109 (or take concurrently), HVAC 111, 120 |
| HVAC 136 | Residential Heating and Air Conditioning II | 4 | | HVAC 135 |
| HVAC 221 | Commercial Refrigeration | 4 | | HVAC 109, 120, 136 |
| HVAC 230 | Sheet Metal Layout and Fabrication | 4 | | |
| HVAC 235 | Systems Installation | 3 | | HVAC 136 and 230 |
| HVAC 240 | Geo-Thermal & Air Source Heat Pumps | 3 | | HVAC 136 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOS 100 or CSIS 115 |
| INTE 224 | Energy Management, Efficiency and Conservation | 3 | | |
| *6 hours from the following:*<br>HVAC/INTE/WELD electives | | 6 | | |
| **Total Credit Hours Required** | | **64-67** | | |

# Heating, Ventilation, Air Conditioning & Refrigeration

## Energy Efficiency Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| HVAC Job Ready Certificate | | 24 | | |
| HVAC 240 | Geo-Thermal Heat Pumps | 3 | | HVAC 136 |
| HVAC 201 | Stationary Engineering | 3 | | HVAC 111 and 120 |
| INTE 224 | Energy Management, Efficiency, and Conservation | 2 | | CSOF 100 or CSIS 115 or higher |
| GEOL 180 | Energy and the Environment | 3 | | |
| BSAD 219 | Entrepreneurship | 5 | | |
| *Includes HVAC 109, 111, 120, 135, 136, 230 | | 3 | | |
| **Total Credit Hours Required** | | **43** | | |

## Heating, Ventilation and Air Conditioning Advanced Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| HVAC 109 | Electricity for HVAC/R Technicians | 4 | | |
| HVAC 111 | Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 120 | Fundamentals of Refrigeration | 4 | | |
| HVAC 135 | Residential Heating and Air Conditioning I | 4 | | HVAC 109 (or take concurrently), HVAC 111, 120 |
| HVAC 136 | Residential Heating and Air Conditioning II | 4 | | HVAC 135 |
| HVAC 221 | Commercial Refrigeration | 4 | | HVAC 109, 120, and 136 |
| HVAC 230 | Sheet Metal Layout and Fabrication | 4 | | |
| HVAC 235 | Systems Installation | 3 | | HVAC 136 and 230 |
| HVAC 240 | Geo-Thermal & Air Source Heat Pumps | 3 | | HVAC 136 |
| HVAC 201<br>INTE 224 | Stationary Engineering or<br>Energy Management, Efficiency, and Conservation | 3 | | HVAC 111 and 120 (HVAC 201)<br>HVAC 109 and INTE 115 (INTE 175) |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| MATH 103R | Technical Mathematics I w/ Review or higher | 3-4 | | MATH 40 or 40L |
| **Total Credit Hours Required** | | **42-43** | | |

## Heating, Ventilation and Air Conditioning Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| HVAC 109 | Electricity for HVAC/R Technicians | 4 | | |
| HVAC 111 | Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 120 | Fundamentals of Refrigeration | 4 | | |
| HVAC 135 | Residential Heating and Air Conditioning I | 4 | | HVAC 109 (or take concurrently), HVAC 111, 120 and 230 (or take concurrently) |
| HVAC 136 | Residential Heating and Air Conditioning II | 4 | | HVAC 135 |
| HVAC 230 | Sheet Metal Layout and Fabrication | 4 | | |
| **Total Credit Hours Required** | | **24** | | |

# Hospitality Management

*Offered at Johnson County Community College*
*Coordinated at MCC*

**A.A.S. Hospitality Mgmt.**
    Chef Apprenticeship ............................ 75 Credits
    Food and Beverage ............................. 66 Credits
    Hotel and Lodging ............................... 64 Credits

**Dietary Manager Certificate** ....................... 27 Credits

This program leads to an Associate in Applied Science degree with three options: Chef Apprenticeship, Hotel and Lodging, and Food and Beverage as well as Dietary Manager certificate. It provides an overview of the various departmental functions, the position of the industries in the American economic system, and the functions and limitations of those types of establishments. Students must be accepted into the program by both MCC and Johnson County Community College. The student is awarded the degree from JCCC upon successful completion of all requirements.

Program courses and credit hours are subject to change because of requirement changes at the degree-granting institution. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Hospitality Mgmt. Chef Apprenticeship

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| CSIS ___ | Computer Science Elective | 1 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HUMN ___ | Humanities Elective | 3 | | See Courses section of this catalog for individual course prerequisites. |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100<br>SPDR 102<br>SPDR 103 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication *or*<br>Interpersonal Communications | 3 | | ENGL 30 or appropriate placement test score (SPDR 102) |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | | |
| HMEC 151 | Nutrition and Meal Planning | 3 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites.<br><br>**Humanities Electives that will transfer from MCC to JCCC:** ART 108, ART 150, ART 151, ART 159, ENGL 120, ENGL 121, ENGL 122, ENGL 124, ENGL 127, ENGL 128, ENGL 142, ENGL 150, ENGL 151, ENGL 165, ENGL 167, ENGL 220, ENGL 221, ENGL 222, ENGL 223, FREN 203, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 133, HIST 134, HIST 140, HUMN 140, HUMN 145, MUSI 108, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 114, SPDR 128<br><br>**Computer Electives that will transfer from MCC to JCCC:** CSOF 100, CSOF 101, CSOF 102, CSOF 103, CSOF 104, CSOF 106, CSIS 115 |
| HMGT 120 | Food Service Sanitation | 1 | | |
| HMGT 121 | Perspectives of Hospitality Management | 3 | | |
| HMGT 123 | Professional Cooking I* | 3 | | |
| HMGT 128 | Supervisory Management* | 3 | | |
| HMGT 220 | American Regional Cuisine* | 3 | | |
| HMGT 223 | Fundamentals of Baking | 3 | | |
| HMGT 226 | Garde-Manger* | 3 | | |
| HMGT 228 | Advanced Hospitality Management* | 3 | | |
| HMGT 230 | Professional Cooking II* | 3 | | |
| HMGT 231 | Advanced Food Preparation* | 4 | | |
| HMGT 271 | Seminar in Hospitality Management: Purchasing | 3 | | |
| HMGT 273 | Hospitality Cost Accounting* | 3 | | |
| HMGT 277 | Seminar in Hospitality Management: Menu Planning* | 3 | | |
| HMGT 279 | Beverage Control | 3 | | |
| HMGT 281 | Culinary Arts Practicum I* | 2 | | |
| HMGT 282 | Culinary Arts Practicum II* | 2 | | |
| HMGT 285 | Culinary Arts Practicum III* | 2 | | |
| HMGT 286 | Culinary Arts Practicum IV* | 2 | | |
| HMGT 287 | Culinary Arts Practicum V* | 2 | | |
| HMGT 288 | Culinary Arts Practicum VI* | 2 | | |
| HMGT ___ | Hospitality Program Elective | 3 | | |
| Hospitality Program Electives | | | | |

# Hospitality Management

| Humanities Electives that will transfer from MCC to JCCC: |
| --- |
| ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, GERM 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 134, HIST 140, HIST 150, HUMN 103, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128 |
| **Computer Electives that will transfer from MCC to JCCC:** |
| CSOF 100, CSOF 101, CSOF 102, CSOF 103, CSOF 104, CSOF 106, CSIS 115 |

| | | | |
| --- | --- | --- | --- |
| HMGT 126 Food Management* 4 | | | |
| HMGT 130 Hospitality Law 3 | | | |
| HMGT 132 Seminar in Housekeeping Operations 3 | | | |
| HMGT 150 Sem: Food Service Sales & Marketing 3 | | | |
| HMGT 203 Hotel Sales & Marketing* 3 | | | |
| HMGT 207 Hospitality Human Resource Management* 3 | | | |
| HMGT 221 Design & Facilities Management* 3 | | | |
| HMGT 240 Advanced Baking* 4 | | | |
| HMGT 248 Confectionery Arts 3 | | | |
| HMGT 250 Introduction to Catering 3 | | | |
| HMGT 256 Casino Management 3 | | | |
| HMGT 265 Front Office Management 3 | | | |
| HMGT 268 Hospitality Managerial Accounting* | | | |
| *Prerequisite/Corequisite required | | | |
| **Total Credit Hours Required** | **75** | | |

# Hospitality Management

## A.A.S. Hospitality Management Food and Beverage

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| MATH 100 Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement test score |
| PSYC 140 General Psychology | 3 | | |
| SPDR 100 Fundamentals of Speech *or*<br>SPDR 102 Fundamentals of Human Communications *or*<br>SPDR 103 Interpersonal Communications | 3 | | ENGL 30 or appropriate placement test score (SPDR 102) |
| Computer Elective | 1 | | See Courses section of this catalog for individual course prerequisites. |
| Humanities Requirement | 3 | | |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | |
| HMEC 151 Nutrition and Meal Planning | 3 | | |
| HMGT 120 Food Service Sanitation | 1 | | |
| HMGT 121 Perspectives of Hospitality Management | 3 | | |
| HMGT 123 Professional Cooking I* | 3 | | |
| HMGT 126 Food Management* | 4 | | |
| HMGT 128 Supervisory Management | 3 | | |
| HMGT 150 Seminar: Food Service Sales & Marketing | 3 | | |
| HMGT 207 Hospitality Human Resource Management* | 3 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| HMGT 221 Design and Facilities Management* | 3 | | |
| HMGT 228 Advanced Hospitality Management* | 3 | | |
| HMGT 230 Professional Cooking II* | 3 | | |
| HMGT 268 Hospitality Managerial Accounting* | 3 | | |
| HMGT 271 Seminar in Hospitality Management: Purchasing | 3 | | |
| HMGT 273 Hospitality Cost Accounting* | 3 | | |
| HMGT 277 Seminar in Hospitality Mgmt: Menu Design & Planning* | 3 | | |
| HMGT 279 Beverage Control | 3 | | |
| Hospitality Program Elective - must choose from one course JCCC | 3 | | |
| **Total Credit Hours Required** | **66** | | |

**Computer Electives that will transfer from MCC to JCCC:**
CSOF 100, CSOF 101, CSOF 103, CSOF 104, CSOF 106, CSIS 115
**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, GERM 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 134, HIST 140, HIST 150, HUMN 103, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128
**Hospitality Program Electives:**                          *Prerequisite/corequisite required
HMGT 130, HMGT 203, HGMT 223, HGMT 250, HGMT 256, HGMT 275

# Hospitality Management

## A.A.S. Hospitality Management Hotel and Lodging

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20 or 20L or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100<br>SPDR 102<br>SPDR 103 | Fundamentals of Speech *or*<br>Fundamentals of Human Communications *or*<br>Interpersonal Communications | 3 | | ENGL 30 or appropriate placement test score (SPDR 102) |
| PHED 158 | First Aid/CPR | 2 | | |
| Computer Elective | | 1 | | See Courses section of this catalog for individual course prerequisites. |
| Humanities Elective | | 3 | | |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | | |
| HMGT 120 | Food Service Sanitation | 1 | | See JCCC course descriptions in the Courses section of this catalog for individual course pre-requisites. |
| HMGT 121 | Perspectives of Hospitality Management | 3 | | |
| HMGT 123 | Professional Cooking I* | 3 | | |
| HMGT 128 | Supervisory Management | 3 | | |
| HMGT 132 | Seminar: Housekeeping Operation | 3 | | |
| HMGT 203 | Hotel Sales and Marketing* | 3 | | |
| HMGT 207 | Hospitality Human Resource Management* | 3 | | |
| HMGT 228 | Advanced Hospitality Management* | 3 | | |
| HMGT 230 | Professional Cooking II* | 3 | | |
| HMGT 235 | Seminar: Risk Management and Loss Prevention | 3 | | |
| HMGT 265 | Front Office Management | 3 | | |
| HMGT 268 | Hospitality Managerial Accounting* | 3 | | |
| HMGT 273 | Hospitality Cost Accounting* | 3 | | |
| HMGT 275 | Seminar in Hospitality Management: Internship* | 3 | | |
| HMGT 279 | Beverage Control | 3 | | |
| Recommended Hospitality Management Program Electives | | 3 | | |
| **Total Credit Hours Required** | | **64** | | |

**Hospitality Electives at JCCC:**
HMEC 151    Nutrition and Meal Planning
HMGT 126    Food Management*
HMGT 130    Hospitality Law
HMGT 221    Design and Facilities Management*
HMGT 223    Fundamentals of Baking
HMGT 250    Introduction to Catering
HMGT 256    Casino Management
HMGT 271    Seminar in Hospitality Management: Purchasing
HMGT 277    Seminar in Hospitality Management: Menu Planning

*Prerequisite/corequisite required*

**Computer Electives that will transfer from MCC to JCCC:**
CSOF 100, CSOF 101, CSOF 102, CSOF 103, CSOF 104, CSOF 106, CSIS 115
**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, GERM 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 134, HIST 140, HIST 150, HUMN 103, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128

# Hospitality Management

## Dietary Manager Certificate

| | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| COLL 100  First Year Seminar | 1 | | |
| **Specific Program Requirements (must be taken at JCCC)** | **Credits** | **Semester Taken** | **Prerequisites** |
| HMEC 151  Nutrition & Meal Planning | 3 | | |
| HMGT 120  Food Service Sanitation | 1 | | |
| HMGT 123  Professional Cooking I* | 3 | | |
| HMGT 128  Supervisory Management | 3 | | |
| HMGT 207  Hospitality Human Resource Management* | 3 | | |
| DIET 100  Foodservice Management for Dietary Managers | 3 | | |
| DIET 105  Foodservice Internship for Dietary Managers | 1 | | |
| DIET 200  Medical Nutrition Therapy* | 3 | | |
| DIET 205  Medical Nutrition Therapy Seminar* | 1 | | |
| **Specific Program Requirements (must be taken at MCC)** | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101  Composition and Reading I | 3 | | |
| MATH 100  Mathematics for Business or higher | 3 | | |
| **Total Credit Hours Required** | **27** | | |
| * Prerequisite/Corerequisite required | | | |

# Human Services

*Offered at MCC-Longview*

**A.A.S. Human Services**
    Drug Addiction Services ................. 66-68 Credits

**Certificates**
    Drug Addiction Services ...................... 31 Credits
    Mental Health Technician..................... 23 Credits
    Youth Development Worker............ 13-15 Credits
    Youth Work ......................................... 34 Credits

This program offers an Associate in Applied Science degree and certificate options. The program prepares students for career advancement or entry-level jobs that assist families with their social, behavioral, educational, or mental health needs.

## A.A.S. Human Services Drug Addiction Services

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| BIOL 101 | General Biology *or* | 3-5 | | |
| BIOL 132 | Human Nutrition | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | 3 | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| PSYC 140 | General Psychology | 3 | | |
| PSYC 162 | Correctional Psychology | 3 | | PSYC 140 |
| PSYC 148 | Group Processes | 3 | | PSYC 140 |
| SOCI 160 | Sociology | 3 | | |
| ANTH 110 | Cultural Anthropology *or* | 3 | | |
| SOSC 171 | Comparative Ethnic and Cultural Studies | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| CRJU 275 | Alcohol and Drug Addiction *or* | 3 | | |
| HUMS 275 | Alcohol and Drug Addiction | | | |
| CRJU 280 | Addiction Counseling with Special Populations *or* | 3 | | |
| HUMS 280 | Addiction Counseling with Special Populations | | | |
| CRJU 285 | Addiction Client Management *or* | 3 | | |
| HUMS 285 | Addiction Client Management | | | |
| CSIS 110 | Technology and Information Management *or* | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | | | |
| HUMS 100 | Introduction to Human Services | 3 | | |
| HUMS 163 | Therapeutic Activities and Recreation | 3 | | |
| HUMS 168 | Introduction to Practicum | 1 | | |
| HUMS 172 | Aging, Alcoholism and Medications | 1 | | |
| HUMS 175 | Spirituality in Addiction Recovery | 1 | | |
| HUMS 176 | Addiction Management | 1 | | |
| HUMS 177 | Positive Dependency | 1 | | |
| HUMS 178 | Women's Issues in Addiction | 1 | | |
| HUMS 201 | Human Services Practicum I | 3 | | HUMS 100 and 168 |
| HUMS 202 | Human Services Practicum II | 3 | | HUMS 201 |
| HUMS 203 | Colloquia I | 1 | | HUMS 201 corequisite |
| HUMS 204 | Colloquia II | 1 | | HUMS 202 corequisite |
| HUMS 210 | Interviewing and Interpersonal Communications | 3 | | PSYC 162 |
| HUMS 220 | Social Welfare | 3 | | HUMS 100 |
| **Total Credit Hours Required** | | **66-68** | | |

# Human Services

## Drug Addiction Services Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| PSYC 162 | Correctional Psychology | 3 | | PSYC 140 |
| CRJU 275<br>HUMS 275 | Alcohol and Drug Addiction *or*<br>Alcohol and Drug Addiction | 3 | | |
| CRJU 280<br>HUMS 280 | Addiction Counseling with Special Populations *or*<br>Addiction Counseling with Special Populations | 3 | | HUMS 275 and CRJU 275 |
| CRJU 285<br>HUMS 285 | Addiction Client Management *or*<br>Addiction Client Management | 3 | | HUMS 280 or CRJU 280 |
| HUMS 100 | Introduction to Human Services | 3 | | |
| HUMS 168 | Introduction to Practicum | 1 | | HUMS 100 |
| HUMS 172<br>HUMS 175<br>HUMS 176<br>HUMS 177<br>HUMS 178 | Aging, Alcoholism and Medications *or*<br>Spirituality in Addiction Recovery *or*<br>Addiction Management *or*<br>Positive Dependency *or*<br>Women's Issues in Addiction | 1 | | |
| HUMS 201 | Human Services Practicum I | 3 | | HUMS 100 and 168 |
| HUMS 203 | Colloquia I | 1 | | HUMS 201 corequisite |
| **Total Credit Hours Required** | | **31** | | |

## Mental Health Technician Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| PSYC 140 | General Psychology | 3 | | |
| READ 108 | College Success Skills | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| CRJU 162<br>HUMS 210 | Correctional Psychology *or*<br>Interviewing & Interpersonal Communications | 3 | | PSYC 162 (HUMS 210) |
| HUMS 100 | Introduction to Human Servicees | 3 | | |
| HUMS 168 | Introduction to Practicum | 1 | | HUMS 100 |
| HUMS 190 | Community Mental Health | 3 | | |
| HUMS 201 | Human Services Practicum I | 3 | | HUMS 168 and co-enrollment in HUMS 203 |
| HUMS 203 | Human Services Colloquia I | 1 | | HUMS 168 and co-enrollment in HUMS 201 |
| **Total Credit Hours Required** | | **24** | | |

## Youth Development Worker Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| HUMS 100 | Introduction to Human Services | 3 | | |
| HUMS 160 | Principles of Youth Work | 3 | | |
| HUMS 168 | Introduction to Practicum | 1 | | HUMS 100 |
| HUMS 199 | Human Services Seminar | 1-3 | | |
| HUMS 201 | Human Services Practicum I | 3 | | HUMS 100 and 168 |
| HUMS 203 | Colloquia I | 1 | | HUMS 201 corequisite |
| **Total Credit Hours Required** | | **13-15** | | |

# Human Services

## Youth Work Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| POLS 136 | Introduction to American National Politics | 3 | | |
| PSYC 140 | General Psychology | 3 | | |
| PSYC 245 | Adolescent Psychology | 3 | | PSYC 140 |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| CSIS 110 | Technology and Information Management **or** | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | | | |
| HUMS 100 | Introduction to Human Services | 3 | | |
| HUMS 160 | Principles of Youth Work | 3 | | |
| HUMS 168 | Introduction to Practicum | 1 | | HUMS 100 |
| HUMS 191 | Youth Development Seminar | 1 | | |
| HUMS 201 | Human Services Practicum I | 3 | | HUMS 100 and 168 |
| HUMS 203 | Colloquia I | 1 | | HUMS 201 corequisite |
| **Total Credit Hours Required** | | **34** | | |

# Industrial Technologies

*Offered at MCC-Business & Technology*

## A.A.S. Industrial Technology

Construction Management ......................... 64 Credits
Critical Facilities........................................... 71 Credits
Industrial Electrical ..................................... 67 Credits
Industrial Maintenance ............................... 66 Credits
Instrumentation & Controls .................... 67-69 Credits
Military Technology ................................ 64-68 Credits
Millwright.............................................. 65-69 Credits
Multi-craft.................................................... 63 Credits
Photovoltaics .............................................. 65 Credits
Stationary Engineer .................................... 71 Credits

## Industrial Technology Certificates

Industrial Electrical ............................... 35-36 Credits
Industrial Maintenance ......................... 36-39 Credits
Instrumentation & Controls .................... 35-37 Credits
Millwright Certificate ............................. 36-37 Credits
Photovoltaic ................................................ 36 Credits
Programmable Logic Controller............. 39-40 Credits
Stationary Engineer .............................. 36-37 Credits
Sterile Processing and Environmental Services
........................................................... 16 Credits

This program offers degree and certificate options leading to careers in Industrial Technology.

## A.A.S. Indus. Tech. Construction Management

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 100<br>MATH 110 | Mathematics for Business *or*<br>Intermediate Algebra | 3 | | MATH 20/20L or appropriate placement test score (MATH 100)<br>MATH 40/40L or appropriate placement test score (MATH 110) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| *General Education Electives:*<br>ART 108, 150, 151, PHIL 100, PSYC 140, SOCI 160, HIST 120, 121, POLS 135, ENGL 215 | | 6 | | |
| **Total General Education Requirements** | | **20** | | |
| Specific Program Requirements | | | | |
| BSAD 100<br>BSAD 101 | Introduction to Accounting *or*<br>Accounting Principles I | 3 | | |
| BSAD 109<br>BSAD 120 | Principles of Supervision *or*<br>Organizational Behavior | 3 | | |
| BSAD 127<br>BSAD 128<br><br>*Select three of the following four CSMG courses:*<br>CSMG 150<br>CSMG 160<br>CSMG 170<br>CSMG 180 | Management Internship I *and*<br>Management Internship II<br>*or*<br><br>Construction Management Leadership<br>Construction Project Management<br>Communications for the Construction Trades<br>General and Specialty Contractor Dynamics | 6 | | |
| BSAD 219<br>BSAD 204 | Entrepreneurship *or*<br>Business Management | 3 | | |

# Industrial Technologies

*Offered at MCC-Business & Technology*

## A.A.S. Indus. Tech. Construction Management continued

| | | | | |
|---|---|---|---|---|
| BSAD 153<br>CSIS 115<br>CSIS | Accounting Information Systems, PC *or*<br>Intro to Microcomputer Applications *or*<br>Any Programming Language Course | 3 | | BSAD 101 (BSAD 153) |
| BSAD 205 | Marketing | 3 | | |
| BSAD 221 | Business Communications | 3 | | |
| BSAD 254<br>BSAD 255<br>BSAD 270 | Business Law I *or*<br>Business Law II *or*<br>Legal Environment of Business | 3 | | |
| CSMG 110 | Problem Solving/Decision Making | 1 | | |
| CSMG 120 | OSHA and Site Security | 1 | | |
| CSMG 130 | Cost Awareness/Production Control | 1 | | |
| CSMG 140 | Beginning Print Reading | 2 | | |
| CSMG 205 | Intermediate Print Reading | 2 | | CSMG 140 |
| CSMG 210 | Accident Prevention and Loss Control | 1 | | |
| CSMG 220 | Construction Planning and Scheduling | 2 | | |
| CSMG 230 | Productivity Improvement | 2 | | |
| CSMG 250 | Construction Estimating | 2 | | |
| CSMG 260 | Contract Documents | 2 | | |
| CSMG 270 | Advanced Print Reading | 2 | | CSMG 205 |
| **Total Credit Hours Required** | | **64** | | |

# Industrial Technologies

## AAS INTE – Critical Facilities Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215 SPAN 100 | Technical Writing *or* Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120 HIST 121 POLS 135 POLS 136 POLS 137 | United States History to 1865 *or* United States History Since 1865 *or* Introduction to Political Science *or* Introduction to American National Politics *or* Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Choose one of the following Math options | | | | |
| Option 1: MATH 103 MATH 103R MATH 120 MATH 120R MATH 104 MATH 130 **Option 2:** MATH 150 | Technical Mathematics I *or* Technical Mathematics I w/ review *or* College Algebra *or* College Algebra w/ review *and* Technical Mathematics II *or* Trigonometry PreCalculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Required** | | **20** | | |

| **Core Program Requirements** | | | | |
|---|---|---|---|---|
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Satety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110 INTE 112 INTE 113 | Industrial Electrical Principles *or* Industrial Electrical DC Principles **and** Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112) INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Specific Program Requirements** | | | | |
| HVAC 111 | Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 135 | Residental Heating and Air Conditioning I | 4 | | HVAC 109, 111, 120 or taken concurrently |
| HVAC 136 | Residental Heating and Air Conditioning II | 4 | | HVAC 135 |
| HVAC 201 | Stationary Engineering | 3 | | HVAC 111 and 120 |
| HVAC 221 | Commercial Refrigeration | 4 | | HVAC 109, 120, and 136 |
| HVAC 230 | Sheet Metal Layout & Fabrication | 4 | | |
| INTE 140 | Fundamentals of Industrial Maintenance | 3 | | |
| INTE 271 | Programmable Logic Controllers I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrollment |
| INTE 275 | Electric Motor Controls II | 3 | | INTE 175 |
| INTE 276 | Electrical Troubleshooting | 3 | | INTE 275 |
| **Total Credit Hours Required** | | **71** | | |

# Industrial Technologies

*Offered at MCC-Business & Technology*

## A.A.S. INTE Industrial Electrical emphasis

| | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| COLL 100 | First Year Seminar | 1 | | |
| **General Education Requirements** | | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing *or*<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I *or*<br>Technical Mathematics I w/ review *or*<br>College Algebra *or*<br>College Algebra w/ review **and**<br>Technical Mathematics II *or*<br>Trigonometry<br><br>Precalculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br>MATH 110 or satisfactory score on math placement test (MATH 150). |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |
| **Core Program Requirements** | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles *or*<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Industrial Electrical Program Requirements** | | | | |
| INTE 142 | National Electric Code | 3 | | INTE 110 |
| INTE 225 | Industrial Electrical Print Reading | 3 | | INTE 115 |
| INTE 271 | Programmable Logic Controller I | 4 | | INTE 110 and 175 and CSOF 100 or concurrent enrollment |
| INTE 273 | Variable Speed Motors and Drives | 3 | | INTE 175 and 271 |
| INTE 272 | Programmable Logic Controller II | 3 | | INTE 115 and 271 |
| INTE 275 | Electric Motor Controls II | 3 | | INTE 175 |
| INTE 277 | Program Logic Controller Troubleshooting | 3 | | INTE 115 and 271 |
| INTE 276 | Electrical Troubleshooting | 3 | | INTE 275 |
| Electives: CHEM, CSIS, INTE, MATE, PHYS, ETEC | | 6 | | |
| **Total Credit Hours Required** | | **67** | | |

# Industrial Technologies

## AAS INTE – Industrial Maintenance

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing **or**<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 **or**<br>United States History Since 1865 **or**<br>Introduction to Political Science **or**<br>Introduction to American National Politics **or**<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Precalculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br>MATH 110 or satisfactory score on math placement test (MATH 150). |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |
| **Core Program Requirements** | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles **or**<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Specific Program Requirements** | | | | |
| INTE 140 | Fundamentals of Industrial Maintenance | 3 | | |
| CIMM 105 | Intro to Blueprint Reading | 1 | | |
| INTE 142 | National Electric Code | 3 | | INTE 110 |
| INTE 150 | Fundamentals of Hydraulics | 3 | | |
| INTE 151 | Industrial Rigging | 3 | | |
| MATE 130 | Machining for Related Occupations | 5 | | |
| WELD 110 | Welding Industry Fundamentals | 3 | | |
| WELD 120 | Thermal Cutting Processes Lecture | 1 | | WELD 110 or taken concurrently |
| WELD 121 | Thermal Cutting Processes Lab | 1 | | WELD 120 or taken concurrently |
| Choose 1 of the following 3 pairs:<br>WELD 140<br>WELD 141<br>WELD 150<br>WELD 151<br>WELD 160<br>WELD 161 | <br>Shielded Metal Arc Welding I (Stick) Lecture **and**<br>Shielded Metal Arc Welding I (Stick) Lab **or**<br>Gas Metal Arc Welding I (MIG) Lecture **and**<br>Gas Metal Arc Welding I (MIG) Lab **or**<br>Gas Tungsten Arc Welding I (TIG) Lecture **and**<br>Gas Tungsten Arc Welding I (TIG) **Lab** | | | WELD 121 or taken concurrently (WELD 140)<br>WELD 140 or taken concurrently (WELD 141)<br>WELD 121 or taken concurrently (WELD 150)<br>WELD 150 or taken concurrently (WELD 151)<br>WELD 121 or taken concurrently (WELD 160)<br>WELD 160 or taken concurrently (WELD 161) |
| Electives: CHEM, CSIS, INTE, MATE, PHYS, ETEC | | 3 | | |
| **Total Credit Hours Required** | | **66** | | |

# Industrial Technologies

## AAS INTE – Instrumentation & Controls

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing **or**<br>Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 **or**<br>United States History Since 1865 **or**<br>Introduction to Political Science **or**<br>Introduction to American National Politics **or**<br>Introduction to State and Local Politics | 3 | | |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement score |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (except 104, 110 or 110 or GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |
| **Core Program Requirements** | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles **or**<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | |
| INTE 175 | Electric Motor Controls I | 3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| **Specific Program Requirements** | | | | |
| CSIS 110 | Technology and Information Management or | 3 | | |
| CSIS 111 | Microcomputer Hardware Concepts | 3 | | CSIS 110 |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or higher or appropriate score on placement test |
| INTE 225 | Industrial Electrical Print Reading | 3 | | INTE 115 |
| INTE 270 | Instrumentation & Process Control | 3 | | INTE 225 and INTE 272 |
| INTE 271 | Programmable Logic Controllers I | 4 | | INTE 110 and INTE 175 and CSOF 100 or concurrent enrollment |
| INTE 272 | Programmable Logic Controllers II | 3 | | INTE 115 and INTE 271 |
| INTE 277 | Programmable Logic Controller Troubleshooting | 3 | | INTE 115 and INTE 271 |
| INTE 280 | Networking- HMI for the PLC | 4 | | INTE 272 |
| INTE 290 | Programmable Logic Controllers Capstone | 4 | | INTE 277 or concurrent enrollment |
| **Total Credit Hours Required** | | **69** | | |

# Industrial Technologies

## A.A.S. Indus. Tech. Military Technology

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or 90 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | | | MATH 20 or 20L or appropriate placement test (MATH 103R) |
| MATH 103 | Technical Mathematics I *or* | | | |
| MATH 103R | Technical Mathematics I w/ review *or* | | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| MATH 120 | College Algebra *or* | | | |
| MATH 120R | College Algebra w/ review *and* | 5-7 | | |
| MATH 104 | Technical Mathematics II *or* | | | |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score on the math placement test (MATH 150) |
| **Option 2:** | | | | |
| MATH 150 | Precalculus or higher | | | |
| Any Gen Ed course numbered 100 or above | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |
| Specific Program Requirements | | | | |
| Electives (EHSS, ETEC, HVAC, INTE, MATE, WELD, CSIS) | | 15 | | |
| 4 Year Military Technology Training & Job Experience | | 30 | | |
| (Credit by Certification*) | | | | |
| **Total Credit Hours Required** | | **64-68** | | |
| *MCC will award 30 college credits to students who successfully complete a documented military technology training program and the above 33-37 credit hours. The student must submit to the MCC Registrar documentation of successful completion of 4 years military technology training and job experience in the form of a certified page from the member's service record or a certified electronic transcript. The credit will be transcripted upon completion of 15 MCC credits. | | | | |

# Industrial Technologies

## AAS INTE – Millwright

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing **or**<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 **or**<br>United States History Since 1865 **or**<br>Introduction to Political Science **or**<br>Introduction to American National Politics **or**<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |
| **Core Program Requirements** | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles **or**<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | |
| INTE 175 | Electric Motor Controls I | 3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| **Specific Program Requirements** | | | | |
| CIMM 105 | Intro to Blueprint Reading | 1 | | |
| INTE 140 | Fundamentals of Industrial Maintenance | 3 | | |
| INTE 150 | Fundamentals of Hydraulics and Pneumatics | 3 | | |
| INTE 151 | Industrial Rigging | 3 | | |
| INTE 260 | Industrial Pipefitting and Plumbing Fundamentals | 3 | | INTE 140 |
| MATE 130 | Machining for Related Occupations | 5 | | |
| WELD 110 | Welding Industry Fundamentals | 3 | | |
| WELD 120 | Thermal Cutting Processes Lecture and | 1 | | WELD 110 or taken concurrently |
| WELD 121 | Thermal Cutting Processes Lab | 2 | | WELD 120 or taken concurrently |
| Electives | | 4 | | |
| **Total Credit Hours Required** | | **65-69** | | |

# Industrial Technologies

## AAS INTE – Multi-craft Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing **or**<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 **or**<br>United States History Since 1865 **or**<br>Introduction to Political Science **or**<br>Introduction to American National Politics **or**<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry **or**<br><br>Calculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br>MATH 110 or satisfactory score in math placement test (MATH 150). |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |
| **Core Program Requirements** | | | | |
| CSOF 100 | Intro to Personal Computing | 1 | | |
| EHSS 111 | Intro to Health & Safety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles **or**<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSIS 115 or CSOF 100 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Specific Program Requirements** | | | | |
| CIMM 105 | Intro to Blueprint Reading | 1 | | |
| INTE 140 | Fundamentals of Industrial Maintenance | 3 | | |
| HVAC 111 | Principles of Heating, Ventilation, & Refrigeration | 3 | | |
| MATE 130 | Machining for Related Occupations | 5 | | |
| Electives: Choose from the following disciplines:<br>EHSS, HVAC, INTE, MATE, ETEC | | 15 | | |
| **Total Credit Hours Required** | | **63** | | |

# Industrial Technologies

## AAS INTE – Photovoltaic Emphasis

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing *or*<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Choose one of the following Math options | | | | |
| Option 1:<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | <br>Technical Mathematics I *or*<br>Technical Mathematics I w/ review *or*<br>College Algebra *or*<br>College Algebra w/ review *and*<br>Technical Mathematics II *or*<br>Trigonometry<br><br>PreCalculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Required** | | **20** | | |

| **Core Program Requirements** | | | | |
|---|---|---|---|---|
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Satety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles *or*<br>Industrial Electrical DC Principles *and*<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110) concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Specific Program Requirements** | | | | |
| INTE 142 | National Electric Code | 3 | | INTE 110 |
| INTE 185 | Photovoltaic Systems | 3 | | |
| INTE 224 | Energy Management, Efficiency & Conservation | 3 | | |
| INTE 230 | Solar/Photovoltaic Design/Installation | 4 | | INTE 142, INTE 185, and either ETEC 110, HVAC 109 or INTE 110 |
| INTE 242 | Master and Journeyman Prep | 3 | | INTE 142 |
| INTE 270 | Instrumentation and Process Controls | 3 | | INTE 225 and INTE 272 |
| INTE 271 | Programmable Logic Controllers I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrollment |
| INTE Electives | | 6 | | |
| **Total Credit Hours Required** | | **65** | | |

# Industrial Technologies

## AAS INTE – Stationary Engineer

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| ENGL 215<br>SPAN 100 | Technical Writing *or*<br>Beginning Occupational Spanish | 3 | | ENGL 101 (ENGL 215) |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Option 1:<br>MATH 103 Technical Mathematics I **or**<br>MATH 103R Technical Mathematics I w/ review **or**<br>MATH 120 College Algebra **or**<br>MATH 120R College Algebra w/ review **and**<br>MATH 104 Technical Mathematics II **or**<br>MATH 130 Trigonometry<br>Option 2:<br>MATH 150 PreCalculus or higher | | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br>MATH 110 or satisfactory score on math placement test. |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **20** | | |

| **Core Program Requirements** | | | | |
|---|---|---|---|---|
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Satety for General Industry | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 110<br>INTE 112<br>INTE 113 | Industrial Electrical Principles **or**<br>Industrial Electrical DC Principles **and**<br>Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110)<br>concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| **Specific Program Requirements** | | | | |
| HVAC 109 | Electricity for HVAC/R Technicians | 4 | | |
| HVAC 111 | Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 120 | Fundamentals of Refrigeration | 4 | | |
| HVAC 201 | Stationary Engineering | 3 | | HVAC 111 and 120 |
| HVAC 221 | Commercial Refrigeration | 4 | | HVAC 109, 120, and 136 |
| HVAC 230 | Sheet Metal Layout & Fabrication | 4 | | |
| INTE 270 | Instrumentation & Process Controls | 3 | | INTE 225 & 272 |
| INTE 271 | Programmable Logic Controller I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrollment |
| Electives: ETEC, HVAC, INTE, MATE | | 3 | | |
| **Total Credit Hours Required** | | **71** | | |

# Industrial Technologies

## Industrial Electrical Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **Specific Program Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| CSIS 100 Introduction to Personal Computing | 1 | | |
| EHSS 111 Introduction to Health and Safety in General Industry | 1 | | |
| INTE 110 Industrial Electrical Principles | 4 | | MATH 103 or concurrent enrollment |
| INTE 115 Electrical Print Reading | 3 | | INTE 110 |
| INTE 142 National Electric Code | 3 | | INTE 110 |
| INTE 175 Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| INTE 271 Programmable Logic Controller I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrolment |
| INTE 273 Variable Speed Motors and Drives | 3 | | INTE 175 and 271 |
| Any 3 of the following:<br>INTE 272 Programmable Logic Controller II<br>INTE 275 Electric Motor Controls II<br>INTE 277 Program Logic Controller Troubleshooting<br>INTE 225 Industrial Electrical Print Reading | 9 | | INTE 115 and 271<br>INTE 175<br>INTE 115 and 271<br>INTE 115 |
| MATH 103R Technical Math I w/ Review or higher | 3-4 | | MATH 20 or appropriate placement score |
| **Total Credit Hours Required** | **35-36** | | |

## Industrial Maintenance Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **Specific Program Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| CSOF 100 Digital Literacy | 2 | | |
| INTE 107 Industrial Electrical Safety | 1 | | |
| EHSS 111 Introduction to Health and Safety in General Industry | 1 | | |
| INTE 110 Industrial Electrical Principles **or**<br>INTE 112 Industrial Electrical DC Principles **and**<br>INTE 113 Industrial Electrical AC Principles | 4 | | MATH 103 or concurrent enrollment (INTE 110)<br>concurrent enrollment or completion of MATH 103R or higher (INTE 112)<br>INTE 112 or equivalent (INTE 113) |
| INTE 115 Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 Emplyment Strategies for Technical Careers | 2 | | |
| INTE 140 Fundamentals of Industrial Maintenance | 3 | | |
| INTE 150 Fundamentals of Hydraulics and Pneumatics | 3 | | |
| INTE 175 Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| MATH 103R Technical Math I w/ review or higher | 3-4 | | MATH 20 or appropriate placement score |
| MATE 130 Machining for Related Occupations | 5 | | |
| WELD 100 Introduction to Welding/Cutting Processes | 1 | | MATH 20 or appropriate placement score |
| Choose 2 of the following:<br>INTE 121 Internship & Co-Op and<br>INTE 221 Internship & Co-Op II or<br>INTE 142 National Electric Code and<br>CIMM 105 Introduction to Blueprint Reading | 4-6 | | INTE 110 (INTE 142) |
| **Total Credit Hours Required** | **36-39** | | |

# Industrial Technologies

## Instrumentation & Controls Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSIS 123 | Programming Fundamentals | 3 | | MATH 40/40L or appropriate placement score |
| EHSS 111 | Intro to Health & Safety for General Industry | 1 | | |
| ***Choose one of the following Math options:*** **Option 1:** MATH 103R Technical Mathematics I w/ Review or MATH 103 Technical Mathematics or MATH 120 College Algebra or MATH 120R College Algebra w/ Review and MATH 104 Technical Mathematics II or MATH 130 Trigonometry **Option 2:** MATH 150 PreCalclus or higher | | 5-7 | | |
| ETEC 130 Digital Electronics or INTE 280 Networking- HMI for the PLC | | 4 | | Completion of or concurrent enrollment ETEC 110 or INTE 110 |
| INTE 110 | Industrial Electrical Principles | 4 | | |
| INTE 111 | Microcomputer Hardware Repairs | 3 | | |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| INTE 270 | Instrumentation & Process Control | 3 | | HVAC 201 or INTE 271 |
| INTE 271 | Programmable Logic Controllers I | 4 | | INTE 110, INTE 175 & CSOF 100 or concurrent enrollment |
| INTE 291 | Process Controls Capstone | 4 | | INTE 270 and INTE 272 |
| **Total Credit Hours Required** | | **35-37** | | |

## Millwright Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| EHSS 111 | Introduction to Health and Safety in General Industry | 1 | | |
| INTE 110 | Industrial Electrical Principles | 4 | | MATH 103 or concurrent enrollment |
| INTE 140 | Fundamentals of Industrial Maintenance | 3 | | |
| INTE 150 | Fundamentals of Hydraulics | 3 | | |
| INTE 151 | Industrial Rigging | 3 | | |
| INTE 260 | Industrial Pipefitting and Plumbing Fundamentals | 3 | | INTE 140 |
| MATE 115 | Blueprint Reading for the Trades | 3 | | |
| MATH 103R | Technical Mathematics I w/ review or higher | 3-4 | | MATE 20 or appropriate placement score |
| WELD 140 | Shielded Metal Arc Welding I (stick) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 141 | Shielded Metal Arc Welding I (stick) Lab | 2 | | WELD 140 or concurrent enrollment |
| WELD 230 | Layout & Fabrication Lecture | 1 | | WELD 130; one WELD 100 level lecture & lab |
| WELD 231 | Layout and Fabrication Lab | 2 | | WELD 230 |
| WELD 240 | Shielded Metal Arc Welding II (stick) Lecture | 1 | | WELD 141 |
| WELD 241 | Shielded Metal Arc Welding II (stick) Lab | 2 | | WELD 240 |
| **Total Credit Hours Required** | | **36-37** | | |

# Industrial Technologies

## Photovoltaics Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| MATH 103 | Technical Math or higher | 3 | | MATH 40/40L or appropriate score on placement exam |
| INTE 110 | Industrial Electrical Principles | 4 | | Completion of or concurrent enrollment in MATH 103 |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 142 | National Electrical Code | 3 | | INTE 110 |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| INTE 270 | Instrumentation and Process Control | 3 | | INTE 225, INTE 272 |
| EHSS 111<br>EHSS 112 | Introduction to Health and Safety for General Industry **or**<br>Introduction to Health and Safety for Construction | 1 | | |
| INTE 185 | Solar/Photovoltaic Systems | 3 | | |
| INTE 230 | Solar/Photovoltaic Design and Installation | 3 | | INTE 185, INTE 142, and either HVAC 109 or INTE 110, or ETEC 110. |
| GEOL 180 | Energy and the Environment | 5 | | |
| INTE 271 | PLC I | 4 | | INTE 110, INTE 175 and CSOF 100 or concurrent enrollment |
| **Total Credit Hours Required** | | **36** | | |

## INTE Programmable Logic Controller Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111 | Introduction to Health & Safety for General Industry | 1 | | |
| ETEC 130 | Digital Electronics | 4 | | Completion of or concurrent enrollment in ETEC 110 or INTE 110 |
| INTE 110 | Industrial Electrical Principles | 4 | | Completion of or concurrent enrollment in MATH 103 and INTE 115 |
| INTE 115 | Electrical Print Reading | 3 | | INTE 110 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 175 | Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| INTE 225 | Industrial Electrical Print Reading | 3 | | INTE 115 |
| INTE 271 | Programmable Logic Controller I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrollment |
| INTE 272 | Programmable Logic Controller II | 3 | | INTE 115 and 271 |
| INTE 277 | Programmable Logic Controller Troubleshooting | 3 | | INTE 115 and 271 |
| INTE 290 | Programmable Logic Controller Capstone | 4 | | INTE 277 or concurrent enrollment |
| MATH 103R | Technical Mathematics I w/ review | 3-4 | | MATH 20 or appropriate placement scores |
| **Total Credit Hours Required** | | **39-40** | | |

# Industrial Technologies

## Stationary Engineer Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| EHSS 111 Introduction to Health and Safety for General Industry I | 1 | | |
| HVAC 109 Electricity for HVAC/R Technicians | 4 | | |
| HVAC 111 Principles of Heating, Ventilation and Air Conditioning | 3 | | |
| HVAC 120 Fundamentals of Refrigeration | 4 | | |
| HVAC 201 Stationary Engineering | 3 | | HVAC 111 and 120 |
| HVAC 221 Commercial Refrigeration | 4 | | HVAC 109, 120, and 136 |
| INTE 115 Electrical Print Reading | 3 | | INTE 110 |
| INTE 150 Fundamentals of Hydraulics | 3 | | |
| INTE 175 Electric Motor Controls I | 3 | | HVAC 109 or INTE 115 |
| INTE 271 Programmable Logic Controller I | 4 | | INTE 110, 175 and CSOF 100 or concurrent enrollment |
| MATH 103/103R Technical Math w/ review or higher | 4 | | MATH 20 or appropriate placement score |
| **Total Credit Hours Required** | **37** | | |

## Indus. Tech. Sterile Processing and Environmental Services Certificate

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| General Education Requirements | Credits | Semester Taken | Prerequisites |
| CSIS 100 Digital Literacy | 2 | | |
| EHSS 111 Introduction to Health & Safety for General Industry | 1 | | |
| INTE 102 Communication for Industry | 2 | | |
| INTE 103 Environmental Services for the Health Field | 4 | | |
| INTE 108 Central Services Sterilization Processes | 4 | | |
| INTE 124 Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| **Total Credit Hours Required** | **16** | | |

# Industrial Trades Apprenticeship Program

*Offered at MCC-Business & Technology*

These degree completion programs grant college credit by certification for certain federally approved apprenticeship programs. An eligible apprenticeship must contain a minimum 450 clock hours of classroom instruction and a program-specific number of clock hours of on-the-job training. Thirty to forty-two hours of MCC credit leading toward an AAS in Industrial Technology will be awarded upon completion of 15 hours of MCC coursework and receipt of a certificate and/or journeyman card for the appropriate craft.

## A.A.S. Industrial Technology

Industrial Mechanic ............................... 64-66 Credits
Industrial Pipefitter/Sprinkler Fitter ........ 65-67 Credits
Industrial Warehouse Worker ................ 62-63 Credits
Industrial Welder ................................... 65-67 Credits

Lineman Tech/Cable Splicer ................. 63-65 Credits
Maintenance Electrician ........................ 63-65 Credits
Millwright............................................... 64-66 Credits
Sheet Metal .......................................... 64-66 Credits

## AAS INTE – Industrial Mechanic

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 orappropriate placement test score |
| HIST 120 | United States History to 1865 **or** | 3 | | |
| HIST 121 | United States History Since 1865 **or** | | | |
| POLS 135 | Introduction to Political Science **or** | | | |
| POLS 136 | Introduction to American National Politics **or** | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| MATH 103 | Technical Mathematics I **or** | | | |
| MATH 103R | Technical Mathematics I w/ review **or** | | | |
| MATH 120 | College Algebra **or** | | | |
| MATH 120R | College Algebra w/ review **and** | | | |
| MATH 104 | Technical Mathematics II **or** | | | |
| MATH 130 | Trigonometry | | | MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Option 2:** | | | | |
| MATH 150 | Pre Calculus or higher | | | |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |
| Specific Program Requirements | | Credits | Semester Taken | Prerequisites |
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 | Introduction to Personal Computers or | 1-3 | | |
| CSIS 115 | Introduction to Microcomputer Applications or higher | | | |
| EHSS 111 | Intro to Safety & Health for General Industry | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging or | 3-5 | | |
| MATE 130 | Machining for Related Occupations | | | |
| General Electives | | 6 | | |
| Industrial Mechanic Apprenticeship* | | 29 | | |
| **Total Credit Hours Required** | | **64-66** | | |
| *Federally approved Industrial Mechanic apprenticeship program that contains a minimum of 450 clock hours of classroom and instruction and 8000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Industrial Trades Apprenticeship Program

## AAS INTE – Industrial Pipefitter/Sprinkler Fitter

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 or 6-9 see empha-sis area | | |
| **Total General Education Requirements** | | **19** | | |

| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Industrial Pipefitter/Sprinkler Fitter Apprenticeship* | | 29 | | |
| **Total Credit Hours Required** | | **65-67** | | |
| *Federally approved Industrial Pipefitter/Sprinkler Fitter apprenticeship program that contains a minimum of 450 clock hours of classroom and instruction and 8000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Industrial Trades Apprenticeship Program

## A.A.S. Indus. Warehouse Worker

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I *or*<br>Technical Mathematics I w/ review *or*<br>College Algebra *or*<br>College Algebra w/ review *and*<br>Technical Mathematics II *or*<br>Trigonometry<br><br>Precalculus or higher | 6-8 | | MATH 20 or 20L or appropriate score on placement test (MATH 103R)<br>MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br>MATH 110 or satisfactory score on the math placement test (MATH 150) |
| SPAN 100<br>SPAN 101 | Beginning Occupational Spanish *or*<br>Elementary Spanish I | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| EHSS 100 | Introduction to Environmental Health and Safety | 3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| CSIS 110 | Technology and Information Management | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| INTE 151 | Industrial Rigging | 3 | | |
| BSAD 109 | Principles of Supervision | 3 | | |
| BSAD 210 | Logistics Management | 3 | | |
| BSAD 211 | Operations Management | 3 | | |
| BSAD 212 | Transportation and Operations and Management | 3 | | |
| BSAD 213 | Warehouse and Distribution Centers | 3 | | |
| BSAD 219 | Entrepreneurship | 8 | | |
| Warehouse Worker Apprenticeship* | | 8 | | |
| Electives | | 1-3 | | |
| **Total Credit Hours Required** | | **62-65** | | |
| *Federally approved Warehouse Worker apprenticeship program that contains a minimum of 144 clock hours of classroom and instruction and 2000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate. | | | | |

# Industrial Trades Apprenticeship Program

## AAS INTE – Industrial Welder

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 112 | Introduction to Health and Safety for Construction | 1 | | |
| INTE 107 | Industrial Electrical Safety | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151<br>MATE 130 | Industrial Rigging *or*<br>Machining for Related Occupations | 3-5 | | |
| General Electives | | 6 | | |
| Industrial Welders Apprenticeship* | | 29 | | |
| **Total Credit Hours Required** | | **65-67** | | |
| *Federally approved Industrial Welder apprenticeship program that contains a minimum of 450 clock hours of classroom and instruction and 8000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Industrial Trades Apprenticeship Program

## AAS INTE – Lineman Technician/Cable Splicer

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United Stated History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>  Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| MATH 103<br>MATH 103R<br>MATH 104<br>MATH 120<br>MATH 130<br>MATH 150 | Technical Mathematics I *or*<br>Technical Mathematics I w/ review *and*<br>Technical Mathematics II  *or*<br>College Algebra *and*<br>Trigonometry *or*<br>PreCalculus | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| Total General Education Requirements | | 18 | | |
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| LINE 106 | Safety and Accident Prevention | 3 | | |
| INTE 110 | Industrial Electrical Principles | 4 | | MATH 103 |
| INTE 120 | INTE Internship I | 3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOS 100 or CSIS 115 or higher |
| INTE 220 | INTE Internship II | 3 | | |
| Technician/Cable Splicer Apprenticeship* | | 30 | | |
| **Total Credit Hours Required** | | **63-65** | | |
| *Federally approved Lineman Technician/Cable Splicer apprenticeship program that contains a minimum of 450 clock hours of classroom and instruction and 8000 clockhours of on-the-job training.<br>Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Industrial Trades Apprenticeship Program

## Ind. Main. Electrician Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Education Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or or ENGL 90 orappropriate placement test score |
| HIST 120 United States History to 1865 **or** <br> HIST 121 United States History Since 1865 **or** <br> POLS 135 Introduction to Political Science **or** <br> POLS 136 Introduction to American National Politics **or** <br> POLS 137 Introduction to State and Local Politics | | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** <br> MATH 103 Technical Mathematics I **or** <br> MATH 103R Technical Mathematics I w/ review **or** <br> MATH 120 College Algebra **or** <br> MATH 120R College Algebra w/ review **and** <br> MATH 104 Technical Mathematics II **or** <br> MATH 130 Trigonometry <br> **Option 2:** <br> MATH 150 Pre-Calculus or higher | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) <br><br> MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | | | |
|---|---|---|---|---|
| EHSS 100 | Introduction to Environmental, Health & Safety | 3 | | |
| CSOF 100 Introduction to Personal computers or <br> CSIS 115 Introduction to Microcomputer Applications or higher | | 1-3 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 225 | Industrial Electrical Print Reading | 3 | | |
| INTE 272 Programmable Logic Controller II or <br> INTE 277 Programmable Logic Controller Troubleshooting | | 3 | | INTE 115 AND INTE 271 |
| INTE 276 | Electrical Troubleshooting | 3 | | INTE 275 |
| Industrial Maintenance Electrician Apprenticeship* | | 29 | | |
| **Total Credit Hours Required** | | **63-65** | | |
| *Federally approved Industrial Maintenance Electrician apprenticeship program that contains a minimum of 450 clock hours of classroom and instruction and 8000 clockhours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft. | | | | |

# Industrial Trades Apprenticeship Program

## AAS INTE – Millwright

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Calculus or higher | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| **Total General Education Requirements** | | **18** | | |

| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100<br>CSIS 115 | Introduction to Personal Computing or<br>Introduction to Microcomputer Applications or higher | 1-3 | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Millwright Apprenticeship* | | 29 | | |
| **Total Credit Hours Required** | | **64-66** | | |

*Federally approved Millwright apprenticeship program that contains a minimum of 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Industrial Trades Apprenticeship Program

## Sheet Metal Apprenticeship Degree Completion Program

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or ENGL 90 or appropriate placement test score |
| HIST 120 United States History to 1865 **or** <br> HIST 121 United States History Since 1865 **or** <br> POLS 135 Introduction to Political Science **or** <br> POLS 136 Introduction to American National Politics **or** <br> POLS 137 Introduction to State and Local Politics | | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:** <br> MATH 103 Technical Mathematics I **or** <br> MATH 103R Technical Mathematics I w/ review **or** <br> MATH 120 College Algebra **or** <br> MATH 120R College Algebra w/ review **and** <br> MATH 104 Technical Mathematics II **or** <br> MATH 130 Trigonometry <br> **Option 2:** <br> MATH 150 Calculus or higher | | 5-8 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130) <br><br> MATH 110 or satisfactory score in Math placement test (MATH 150) |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, FOREIGN LANGUAGE, GEOG (Except 104,110 or GIS Courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | | 3-5 | | |
| Total General Education Requirements | | 18 | | |

| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
|---|---|---|---|---|
| BSAD 109 | Principles of Supervision | 3 | | |
| CSOF 100 Introduction to Personal Computer or <br> CSIS 115 Introduction to Microcomputer Applications or higher | | 1-3 | | |
| EHSS 111 | Introduction to Health and Safety for General Industry | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| INTE 151 | Industrial Rigging | 3 | | |
| General Electives | | 6 | | |
| Sheet Metal Apprenticeship (Credit by Certification*) | | 29 | | |
| **Total Credit Hours** | | **64-66** | | |

\* Federally approved sheet metal apprenticeship program that contains a minimum 450 clock hours of classroom instruction and 6000 clock hours of on-the-job training. Transcripted upon completion of 15 hours of MCC coursework and documentation of certificate and/or journeyman card for the appropriate craft.

# Interior Design

*Offered at Johnson County Community College*
*Coordinated at MCC*

A.A.S. Interior Design ............................................. 68 Credits
A.A.S. Interior Entrepreneurship............................. 68 Credits
A.A.S. Merchandising .......................................... 68 Credits

    Interior Design Advanced Certificate............... 21 Credits
    Interior Design Retail Sales/Manufacturers
      Representative Certificate ........................... 30 Credits

This program leads to an Associate in Applied Science degree. Associates degrees are offered in interior design, interior merchandising and interior entrepreneurship. Certificates are offered in interior products sales representative and interior design retail sales/manufacturers representative. Students must be accepted into the program by both MCC and JCCC. The student is awarded the degree or certificate from JCCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Interior Design

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ART 150 | History of Art I | 3 | | |
| BSAD 221 | Business Communications | 3 | | |
| ECON 110<br>ECON 210 | Introduction to Economics *or*<br>Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score (ECON 210) |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| MATH 100 | Mathematics for Business | 3 | | MATH 20/20L or appropriate placement test score |
| Elective: | Physical Education or Health (see below) | 1 | | See Courses section of this catalog for individual course prerequisites. |
| **Specific Program Requirements**<br>*Must be taken at Johnson County Community College* | | | | |
| DRAF 164 | Architectural Drafting for Interior Design | 3 | | |
| DRAF 264 | CAD:Interior Design* | 3 | | |
| ITMD 121 | Interior Design | 3 | | |
| ITMD 123 | Space Planning* | 3 | | |
| ITMD 125 | Interior Textiles | 3 | | |
| ITMD 129 | Design Presentation* | 3 | | |
| ITMD 132 | Materials and Resources | 3 | | |
| ITMD 133 | Furniture & Ornamentation/Antiquity to Renaissance | 3 | | |
| ITMD 140 | Window Treatments* | 1 | | |
| ITMD 145 | Upholstered Furniture* | 1 | | |
| ITMD 148 | History of Asian Furniture and Design* | 2 | | |
| ITMD 149 | Casegoods* | 1 | | |
| ITMD 150 | Asian Rugs and Carpets | 1 | | |
| ITMD 180 | Leadership in Design | 1 | | |
| ITMD 213 | Lighting Design & Planning* | 3 | | |
| ITMD 221 | Residential Design* | 3 | | |
| ITMD 231 | Furniture and Ornamentation/Renaissance to 20th Century | 3 | | |
| ITMD 239 | Capstone: Interior Design* | 2 | | |
| ITMD 271 | Budget & Estimating* | 3 | | |
| ITMD 273 | Interiors Seminar: Practices and Procedures* | 2 | | |
| ITMD 282 | Interiors Internship I* | 1 | | |
| ITMD 284 | Interiors Internship II* | 1 | | |
| MKT 134 | Professional Selling | 3 | | |
| **Total Credit Hours Required** | | **68** | | |

**Health, Physical Education & Recreation Electives that will transfer from MCC to JCCC:**
DANC 100, DANC 111, DANC 121, DANC 122, EMS 100, PHED 105, PHED 106, PHED 107, PHED108, PHED 109, PHED 110, PHED 113, PHED 114, PHED 117, PHED 118, PHED 119, PHED 120, PHED 121, PHED 122, PHED 123, PHED 126, PHED 127, PHED 128, PHED 129, PHED 130, PHED 131, PHED 135, PHED 136, PHED 137, PHED 141, PHED 142, PHED 143, PHED 144, PHED 145, PHED 146, PHED 147, PHED 151, PHED 157, PHED 158, PHED 159, PHED 165, PHED 166, PHED 167, PHED 168, PHED 173, PHED 174, PHED 178, PHED 179, PHED 180

# Interior Design

## A.A.S. Interior Entrepreneurship

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ART 150 | History of Art I | 3 | | |
| BSAD 221 | Business Communications | 3 | | Satisfactory ASSET score or completion of ENGL 30 |
| ECON 110<br>ECON 210 | Introduction to Economics *or*<br>Macroeconomics | 3 | | MATH 40/40L or appropriate placement test score (ECON 210) |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| MATH 100 | Mathematics for Business or higher | 3 | | MATH 20/20L or appropriate placement test score |
| Elective: | Physical Education or Health (see below) | 1 | | See Courses section of this catalog for individual course prerequisites. |
| Business/Marketing/Entreprenuership Electives at MCC or JCCC** | | 9 | | |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | | |
| DRAF 164 | Architectural Drafting for Interior Design | 3 | | |
| ITMD 121 | Interior Design | 3 | | |
| ITMD 123 | Space Planning* | 3 | | |
| ITMD 125 | Interior Textiles | 3 | | |
| ITMD 132 | Materials and Resources | 3 | | |
| ITMD 133 | Furniture and Ornamentation/Antiquity to Renaissance | 3 | | |
| ITMD 180 | Leadership in Design | 1 | | |
| ITMD 231 | Furniture and Ornamentation/Renaissance to 20th Century | 3 | | |
| ITMD 237 | Capstone: Merchandising and Entrepreneurship* | 2 | | |
| ITMD 271 | Budgeting & Estimating* | 3 | | |
| ITMD 273 | Seminar: Business Practices and Procedures* | 2 | | |
| ITMD 282 | Interiors Internship I* | 1 | | |
| ITMD 284 | Interiors Internship II* | 1 | | |
| MKT 134 | Professional Selling | 3 | | |
| ITMD | Electives* | 9 | | |
| **Total Credit Hours Required** | | **68** | | |

**\*\*Recommended Business/Entrepreneurship/Marketing Electives at MCC:**
BSAD 101     Accounting Principles I
BSAD 219     Entrepreneurship
BSAD 205     Marketing
**\*Recommended Business/Entrepreneurship/Marketing Electives at JCCC:**
ENTR 131     Financial Management for Small Business
ENTR 142     FastTrack Business Plan
ENTR 160     Legal Issues for Small Business
ENTR 180     Opportunity Analysis
MKT 121     Retail Management
**\*Recommended Interior Electives at JCCC:**
ITMD 127     Elements of Floral Design
ITMD 140     Window Treatments*
ITMD 143     Accessory Fundamentals*
ITMD 145     Upholstered Furniture*
ITMD 147     Lighting Basics*
ITMD 148     History of Asian Furniture and Design
ITMD 149     Casegoods*

ITMD 150     Asian Rugs and Carpets
ITMD 175     Advanced Floral Design*
ITMD 213     Lighting Design and Planning*
ITMD 225     Interior Textiles II*
ITMD 250     20th Century Designers
ITMD 295     Field Study: Design and Merchandising*
ITMD 296     Interior Design: The Orient (travel for credit)*

**Health, Physical Education and Recreation Elective** must be one of the following: DANC 100, 111, 121, 122, EMS 100, HUSC 108, PHED 105, 106, 107, 108, 109, 110, 113, 114, 117, 118, 119, 120, 121, 122, 123, 126, 127, 128, 129, 130, 131, 135, 136, 137, 141, 142, 143, 144, 145, 146, 147, 157, 151, 158, 159, 165, 166, 167, 168, 173, 174, 178, 179

*Prerequisite/corequisite required

# Interior Design

## A.A.S. Interior Merchandising

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| ART 150 | History of Art I | 3 | | |
| BSAD 221 | Business Communications | 3 | | |
| ECON 110 | Introduction to Economics *or* | 3 | | MATH 40/40L or appropriate placement test score (ECON 210) |
| ECON 210 | Macroeconomics | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| MATH 100 | Mathematics for Business | 3 | | MATH 20/20L or appropriate placement test score |
| Elective: | Physical Education or Health | 1 | | See Courses section of this catalog for individual course prerequisites. |
| Business/Marketing Electives at MCC or JCCC** | | 6 | | |
| **Specific Program Requirements**<br>*Must be taken at Johnson County Community College* | | | | |
| DRAF 164 | Architectural Drafting/Residential Interior Design | 3 | | |
| ITMD 123 | Space Planning* | 3 | | |
| FASH 125 | Visual Merchandising | 3 | | |
| FASH 135 | Image Management *or* | 1 | | |
| ITMD 180 | Leadership Design | | | |
| ITMD 121 | Interior Design | 3 | | |
| ITMD 125 | Interior Textiles* | 3 | | |
| ITMD 132 | Materials and Resources | 3 | | |
| ITMD 133 | Furniture and Ornamentation/Antiquity to Renaissance | 3 | | |
| ITMD 231 | Furniture and Ornamentation/Renaissance to 20th Century | 3 | | |
| ITMD 237 | Capstone: Merchandising & Entrepreneurship* | 2 | | |
| IMTD 271 | Budgeting & Estimating* | 3 | | |
| ITMD 273 | Interiors Seminar: Business Practices & Procedures* | 2 | | |
| ITMD 282 | Interiors Internship I* | 1 | | |
| ITMD 284 | Interiors Internship II* | 1 | | |
| MKT 134 | Professional Selling | 3 | | |
| ITMD | Electives* | 9 | | |
| **Total Credit Hours Required** | | **68** | | |

*Prerequisite/corequisite required
**Recommended Interior Electives at JCCC:**
ITMD 127     Elements of Floral Design
ITMD 140     Window Treatments*
ITMD 143     Accessory Fundamentals*
ITMD 145     Upholstered Furniture*
ITMD 147     Lighting Basics*
ITMD 148     History of Asian Furniture and Design
ITMD 149     Casegoods*
ITMD 150     Asian Rugs and Carpets
ITMD 175     Advanced Floral Design*
ITMD 213     Lighting Design and Planning*
ITMD 225     Interior Textiles II*
ITMD 250     20th Century Designers
ITMD 295     Field Study: Design and Merchandising*
ITMD 296     Interior Design: The Orient (travel for credit)
**Recommended Business/Marketing Electives at JCCC:**
BUS 145     Small Business Management
MKT 121     Retail Management
MKT 221     Sales Management
**Recommended Business/Marketing Electives at MCC:**
BSAD 205     Marketing
**Health, Physical Education & Recreation Electives that will transfer from MCC to JCCC:**
DANC 100, DANC 111, DANC 121, DANC 122, EMS 100, PHED 105, PHED 106, PHED 107, PHED108, PHED 109, PHED 110, PHED 113, PHED 114, PHED 117, PHED 118, PHED 119, PHED 120, PHED 121, PHED 122, PHED 123, PHED 126, PHED 127, PHED 128, PHED 129, PHED 130, PHED 131, PHED 135, PHED 136, PHED 137, PHED 141, PHED 142, PHED 143, PHED 144, PHED 145, PHED 146, PHED 147, PHED 151, PHED 157, PHED 158, PHED 159, PHED 165, PHED 166, PHED 167, PHED 168, PHED 173, PHED 174, PHED 178, PHED 179, PHED 180

# Interior Design

## Interior Design Advanced Certificate

This certificate is designed for students who wish to be certified or registered interior designers.
Students must have completed the Interior Design AAS degree.

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| ART 103        Design Foundations  *or* | | | |
| ART 151        Art History II   *or* | 3 | | |
| Art/Art History Electives | | | |
| Specific Program Requirement<br>*Must be taken at Johnson County Community College* | | | |
| DRAF 230       Intermediate CAD: AutoCAD* *or* | | | |
| ART 129        Design Color | 3 | | |
| ITMD 225       Interior Textiles II* | 3 | | |
| ITMD 223       Commercial Design* | 3 | | |
| ITMD 219       Issues in Interior Design* | 3 | | |
| ITMD 234       Kitchen and Bath: Planning and Design* | 3 | | |
| Interior Design Electives | 3 | | |
| **Interior Design Electives**<br>*Must be taken at Johnson County Community College*<br>*Choose 3 credit hours from the following list* | | | |
| ITMD 127       Elements of Floral Design | 1 | | |
| ITMD 143       Accessory Fundamentals* | 1 | | |
| ITMD 175       Advanced Floral Design* | 1 | | |
| ITMD 250       20th Century Designers | 1 | | |
| ITMD 295       Field Study: Design and Merchandising* | 3 | | |
| ITMD 296       Interior Design: The Orient | 3 | | |
| **Total Credit Hours Required** | **21** | | |

*Prerequisites/corequisites required

## Interior Design Retail Sales/Manufacturers Representative Certificate

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| MATH 100      Mathematics for Business or higher | 3 | | MATH 20/20L or appropriate placement test score |
| Specific Program Requirement<br>*Must be taken at Johnson County Community College* | | | |
| FASH 125       Visual Merchandising | 3 | | |
| FASH 135       Image Management | 1 | | |
| ITMD 121       Interior Design I | 3 | | |
| ITMD 125       Interior Textiles | 3 | | |
| ITMD 132       Materials and Resources | 3 | | |
| ITMD 271       Budgeting and Estimating* | 3 | | |
| ITMD 282       Interiors Internship I | 1 | | |
| ITMD 284       Interiors Internship II | 1 | | |
| MKT 121        Retail Management | 3 | | |
| MKT 134        Professional Selling | 3 | | |
| ITMD:          Electives* | 3 | | |
| **Total Credit Hours Required** | **30** | | |

**Prerequisite/corequisite**
**Recommended Electives:**
ITMD 127:       Elements of Floral Design
ITMD 140:       Window Treatments
ITMD 143:       Accessory Fundamentals*
ITMD 145:       Upholstered Furniture*
ITMD 147:       Lighting Design and Planning*
ITMD 149:       Casegoods*
ITMD 213:       Lighting Design and Planning*
ITMD 225:       Interior Textiles II*
ITMD 231:       Furniture and Ornamentation: Renaissance–20th Century
ITMD 273:       Seminar: Practices and Procedures*

# Interior Design

## Interior Design & Merchandising Entrepreneurship Certificate

| Specific Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| BSAD 219    Entrepreneurship | 3 | | |
| MATH 100    Mathematics for Business | 3 | | MATH 20/20L or appropriate placement test score |
| **Specific Program Requirement**<br>*Must be taken at Johnson County Community College* | | | |
| DRAF 164    Architectural Drafting/Residential Interior Design | 3 | | |
| ITMD 121    Interior Design | 3 | | |
| ITMD 125    Interior Textiles | 3 | | |
| ITMD 132    Materials and Resources | 3 | | |
| ENTR 180    Opportunity Analysis | 2 | | |
| ITMD 123    Space Planning* | 3 | | |
| ITMD 271    Budgeting and Estimating* | 3 | | |
| ITMD 273    Interiors Seminar: Practices and Procedures* | 2 | | |
| ITMD 282    Interiors Internship I* | 1 | | |
| ENTR 160    Legal Issues for Small Business | 2 | | |
| ENTR 142    Fast Trac Business Plan | 3 | | |
| **Choose 3 of the 5 one-credit hour courses**<br>*Must be taken at Johnson County Community College* | | | |
| ITMD 127    Elements of Floral Design | 1 | | |
| ITMD 175    Advanced Floral Design* | 1 | | |
| ITMD 140    Window Treatments* | 1 | | |
| ITMD 145    Upholstered Furniture* | 1 | | |
| ITMD 147    Lighting Basics* | 1 | | |
| **Total Credit Hours Required** | **30** | | |
| **Additional Recommended ENTR Coursework:**<br>Students may also want to select additional ENTR courses to complement their certificate study- not included in Program Requirements.<br>*Must be taken at Johnson County Community College* | | | |
| ENTR 195    Franchising* | 3 | | |
| ENTR 220    Entrepreneurial Marketing* | 2 | | |
| ENTR 131    Financial Management for Small Business* | 2 | | |

# Land Surveying & Geomatics

*Offered at MCC-Longview*

A.A.S. Land Surveying & Geomatics..... 65-66 Credits
Land Surveying Certificate ............. 18-19 Credits

This program leads to an Associate in Applied Science degree or certificate prepares an individual to take the state-licensing exam to become a Land Surveyor in training in the state of Missouri.

## A.A.S. Land Surveying & Geomatics

| COLL 100<br>ENGR 101 | First Year Seminar or<br>Introduction to the Profession (preferred) | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102<br>ENGL 215 | Composition and Reading II *or*<br>Technical Writing | 3 | | ENGL 101 |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865<br>United States History Since 1865<br>Introduction to Political Science<br>Introduction to American National Politics<br>Introduction to State and Local Politics | 3 | | ECON 210 (MATH 40/40L or appropriate placement score) |
| MATH 120<br>MATH 130<br><br>MATH 150 | College Algebra *and*<br>Trigonometry<br>*or*<br>Precalculus | 5-6 | | MATH 110 or appropriate placement test score (MATH 120, 130 and 150) |
| MATH 115 | Statistics | 3 | | MATH 110 or appropriate placement test score |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| CSIS 110<br>ENGR 113 | Technology and Information Management *or*<br>Engineering Design Microcomputer Applications | 3 | | |
| ETEC 152 | Engineering Graphics and CADD I | 5 | | MATH 40/40L |
| ETEC 265 | Intro to Civil Design | 3 | | ETEC 152 |
| GEOG 120 | Introduction to Geographic Information Systems | 3 | | |
| GEOG 220 | GIS Database and Design | 3 | | GEOG 120 |
| GEOG 224 | Applications in Geographic Info Systems | 3 | | GEOG 120, GEOG 220 |
| GEOG 228 | Administrative Issues in GIS | 3 | | GEOG 120 |
| SRVY 135 | Elementary Surveying | 3 | | MATH 130 or MATH 150 |
| SRVY 235 | Advanced Surveying | 3 | | SRVY 135 |
| SRVY 236 | Boundary Control and Legal Principles | 3 | | SRVY 135 |
| SRVY 237 | Evidence and Procedures for Boundary Location | 3 | | SRVY 135 |
| SRVY 244 | Fundamentals of GPS Surveying | 3 | | SRVY 135 |
| Two courses from the following list:<br>BSAD 101<br>BSAD 204<br>BSAD 219<br>CSIS 123<br>CSIS 143 | <br>Accounting and Principles I<br>Business Management<br>Entrepreneurship<br>Programming Fundamentals<br>Database Design and Managment | 6 | | MATH 40/43 or appropriate score or placement test (CSIS 123)<br><br>CSIS 110 or 115 (CSIS 143) |
| **Total Credit Hours Required** | | **65-66** | | |

## Land Surveying Certificate

| ENGR 101<br>COLL 100 | Intro to the Profession (preferred) *or*<br>First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| MATH 120<br>MATH 130<br><br>MATH 150 | College Algebra *and*<br>Trigonometry<br>*or*<br>Precalculus | 5-6 | | MATH 110 or appropriate placement test score (MATH 120, 130 and 150) |
| SRVY 135 | Elementary Surveying | 3 | | MATH 130 or MATH 150 |
| SRVY 235 | Advanced Surveying | 3 | | SRVY 135 |
| SRVY 236 | Boundary Control and Legal Principles | 3 | | SRVY 135 |
| SRVY 237 | Evidence and Procedures for Boundary Location | 3 | | SRVY 135 |
| **Total Credit Hours Required** | | **18-19** | | |
| This certificate prepares an individual to take the state-licensing exam to become a Land Surveyor in Training with the state of Missouri. | | | | |

# Lineman

A.A.S. Lineman...................................... 65-67 Credits
Lineman Certificate................................. 51-53 Credits

Electric utility line technicians install and repair poles, conductors, cables and equipment used in electrical power and distribution systems. The certificate program is intended to prepare individuals for employment at any electric utility offering an apprenticeship in the United States. Applicants with formal training typically have higher starting salaries and greater opportunity for advancement within the industry. Applicants must apply to the program.

## A.A.S. Lineman

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Option 1:**<br>MATH 103<br>MATH 103R<br>MATH 120<br>MATH 120R<br>MATH 104<br>MATH 130<br>**Option 2:**<br>MATH 150 | Technical Mathematics I **or**<br>Technical Mathematics I w/ review **or**<br>College Algebra **or**<br>College Algebra w/ review **and**<br>Technical Mathematics II **or**<br>Trigonometry<br><br>Pre-Calculus or higher | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Specific Program Requirements** | | | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| LINE 104 | Pole Climbing Skills | 5 | | |
| LINE 105 | Electrical Distribution Systems | 3 | | INTE 110 |
| LINE 106 | Safety and Accident Prevention | 3 | | |
| INTE 110 | Industrial Electrical Principles | 4 | | Completion of or current enrollment in MATH 103 |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| GEOL 180 | Energy and the Environment | 5 | | |
| LINE 210 | Pole Framing and Construction Specifications | 3 | | LINE 104 & 106 |
| LINE 215 | Setting and Replacing Poles | 3 | | LINE 104 & 106 |
| LINE 237 | Transformer Theory and Installation | 3 | | LINE 106, INTE 110 and LINE 210 |
| LINE 241 | Conductor Installation and Metering | 3 | | LINE 237 |
| LINE 250 | Fusing, Substations, & Voltage Regulation | 3 | | LINE 241 |
| LINE 251 | Installation and Troubleshooting Underground Distribution Systems | 3 | | LINE 250 |
| LINE 252 | Advanced Pole Climbing | 3 | | LINE 104 and 106 |
| **Total Credit Hours Required** | | **65-67** | | |

*minimum requirements

# Lineman

## Lineman Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | Credits | Semester Taken | Prerequisites |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate |
| LINE 104 | Pole Climbing Skills | 5 | | |
| LINE 105 | Electrical Distribution Systems | 3 | | INTE 110 |
| LINE 106 | Safety and Accident Prevention | 3 | | |
| INTE 110 | Industrial Electrical Principles | 4 | | Completion of or concurrent enrollment in MATH 103/103R or higher |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 or higher |
| LINE 210 | Pole Framing and Construction Specifications | 3 | | LINE 104 and 106 |
| LINE 215 | Setting and Replacing Poles | 3 | | LINE 104 and 106 |
| LINE 237 | Transformer Theory and Installation | 3 | | LINE 106, INTE 110 and LINE 210 |
| LINE 241 | Conductor Installation and Metering | 3 | | LINE 237 |
| LINE 250 | Fusing, Substations, & Voltage Regulation | 3 | | LINE 241 |
| LINE 251 Installation and Troubleshooting Underground Distribution Systems | | 3 | | LINE 250 |
| LINE 252 | Advanced Pole Climbing | 3 | | LINE 104 and 106 |
| **Option 1:**<br>MATH 103 Technical Mathematics I **or**<br>MATH 103R Technical Mathematics I w/ review **or**<br>MATH 120 College Algebra **or**<br>MATH 120R College Algebra w/ review **and**<br>MATH 104 Technical Mathematics II **or**<br>MATH 130 Trigonometry<br>**Option 2:**<br>MATH 150 Pre-Calculus or higher | | 5-7 | | MATH 40/40L or appropriate placement test score (MATH 103), MATH 103 (MATH 104), MATH 110 or appropriate placement test score (MATH 120), MATH 120 or appropriate placement test score (MATH 130)<br><br>MATH 110 or satisfactory score in Math placement test (MATH 150) |
| **Total Credit Hours Required** | | **51-53** | | |

# LPN-ADN Bridge Program

*Offered at MCC-Penn Valley*

LPN-ADN Bridge Program .................... 75-81 Credits

The LPN-ADN Bridge program allows licensed practical nurses to complete the requirements for an Associate in Applied Science in Nursing degree. Licensed Practical Nurses receive credit for knowledge and skills mastered in their practical nursing programs and work related experience following demonstration of competency through the LPN entrance exam (ATI exam).

Admission to the program

Every student in the nursing program should be aware that the Missouri State Board of Nursing may refuse to issue a license to any person who has been found guilty of violating federal or state laws and for any of the 15 causes listed in Section 335.066 of the Missouri Revised Statues 1986. Copies of this law are available from the Missouri State Board of Nursing. For more information, go to www.mcckc.edu/bridge

Accreditation
- The nursing program is fully approved by the Missouri State Board of Nursing and is accredited by The National League of Nursing Accrediting Commission.
- The Missouri State Board of Nursing can be contacted at 3605 Missouri Boulevard, P.O. Box 656, Jefferson City, MO 65102-0656; telephone (573) 751-0681
- The National League for Nursing Accrediting Commission can be contacted at 3343 Peachtree Road, N.E. #500. Atlanta, GA. 30326; telephone (404) 975-5000; fax (404) 975-5020.

## LPN-ADN Bridge Program

This program allows licensed practical nurses to complete the requirements for an Associate in Applied Science in Nursing degree.

| | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| COLL 100 | First Year Seminar | 1 | | |
| **Prerequisite Courses:** | | | | |
| BIOL 100<br>CHEM 105 | Introduction to Cell Biology *or*<br>Introductory Chemistry for Health Sciences | 3-5 | | MATH 20/20L or appropriate placement test score |
| BIOL 109<br><br>BIOL 110<br>BIOL 210 | Antomy and Physiology<br>*or*<br>Human Anatomy *and*<br>Human Physiology | 6-10 | | BIOL 100 or CHEM 105 (BIOL 109)<br>BIOL 100 or CHEM 105 and BIOL 110 (BIOL 110 & 210) |
| PSYC 140 | General Psychology | 3 | | |
| BIOL 208 | Microbiology | 5 | | BIOL 100 or CHEM 105 or higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109 or 110 |
| PSYC 243 | Human Lifespan Development | 4 | | PSYC 140 |
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| *The student must complete one of the following courses:*<br>HIST 120    United States History to 1865 *or*<br>HIST 121    United States History since 1865 *or*<br>POLS 135    Introduction to Political Science *or*<br>POLS 136    Introduction to American National    Politics *or*<br>POLS 137    Introduction to State and Local Politics<br>*Students transferring one of these courses from out of state will be required to complete POLS 153 The Missouri Constitution.* | | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| Following successful completion of HESI LPN entrance exam credit will be given for RNUR 126, 131, 134, 138 and 141 | | 19 | | |
| RNUR 115 | Professional Transition | 4 | | Completion of all prerequisites; admission to Nursing program |
| RNUR 230 | Leadership/Management/Trends | 2 | | ENGL 101, SOCI 160, RNUR 234, 238, SPDR 100 or 102, HIST 120/121, or POLS 135/136/137. Constitutional requirement may be taken concurrently. |
| RNUR 234 | Child Centered Nursing | 4 | | BIOL 208, RNUR 134, 138, 141, or taken concurrently: ENGL 101, SOCI 160. |
| RNUR 238 | Adult Nursing II | 5 | | BIOL 208, RNUR 134, 138, 141 OR taken concurrently: ENGL 101, SOCI 160. |
| RNUR 244 | Adult Nursing III | 7 | | ENGL 101, SOCI 160, RNUR 234, RNUR 238, or taken concurrently: SPDR 100 & HIST 120/121 or POLS 135/136/137 or SOSC 151 |
| **Total Credit Hours Required** | | **75-81** | | |

# Major Appliance Technology

*Offered at Kansas City Kansas Community College*

## Major Appliance Technology Certificate

| Essential Courses<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| EHSS 111 Introduction to Health and Safety for General Industry * | 1 | | EQV: MAPRO 100 |
| INTE 124 Employment Strategies for Technical Careers | 2 | | EQV: MAPRO 160 |
| *This course must be taken first* | | | |
| Essential Courses<br>*Must be taken at Kansas City Kansas Community College* | | | |
| MAPRO 103 Tools of the Trade | 1 | | |
| MAPRO 108 Basic Electricity | 3 | | |
| MAPRO 112 Fundamentals of Refrigeration | 2 | | |
| MAPRO 115 Parts Research and Ordering Systems | 1 | | |
| MAPRO 120 Principles of Combustion | 2 | | |
| MAPRO 135 Oxy/Acetylene Safety/Usage | 2 | | |
| MAPRO 140 Brazing/Swaging/Silver and Soft Soldering | 3 | | |
| MAPRO 205 Gas and Electric Wall Ovens- Domestic/Professional | 3 | | |
| MAPRO 210 Gas and Electric Ranges/Cook Tops Domestic/Professional/Commercial | 3 | | |
| MAPRO 220 Dishwashers – Domestic/Professional/Commercial | 3 | | |
| MAPRO 222 Advanced Refrigeration | 2 | | |
| MAPRO 230 Refrigerators/Freezers Domestic/Commercial | 3 | | |
| MAPRO 233 Ice Makers-Domestic/Clear Ice/Commercial Ice Makers | 3 | | |
| MAPRO 235 Commercial Walk-in/Reach-in Freezers/Coolers | 3 | | |
| MAPRO 243 Microwave Ovens-Domestic/Commercial | 3 | | |
| MAPRO 245 Top and Front Load Clothes Washers–Domestic/Commercial | 3 | | |
| MAPRO 247 Gas and Electric Clothes Dryers/Stack Laundry-Domestic/Commercial | 3 | | |
| Electives<br>*Choose 6 credit hours to complete program* | | | |
| MAPRO 215 Ventilation Hoods/Make-Up Air Blowers – Domestic/Commercial | 3 | | |
| MAPRO 240 Steam Ovens/Proffers/Deep Fryers –Domestic/Commercial | 3 | | |
| MAPRO 284 Special Projects | 3 | | |
| MAPRO 290 Internship | 3 | | |
| MAPRO 291 Internship II | 3 | | |
| **Total Credit Hours Required** | **52** | | |

# Mortuary Science

*Offered at Kansas City Kansas Community College*
*Coordinated at MCC*

A.A.S. Mortuary Science ....................... 78-79 Credits

This program leads to an Associate in Applied Science degree that seeks to prepare students to function as practitioners in the field of funeral service. Students must be accepted into the program by both MCC and KCKCC.

The student is awarded the degree from KCKCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Mortuary Science

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| BIOL 101 General Biology | 5 | | |
| BIOL 110 Human Anatomy | 5 | | |
| BIOL 208 Microbiology | 5 | | BIOL 100 or CHEM 105 or higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109, or 110. |
| BSAD 101 Accounting Principles I | 3 | | |
| CSIS 115 Intro. to Microcomputer Applications | 3 | | |
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 Composition and Reading II | 3 | | ENGL 101 |
| MATH 100 Mathematics for Business | 3 | | |
| BSAD 204 Business Management | 3 | | |
| PSYC 140 General Psychology | 3 | | |
| PSYC 230 Death and Dying | 3 | | |
| SPDR 100 Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| PHIL 100 Intro to Philosophy *or*<br>PHIL 203 Ethics | 3 | | |
| Specific Program Requirements<br>*Must be taken at Kansas City Kansas Community College* | | | |
| HUDV 100/101 Strategies for Academic Excellence/Lifelong Learning | 1-2 | | |
| MTSC 101 Orientation to Funeral Service | 2 | | |
| MTSC 105 Mortuary Law | 3 | | |
| MTSC 108 Mortuary Chemistry | 3 | | |
| MTSC 110 Restorative Art | 4 | | |
| MTSC 201 Pathology | 3 | | |
| MTSC 205 Embalming Theory | 4 | | |
| MTSC 210 Mortuary Management | 3 | | |
| MTSC 212 Funeral Service Merchandising | 3 | | |
| MTSC 225 Funeral Service Counseling | 3 | | |
| MTSC 240 Mortuary Science Practicum I | 3 | | |
| MTSC 241 Mortuary Science Practicum II | 3 | | |
| **Total Credit Hours Required** | **78-79** | | |

* A minimum cumulative grade point average of 2.5. This includes all undergraduate college courses taken.
* Human Anatomy and Accounting must have been taken within the last 4 years to transfer to KCKCC.
* All General Education requirements (37 hours) must be completed with a "C" grade or better prior to acceptance into the program.

# Music Technology

*Offered at Kansas City Kansas Community College*
*Coordinated at MCC*

A.A.S. Music Technology ....................... 61-64 Credits

This program leads to a program of Associate in General Studies with an emphasis in Music Technology. The degree is for students wishing to pursue employment in a technology-related aspect of the music business.

Students must be accepted into the program by both MCC and KCKCC. The student is awarded the degree from KCKCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Music Technology

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | Credits | Semester Taken | Prerequisites |
|---|---|---|---|
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 Composition and Reading II or<br>ENGL 215 Technical Writing | 3 | | |
| PSYC 140 General Psychology *or*<br>SOCI 160 Sociology | 3 | | |
| SPDR 100 Fundamentals of Speech or<br>SPDR 103 Interpersonal Communication | 3 | | ENGL 30 or appropriate placement test score |
| MATH 120 College Algebra or higher | 3 | | MATH 110 or appropriate placement test score |
| MUSI 108 Music Appreciation | 3 | | |
| Specific Program Requirements<br>*Can be taken at KCKCC or MCC* | | | |
| Humanities Core | 3 | | |
| MUSC 111 Music Theory I (MUSI 110 at MCC) | 4 | | |
| MUSC 112 Music Theory II (MUSI 111 at MCC) | 4 | | |
| MUSC 213 Music Theory III (MUSI 210 at MCC) | 4 | | |
| MUSC 214 Music Theory IV (MUSI 211 at MCC) | 4 | | |
| Performance Groups (4 semesters) | 4 | | |
| Piano Class/Applied Piano (4 semesters) *or*<br>Voice Class/Applied Voice (4 semsters) *or*<br>Other Applied Lessons (4 semesters) | 4 | | |
| NASC 130 Introductory Physics at KCKCC *or*<br>PHYS 101 Introductory Physics at MCC | 3-5 | | |
| HUDV 100/101 Strategies for Academic Excellence/Lifelong Learning* | 1-2 | | |
| Music Tecchnology Requirements<br>*Must be taken at KCKCC* | | | |
| AUDIO 110 Music Technology I | 3 | | |
| AUDIO 210 Music Technology II | 3 | | |
| AUDIO 230 Multimedia Production | 3 | | |
| AUDIO 240 Sound Editing and Synthesis | 3 | | |
| AUDIO 250 Audio and Recording Techniques | 3 | | See KCKCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| **Total Credit Hours Required** | **61-64** | | |
| * MUST be taken at KCKCC | | | |

# Nursing

Do you like helping other people and working in a fast-paced, challenging environment? There is growing demand for trained nursing professionals and Metropolitan Community College has the programs you need to get started on your pathway to a nursing career. There are several ways to enter this path at MCC: Certified Nursing Assistant (CNA), Licensed Practical Nurse (LPN), and Registered Nurse (RN). Students who want to continue their education can go on to a Bachelor's of Science in Nursing (BSN) and beyond. You can start at any level, or start at CNA and move up while you work.

### Certified Nursing Assistant (CNA)

**Education Requirements:** The MCC program is 175 hours, which includes 100 hours of clinical training.
**What Does a CNA Do?** Certified Nursing Assistants assist the healthcare team in direct patient care duties such as monitoring vital signs, obtaining heights and weights, and monitoring intake and output.  You may also choose to continue your education by becoming a Certified Medical Technician (CMT), or by entering one of the other nursing or allied health programs.
**How Do I Get Started?** You must be at least 18 years of age, with a valid social security number, and a government issued, valid photo ID. For further information see http://mcckc.edu/classes/continuinged/healthcare/cna_cmt.asp

### Licensed Practical Nurse (LPN)

**Education Requirements:** Twelve months of training in such areas as anatomy, physiology, pharmacology and direct patient care. LPNs must pass a national board exam and maintain a professional license.
**What Does an LPN Do?** Licensed practical nurses are allowed to perform simple medical procedures under the direct supervision of either a doctor or a registered nurse. Common tasks include administering medications, (LPNs can do IV medications if IV certified); dressing wounds; measuring blood pressure, heart rate and temperature; collecting samples; and maintaining patient records. An LPN may also choose to continue on and become a Registered Nurse through MCC's LPN to ADN Bridge Program.
**How Do I Get Started?** For further information please see the Practical Nursing page of this catalog.

### Registered Nurse (RN)

**Education Requirements:** There are several educational routes that can be taken in pursuit of an RN qualification. The most common is a 2-year program that culminates with earning an Associate's Degree in Nursing (ADN). Other options include a hospital diploma program that involves a 3-year course of study, or earning a 4-year BSN degree (see below). If you are already an LPN, please see the LPN-ADN Bridge Program page of this catalog for more information.
**What Does an RN Do?** A registered nurse supervises the work of an LPN and is responsible for the overall safety and care of patients. RN's also have a wide array of nursing career options available and may work for insurance companies, attorneys, schools, surgical centers and even as independent medical consultants.
**How Do I Get Started?** For further information please see the Professional Nursing page of this catalog.

### Bachelor's in Nursing (BSN) and Master's in Nursing (MSN)

**Typical Education Requirements:** After successful completion of an ADN degree, the RN may decide to earn a BSN or MSN.  The BSN offers the professional registered nurse upward mobility in the field of nursing to management positions and more advanced degrees.  One to three additional years of study may be required depending on if a student goes part-time or full-time. The MSN would be of most interest to students interested in nursing education.
**What Does a BSN Do?** The role of the BSN nurse is the same as the ADN nurse.
**How Do I Get Started?** Locate a school offering a BSN program.
For further information see http://www.allnursingschools.com/nursing-careers/article/nursing-career-path

# Occupational Education

*Offered at all Campuses*

A.A.S. Occupational Education ............. 65-67 Credits

This program, which prepares students to become vocational educators, leads to an Associate in Applied Science degree. The program is a collaborative effort between 12 community colleges and four 4-year institutions.

## A.A.S. Occupational Education

| COLL 100 First Year Seminar | 1 | | |
|---|---|---|---|
| **General Education Requirements** | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 101 General Biology *or*<br>CHEM 107 Preparatory General Chemistry *or*<br>PHYS 101 Introductory Physics | 5 | | MATH 104 (PHYS 112)<br>MATH 110 (CHEM 107) |
| ENGL 101 Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 United States History to 1865 *and*<br>HIST 121 United States History Since 1865<br>*or*<br>*Two of the following:*<br>POLS 135 Introduction to Political Science<br>POLS 136 Introduction to American National Politics<br>POLS 137 Introduction to State and Local Politics | 6 | | |
| MATH 119 College Mathematics *or*<br>MATH 120 College Algebra | 3 | | MATH 110 (MATH 119)<br>MATH 110 (MATH 120) |
| SPDR 100 Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| Any course numbered 100 or higher from the following disciplines: ART, ANTH, ECON, ENGL, Foreign Language, GEOG (except 104 or 110 and GIS courses), HIST, HUMN, MSCM, MUSI, PHIL, POLS, PSYC, SIGN, SOSC, SOCI, SPDR | 3-5 | | |
| **Specific Program Requirements** | | | |
| **Technical Education:** | | | |
| Must focus on a specific occupational area (Any combination of formal college coursework, occupational certification or CBEX) | 24 | | |
| **Professional Education:*** | | | |
| New Teacher Institute | 3 | | |
| Development and Assessments of Vocational/Technical Curriculum | 3 | | |
| Principles of Teaching Technology and Industrial Education | 2 | | |
| *Three of the following:*<br>Occupational Analysis<br>Coordination of Cooperative Education<br>Vocational Guidance<br>Vocational Education for Handicapped Students<br>Philosophy of Vocational Education<br>Educational Psychology | 9 | | |
| **Total Credit Hours Required** | **65-67** | | |
| *Must be taken at one of the four-year teacher education institutions. | | | |

# Occupational Therapy Assistant

*Offered at MCC-Penn Valley*

A.A.S. Occupational Therapy Assistant.........74 Credits

Certified occupational therapy assistants work under the supervision of a registered occupational therapist to provide care to individuals with varying physical and/or emotional challenges to obtain their maximum level of independence with self-care, and daily living and job skills. The occupational therapy assistant program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. ACOTE's telephone number is (301) 652-AOTA.

For more information, go to
**www.mcckc.edu/ occupationaltherapy**

## A.A.S. Occupational Therapy Assistant

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| BIOL 100 | Intro to Cell Biology | 3 | | |
| BIOL 109 | Anatomy and Physiology | 6 | | BIOL 100 or CHEM 105 |
| BIOL 150 | Medical Terminology | 2 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| PSYC 140 | General Psychology | 3 | | |
| **Specific Program Requirements** | | | | |
| EMS 100 | Basic Emergency Patient Care | 1 | | |
| OTHA 100 | Intro to Occupational Therapy | 2 | | |
| OTHA 102 | Documentation Guidelines | 2 | | Formal admission to the OTHA program |
| OTHA 103 | Clinical Conditions | 2 | | Formal admission to the OTHA program |
| OTHA 106 | Therapeutic Interventions I | 4 | | Formal admission to the OTHA program |
| OTHA 116 | Level I Fieldwork I | 1 | | Formal admission to the OTHA program |
| OTHA 118 | Assistive Technology | 2 | | BIOL 109, EMTP 102, and OTHA 100, 102, 103, 106 and 116 |
| OTHA 120 | Pediatrics | 3 | | BIOL 109, EMTP 102, and OTHA 100, 102, 103, 106 and 116 |
| OTHA 121 | Level I Fieldwork II | 0.5 | | BIOL 109, EMTP 102, and OTHA 100, 102, 103, 106 and 116 and concurrent enrollment in OTHA 120 |
| OTHA 130 | Analysis of Physical Performance | 3 | | BIOL 109, EMTP 102, and OTHA 100, 102, 103, 106 and 116 |
| OTHA 154 | Applied Neurology | 2 | | BIOL 109 or 110; and BIOL 210 and admission to OTHA or PTHA program |
| OTHA 201 | Mental Health | 2.5 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 202 | Physical Dysfunction | 3 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 203 | Gerontology | 3 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 208 | Therapeutic Interventions II | 2 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 212 | Level I Fieldwork III | 2 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 217 | Fieldwork Seminar | 3 | | OTHA 118, 120, 121, 130 and 154 |
| OTHA 222 | Level II Fieldwork | 12 | | OTHA 201, 202, 203, 208, 212 and 217 |
| **Total Credit Hours Required** | | **74** | | |

# Paralegal Practice

*Offered at MCC-Penn Valley*

A.A.S. Paralegal Practice ...................... 64-67 Credits

This program leads to an Associate in Applied Science degree. It teaches students to prepare and file legal documents, perform legal research, and manage a law office.

## A.A.S. Paralegal Practice

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements**<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| PSYC 140 | General Psychology | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| General Education Electives: Any course(s) numbered 100 or above from the following disciplines: BIOL, CHEM, GEOG (except 104, 110 and GIS Courses), GEOL, MATH, PHYS | | 3-6 | | |
| **Specific Program Requirements** | | | | |
| CRJU 101 | Introduction to Criminal Justice | 3 | | |
| CSIS 115 | Introduction to Microcomputer Applications | 3 | | |
| PARA 100 | Introduction to Paralegal Practice | 3 | | |
| PARA 104 | Principles of Legal Technology | 3 | | PARA 100, CSIS 110 or higher |
| PARA 126 | Criminal Law and Procedures | 3 | | PARA 100 |
| PARA 176 | Legal Research | 3 | | PARA 100 |
| PARA 177 | Legal Writing | 3 | | PARA 176 |
| PARA 185 | Ethics for the Paralegal | 3 | | PARA 100 |
| PARA 290 | Internship in Paralegal Practice | 3 | | PARA 100, 104, 176, 177, 185 |
| PARA | Electives | 12 | | |
| Electives from CRJU, Foreign Language, MATH or CSIS | | 6 | | |
| **Total Credit Hours Required** | | **64-67** | | |

# Paramedic

*Offered at MCC-Penn Valley*

A.A.S. Paramedic .................................... 75-80 Credits
   Paramedic Certificate....................... 50-55 Credits

   This program, which leads to either an Associate in Applied Science degree or a certificate of proficiency, prepares students to work in the emergency medical services field. Graduates are eligible to take the national registry exam for paramedics.

Admission to the Paramedic Program

   Because enrollment in the program is limited, a student must meet the requirements and apply for admission.
      For more information, go to **www.mcckc.edu/EMT**

## A.A.S. Paramedic

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 108 | Introductory Anatomy and Physiology **or** BIOL 109 or BIOL 110 and BIOL 210 | 5-10 | | |
| BIOL 150 | Medical Terminology | 2 | | |
| CHEM 105 | Introductory Chemistry | 5 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 HIST 121 POLS 135 POLS 136 POLS 137 | United States History to 1865 **or** United States History Since 1865 **or** Introduction to Political Science **or** Introduction to American National Politics **or** Introduction to State and Local Politics | 3 | | |
| MATH 110 | Intermediate Algebra | 3 | | MATH 40/40L |
| PSYC 140 | General Psychology | 3 | | |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| EMS 150 | Emergency Medical Technician | 8 | | Student must be 18 years old by the end of the course |
| EMS 200 | Intro to Paramedic Care | 4 | | BIOL 108, or BIOL 109, or BIOL 110 & 210 admission to the Paramedic Program, and Missouri licensed EMT or equivalent from another state. |
| EMS 202 | Paramedic Skills Laboratory I | 2 | | BIOL 108 or 109 or BIOL 110 and 210, admission to the Paramedic program, and Missouri medical tecnician licensure |
| EMS 214 | Paramedic Skills Laboratory II | 2 | | EMS 202 |
| EMS 206 | Paramedic Pharmacology | 4 | | EMS 200 |
| EMS 212 | Emergency Cardiology | 4 | | EMS 206 |
| EMS 218 | Medical Emergencies | 2 | | EMS 212 |
| EMS 224 | Trauma Management | 2 | | EMS 218 |
| EMS 230 | Care of Women and Children | 2 | | EMS 224 |
| EMS 236 | Prehospital Care Integration | 2 | | EMS 230 |
| EMS 254 | Paramedic Hospital Clinical | 5.5 | | EMS 206 |
| EMS 258 | Paramedic Field Internship | 5.5 | | EMS 230 |
| **Total Credit Hours Required** | | **75-80** | | |

# Paramedic

## Paramedic Certificate

| COLL 100        First Year Seminar | 1 | | |
|---|---|---|---|
| Specific Program Requirements | Credits | Semester Taken | Prerequisites |
| BIOL 108        Introductory Anatomy and Physiology *or* BIOL 109 or BIOL 110 and BIOL 210 | 5-10 | | |
| EMS 150        Emergency Medical Technician | 8 | | Student must be 18 years old by the end of the course and must hold a high school diploma or GED |
| EMS 200        Introduction to Paramedic Care | 4 | | BIOL 108, or BIOL 109, or BIOL 110 & 210 admission to the Paramedic Program, and Missouri licensed EMT or equivalent from another state. |
| EMS 202        Paramedic Skills Laboratory I | 2 | | BIOL 108 or 109 or BIOL 110 and 210, admission to the Paramedic program, and Missouri medical tecnician licensure |
| EMS 214        Paramedic Skills Laboratory II | 2 | | EMS 202 |
| EMS 206        Paramedic Pharmacology | 4 | | EMS 200 |
| EMS 212        Emergency Cardiology | 4 | | EMS 206 |
| EMS 218        Medical Emergencies | 2 | | EMS 212 |
| EMS 224        Trauma Management | 2 | | EMS 218 |
| EMS 230        Care of Women and Children | 2 | | EMS 224 |
| EMS 236        Prehospital Care Integration | 2 | | EMS 230 |
| EMS 254        Paramedic Hospital Clinical | 5.5 | | EMS 206 |
| EMS 258        Paramedic Field Internship | 5.5 | | EMS 230 |
| **Total Credit Hours Required** | **50-55** | | |

# Physical Therapist Assistant

*Offered at MCC-Penn Valley*

A.A.S. Physical Therapist Assistant..................73-79 Credits

This program leads to an Associate in Applied Science degree, and prepares students to assist physical therapists in treating patients with physical disabilities at various health care facilities.

Because enrollment to the program is limited, there is a separate application to the program. The program offers a traditional program with all classes at the Health Science

Institute, as a well as a web based program, with lecture classes delivered on-line. Applications for the web based program are due October 1st. Prospective students should download the Prospective Student Information Packet and the Program Application at
**www.mcckc.edu/physicaltherapy**

## A.A.S. Physical Therapist Assistant

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | Credits | Semester Taken | Prerequisites |
| BIOL 100 | Intro to Cell Biology | 3 | | |
| BIOL 109 | Anatomy and Physiology *or* | | | |
| BIOL 110 | Human Anatomy *and* | 6-10 | | BIOL 100 or CHEM 105 |
| BIOL 210 | Human Physiology | | | |
| BIOL 150 | Medical Terminology | 2 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120 | United States History to 1865 *or* | | | |
| HIST 121 | United States History Since 1865 *or* | | | |
| POLS 135 | Introduction to Political Science *or* | 3 | | |
| POLS 136 | Introduction to American National Politics *or* | | | |
| POLS 137 | Introduction to State and Local Politics | | | |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Prerequisite Courses** | | | | |
| PTHA 151 | Intro to Physical Therapy | 2 | | |
| **Specific Program Requirements** | | | | |
| EMS 102 | Basic Emergency Patient Care | 1 | | |
| PTHA 152 | Physical Therapy Fundamentals I | 4 | | Formal acceptance into the program |
| PTHA 153 | Kinesiology | 4 | | BIOL 109 or BIOL 110 and BIOL 210 PTHA 152 and 160 |
| PTHA 154 | Applied Neurology | 2 | | BIOL 109 or 110; and BIOL 210 and admission to OTHA or PTHA program |
| PTHA 155 | Rehabilitation | 4 | | PTHA 162 |
| PTHA 158 | Therapeutic Exercise | 4 | | PTHA 162 |
| PTHA 159 | Orthopedic Pathology | 2 | | BIOL 109 or BIOL 110 and BIOL 210 PTHA 152 and 160 |
| PTHA 160 | Medical Diseases | 2 | | Formal acceptance into the program |
| PTHA 161 | Physical Therapy Fundamentals II | 4 | | BIOL 109 or BIOL 111 and BIOL 210, PTHA 152 and 160 |
| PTHA 162 | Clinical Experience I | 2 | | PTHA 153, 154, 159, 161 and EMS 102 |
| PTHA 164 | Pediatrics and Gerontology | 2 | | PTHA 162 |
| PTHA 170 | Clinical Experience II | 2 | | PTHA 162, concurrent enrollment in PTHA 155, 158, 164 and 171 |
| PTHA 171 | Clinical Seminar | 2 | | PTHA 162 |
| PTHA 172 | Clinical Experience III | 12 | | Completion of all other required courses in the PTHA program |
| **Total Credit Hours Required** | | **73-79** | | |

# Polysomnography/Sleep Technology

*Offered at Johson County Community College. Coordinated at MCC*

**A.A.S. Polysomnography/Sleep Tech.............66-72 Credits**

Polysomnography is the physiologic recording of variables such as brain waves, eye movement, muscle tone, breathing and heart rhythm during sleep. More than 80 different types of sleep disorders have been identified, with obstructive sleep apnea (OSA) symptoms occurring in 1 out of every 20 people.

Graduates of the program will enter the field as polysomnographic technicians and will be prepared to sit for the national exam administered by the Board of Registered Polysomnographic Technologists (BRPT) to gain the Registered Polysomnographic Technologist (RPSGT) credential. Students must be accepted into the program by both MCC and JCCC. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Polysomnography/Sleep Technology

| Specific Program Requirements- Must be taken at JCCC | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| EMS 121 | CPR I- Basic Live Support Healthcare Provider + | 1 | | |
| PSG 125 | Introduction to Sleep Medicine * | 4 | | |
| PSG 130 | Physiology of Sleep Medicine * | 3 | | |
| PSG 140 | Sleep Disorders * | 4 | | |
| PSG 145 | Sleep Study Instrumentation * | 4 | | |
| PSG 150 | Polysomnography I * | 4 | | |
| PSG 245 | Polysomnography Clinical I * | 6 | | |
| PSG 250 | Polysomnography II * | 4 | | |
| PSG 255 | Polysomnography Clinical II * | 6 | | |
| PSG 265 | Polysomnography Capstone | 3 | | |
| Total Credits at JCCC | | 39 | | |
| * Prerequisite/Corerequisite required | | | | |
| + Students may take a PHED course at MCC if they current AHA BLS Health Care Provider Certification, otherwise students are required to take EMS 121- Basic Live Support Healthcare Provider at JCCC. | | | | |
| **Specific Program Requirements- Must be taken at MCC** | | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or satisfactory score on the ASSET test |
| CHEM 105 | Introductory Chemistry ^ | 5 | | |
| BIOL 108 | Introductory Anatomy and Physiology ^ or | 5 | | |
| BIOL 110 | Human Anatomy ^ and | | | |
| BIOL 210 | Human Physiology ^ | | | BIOL 100 and BIOL 110 or CHEM 105 |
| MATH 110 | Intermediate Algebra ^ or | | | MATH 40 or MATH 40L or satisfactory score on placement test |
| MATH 120 | College Algebra or higher | | | MATH 110or satisfactory score on placement test |
| BIOL 150 | Medical Terminology ** or | 2 | | |
| HITE 103 | Medical Terminology for Health Records ** | 3 | | |
| Communications Elective | | 3 | | |
| Humanities Elective | | 3 | | |
| Social Science/Economics Elective | | 3 | | |
| **Total Program Credit Hours** | | **66-72** | | |

** or satisfactory completion of a health related degree or certificate
**Social Science and Economics Electives that will transfer from MCC to JCCC:**
ANTH 100, ANTH 110, ANTH 120, ECON 110, ECON 210, ECON 211, GEOG 111, GEOG 112, POLS 135, POLS 136, POLS 137, POLS 234, PSYC 140, SOCI 160, SOCI 163, SOCI 170, SOCI 220
**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 133, HIST 134, HIST 140, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128
**Communication electives that will transfer from MCC to JCCC:**
BSAD 221, ENGL 102, ENGL 215, SPDR 100, SPDR 102, SPDR 103, SPDR 133
Indicates prerequisite courses, which must be completed prior to the clinic year at JCCC. The elective courses must be completed for the AAS degree, which establishes eligibility for the Registered Polysomnographic Technologist examination.

# Practical Nursing

*Offered at MCC-Penn Valley*

Practical Nursing Certificate ........... 53-59 Credits

**Accreditation**

This program leads to a certificate of proficiency and prepares students to take the National Council of State Boards of Licensure Examination for Practical Nurses. Graduates who pass the exam can accept entry-level jobs as licensed LPNs. The Practical Nursing Program is conditionally approved by the Missouri State Board of Nursing and accredited by the National League of Nursing Accrediting Commission. The MSBN can be contacted at 3605 MO Blvd., P.O Box 656 Jefferson City, MO 65102-0656; telephone 573-751-0681. The National League for Nursing Accrediting Commission can be contacted as a resource for information on the nursing program. The League's address is 350 Hudson St., New York, NY 10014; phone (212) 989-9393.

For more information, go to **www.mcckc.edu/pvnursing**

## Practical Nursing Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 100 Introduction to Cell Biology *or* <br> CHEM 105 Introduction Chemistry for Health Sciences <br> BIOL 109 Anatomy and Physiology *or* <br> BIOL 110 Anatomy and BIOL 210 Physiology | | 6-10 | | BIOL 100 or CHEM 105 <br> BIOL 110 and either BIOL 100 or CHEM 205 |
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| PNUR 100 | Personal and Vocational Concepts | 1 | | Biology 109 or Biology 110 and BIOL 210 and Admission to the PN Program |
| PNUR 103 | Fundamentals of Practical Nursing II | 10 | | |
| PNUR 110 | Pharmacology | 4 | | PNUR 103 |
| PNUR 128 | Mental Health Nursing | 4 | | PNUR 110 |
| PNUR 132 | The Childbearing Family | 4 | | PNUR 110 |
| PNUR 136 | Venous Access and Intravenous Infusion | 1 | | PNUR 110 |
| PNUR 138 | Nursing of the Adult I | 8 | | PNUR 110 |
| PNUR 144 | Nursing of the Adult II | 8 | | PNUR 138 |
| PNUR 146 | Leadership | 3 | | PNUR 144 |
| **Total Credit Hours Required** | | **53-59** | | |

# Professional Nursing

*Offered at MCC-Penn Valley*

## A.A.S. Professional Nursing .................. 71-77 Credits

The Professional Nursing program plan leads to the Associate in Applied Science in Nursing degree. Beginning students are prepared to take the National Council of State Boards of Nursing Licensure Examination for Registered Nurses. Graduates who pass the exam can accept entry-level jobs in acute, intermediate and long-term care facilities. For more information, go to www.mcckc.edu/pvnursing

### Admission to the program

Every student in the nursing program should be aware that the Missouri State Board of Nursing may refuse to issue a license to any person who has been found guilty of violating federal or state laws and for any of the 15 causes listed in Section 335.066 of the Missouri Revised Statues 1986. Copies of this law are available from the Missouri State Board of Nursing.

### Accreditation

The nursing program is fully approved by the Missouri State Board of Nursing and is accredited by The National League of Nursing Accrediting Commission. The Missouri State Board of Nursing can be contacted at 3605 Missouri Boulevard, P.O. Box 656, Jefferson City, MO 65102-0656; telephone 573-751-0681. The National League for Nursing Accrediting Commission can be contacted at 3343 Peachtree Road NE, suite 500 Atlanta, GA 30326; P – 404-975-5000; fax – 404-975-5020.

## A.A.S. Professional Nursing

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Prerequisite Courses:** | | Credits | Semester Taken | Prerequisites |
| BIOL 100<br>CHEM 105 | Intro to Cell Biology *or*<br>Introductory Chemistry | 3-5 | | MATH 20/20L or appropriate placement test score |
| BIOL 109<br>BIOL 110<br>BIOL 210 | Anatomy and Physiology *or*<br>Human Anatomy *and*<br>Human Physiology | 6-10 | | BIOL 100 or CHEM 105 (BIOL 109)<br>BIOL 100 or CHEM 105 and BIOL 110 (BIOL 110 & 210) |
| PSYC 140 | General Psychology | 3 | | |
| **General Education Requirements** | | | | |
| BIOL 208 | Microbiology | 5 | | BIOL 100 or CHEM 105 or higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109, or 110. |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics<br>*Students transferring one of these courses from out of state will be required to complete POLS 153 The Missouri Constitution.* | 3 | | |
| PSYC 243 | Human Lifespan Development | 4 | | PSYC 140 |
| SOCI 160 | Sociology | 3 | | |
| SPDR 100<br>SPDR 102 | Fundamentals of Speech *or*<br>Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| RNUR 126 | Fundamentals of Professional Nursing | 6 | | Admission to the nursing program; completion of or concurrent enrollment in PSYC 243 |
| RNUR 131 | Essential Nursing Concepts | 2 | | Admission to the nursing program; completion of or concurrent enrollment in PSYC 243 |
| RNUR 134 | Mental Health Nursing | 4 | | Admission to nursing program; completion of RNUR 126, RNUR 131, PSYC 243; completion of or concurrent enrollment in BIOL 208 |
| RNUR 138 | Nursing Care of Women and Neonates | 4 | | Admission to nursing program; completion of RNUR 126, RNUR 131, PSYC 243; completion of or concurrent enrollment in BIOL 208 |
| RNUR 141 | Adult Nursing I | 3 | | Admission to nursing program; completion of RNUR 126, RNUR 131, PSYC 243; completion of or concurrent enrollment in BIOL 208 |
| RNUR 230 | Leadership/Management/Trends | 2 | | ENGL 101, SOCI 160, RNUR 234, 238, SPDR 100 OR 102, HIST 120/121 OR POLS 135/136/137 (Constitutional requirement may be taken concurrently) |
| RNUR 234 | Child-Centered Nursing | 4 | | BIOL 208, RNUR 134, 138, 141 or taken concurrently: ENGL 101, SOCI 160 |
| RNUR 238 | Adult Nursing II | 5 | | BIOL 208, RNUR 134, 138, 141 or taken concurrently: ENGL 101, SOCI 160 |
| RNUR 244 | Adult Nursing III | 7 | | ENGL 101, SOCI 160, RNUR 234, RNUR 238, or taken concurrently: SPDR 100 & HIST 120/121 or POLS 135/136/137 or SOSC 151 |
| **Total Credit Hours Required** | | **71-77** | | |

# Radiologic Technology

*Offered at MCC-Penn Valley*

A.A.S. Radiologic Technology ..............................78 Credits

This program leads to an Associate in Applied Science degree and prepares students for entry-level jobs as radiologic technologists in a hospital or outpatient setting. Graduates are eligible to take the national certifying exam given by the American Registry of Radiologic Technologists.

Enrollment in this program is limited. The application form may be obtained from the program coordinator, the counseling department, or the office of the division of life science.

For more information, go to **www.mcckc.edu/radiology**

## A.A.S. Radiologic Technology

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| BIOL 110 | Human Anatomy | 5 | | |
| BIOL 150 | Medical Terminology | 2 | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 110 | Intermediate Algebra or higher | 3 | | MATH 40 or 40L |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements** | | | | |
| RATE 150 | Introduction to Radiologic Technology | 2 | | |
| RATE 160 | Fundamentals of Radiologic Technology | 2 | | |
| RATE 165 | Patient Care | 3 | | RATE 160 |
| RATE 171 | Radiographic Imaging I | 3 | | RATE 160 |
| RATE 172 | Radiographic Procedures I | 3 | | RATE 160, concurrent enrollment in RATE 165 and 173 |
| RATE 173 | Clinical Practice I | 3 | | RATE 160 and concurrent enrollment in RATE 165 and 172 |
| RATE 174 | Radiographic Imaging II | 2 | | RATE 160 and concurrent enrollment in RATE 180 |
| RATE 175 | Clinical Practice II | 4 | | RATE 173 and concurrent enrollment in RATE 176 |
| RATE 176 | Radiographic Procedures II | 3 | | BIOL, RATE 165, 172, 173, concurrent enrollment in RATE 175 |
| RATE 178 | Clinical Practice III | 4 | | RATE 175 |
| RATE 180 | Digital Imaging Environment | 2 | | RATE 171 |
| RATE 270 | Radiation Biology and Protection | 3 | | RATE 174, 180 |
| RATE 278 | Pathology | 2 | | RATE 279, 280 and concurrent enrollment in RATE 282 |
| RATE 279 | Radiographic Procedures III | 2 | | RATE 176 and concurrent enrollment in RATE 280 |
| RATE 280 | Clinical Practice IV | 5 | | RATE 178, concurrent enrollment in RATE 279 |
| RATE 281 | Radiation Physics | 3 | | RATE 171 and RATE 180 |
| RATE 282 | Clinical Practice V | 5 | | RATE 280 |
| RATE 283 | Final Seminar | 2 | | RATE 279 and 280 |
| RATE 285 | Imaging Modalitics | 2 | | RATE 176 and concurrent enrollment in RATE 279 and 280 |
| **Total Credit Hours Required** | | **78** | | |

# Railroad Operations Technology

*Offered at Johnson County Community College*
*Coordinated at MCC*

### A.A.S. Railroad Op. Tech. Railroad
Conductor ........................................... 64 Credits

This program leads to an Associate in Applied Science degree in Railroad Conductor. Students must be accepted into the program by both MCC and JCCC. The student is awarded the degree from JCCC upon successful completion of all requirements.

Program course and credit hours are subject to change because of the requirement changes at the degree-granting institution. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

## A.A.S. Railroad Op. Tech. Railroad Conductor

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| BSAD 150 | Business Essentials | 3 | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | Keyboarding skills or enrollment in CSOF 80 |
| CSOF 101 | Introduction to Word Processing | 1 | | Keyboarding skills with minimum of 35 wpm |
| CSOF 102 | Introduction to Spreadsheet Applications | 1 | | |
| ECON 110 | Introduction to Economics or | 3 | | |
| ECON 210 | Macroeconomics | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 215 | Technical Writing | 3 | | ENGL 101 |
| MATH 103 | Technical Mathematics I | 3 | | MATH 40 or 40L or satisfactory score on math placement test |
| PHED or Health Elective* | | 1 | | |
| PHIL 200 | Logic | 3 | | |
| SPDR 102 | Fundamentals of Human Communication | 3 | | ENGL 30 or appropriate placement test score |
| **Specific Program Requirements**<br>*Must be taken at Johnson County Community College* | | | | |
| MTH 131 | Technical Mathematics II* | 3 | | |
| PHIL 138 | Business Ethics | 1 | | |
| PHYS 133 | Applied Physics* | 5 | | |
| RRT 120 | History of Railroading | 3 | | |
| RRT 121 | Railroad Technical Careers | 3 | | |
| RRT 150 | Railroad Operations | 3 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| RRT 165 | Railroad Safety, Quality and Environment | 3 | | |
| RRTC 123 | Introduction to Conductor Service* | 4 | | |
| RRTC 175 | Conductor Mechanical Operations* | 2 | | |
| RRTC 261 | Conductor Service* | 2 | | |
| RRTC 263 | General Code of Operating Rules* | 4 | | |
| RRTC 267 | Conductor Field Application* | 4 | | |
| **Technical Electives — Must be taken at JCCC:** | | | | |
| AUTO 125 | Introduction to Automotive Shop Practices | 3 | | |
| AUTO 165 | Automotive Engine Repair* | 4 | | |
| CET 105 | Construction Methods | 3 | | |
| CET 129 | Construction Management | 3 | | |
| CPCA 138 | Windows for Microcomputers* | 1 | | |
| DRAF 123 | Interpreting Machine Drawings* | 2 | | |
| DRAF 129 | Interpreting Architectural Drawings | 2 | | |
| ELEC 120 | Introduction to Electronics | 3 | | |
| ELEC 126 | Microcomputer A+ Preparation | 3 | | |
| ELEC 133 | Programmable Controllers | 3 | | |
| ELEC 150 | Introduction to Telecommunications | 3 | | |
| ENGR 180 | Engineering Land Surveying I* | 3 | | |
| GEOS 140 | Physical Geography | 3 | | |
| GEOS 141 | Physical Geography Lab* | 2 | | |
| HVAC 123 | Electromechanical Systems | 4 | | |
| INDT 125 | Industrial Safety/OSHA 30 | 3 | | |
| MFAB 130 | Introduction to Gas Metal Arc Welding I (GMAW I)* | 4 | | |
| MFAB 152 | Manufacturing Materials and Processes | 3 | | |
| MFAB 240 | Metallurgy | 2 | | |
| *Prerequisite/Corequisite required | | | | |
| **Total Credit Hours** | | **64** | | |

# Respiratory Care

*Offered at Johnson County Community College. Coordinated at MCC-Penn Valley*

## A.A.S. Respiratory Care................................. 75-78 Credits

This program, offered under the auspices of Johnson County Community College (JCCC), leads to an Associate in Applied Science degree and qualifies the student for the National Board for Respiratory Care examination process. Additional program information may be acquired from the counseling office at MCC-Penn Valley and from the academic director at JCCC. Students must be accepted into the program by both MCC and JCCC. The student is awarded the degree from JCCC upon successful completion of all requirements. It is the student's responsibility to check with an MCC counselor or advisor before enrollment.

### Eligibility

To be considered for admission to the program, a student must complete all required college courses in English, mathematics, and science with a minimum grade of C and must have minimum overall college GPA of 2.0.

### Admission to the Program

The number of MCC students admitted to the program is limited. In order to be certain that they will be considered for admission to the class, which begins its specialized course work in June, an MCC student must complete the application process by the previous October 15. Applications are not considered until all required material has been submitted. If openings remain for MCC students after the initial applications have been reviewed, students who have missed the deadline will be considered if their applications are completed by February 15. Further information is available in the counseling office at MCC-Penn Valley and from the academic director at JCCC.

Selection of students for the program is determined by the ranking of applications according to the interview score, the overall college GPA, and the GPA in prerequisite courses. Further information is available from the Director of the Respiratory Care Program at JCCC.

Note: All English, mathematics, and science courses must be completed successfully before the student is eligible for the clinical courses at JCCC. Students may make application, however, if coursework will be completed by the clinical year.

## A.A.S. Respiratory Care

| Specific Program Requirements<br>*Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| BIOL 110 | Human Anatomy^ | 5 | | |
| BIOL 208 | Microbiology^ | 5 | | BIOL 100 or CHEM 105 or higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109, or 110. |
| BIOL 210 | Human Physiology^ | 5 | | BIOL 110, either BIOL 100 or CHEM 105 |
| CHEM 105 | Introductory Chemistry^ | 5 | | |
| ENGL 101 | Composition and Reading I^ | 3 | | ENGL 30 or appropriate placement test score |
| MATH 110 | Intermediate Algebra **or** | 3 | | MATH 40 or 40L (MATH 110) |
| MATH 120 | College Algebra or higher^ | | | MATH 110 (MATH 120) |
| Social Science/Economics Elective | | 3 | | See Courses section of this catalog for individual course prerequisites. |
| Communications Elective | | 3 | | |
| Humanities Elective | | 3 | | |
| Specific Program Requirements<br>*Must be taken at Johnson County Community College* | | | | |
| EMS 121 | CPR I Basic Life Support Healthcare Provider | 1 | | |
| HC 101 | Introduction to Health Care Delivery** | 3 | | |
| RC 125 | Beginning Principles of Respiratory Care* | 4 | | |
| RC 130 | Respiratory Care Equipment* | 4 | | |
| RC 135 | Cardiopulmonary Medicine I* | 1 | | |
| RC 220 | Clinical Cardiopulmonary Physiology* | 2 | | See JCCC course descriptions in the Courses section of this catalog for individual course prerequisites. |
| RC 230 | Clinical Topics and Procedures I* | 4 | | |
| RC 231 | Clinical Topics and Procedures II* | 4 | | |
| RC 233 | Respiratory Care of Children* | 2 | | |
| RC 235 | Cardiopulmonary Medicine II* | 2 | | |
| RC 236 | Cardiopulmonary Medicine III* | 2 | | |
| RC 240 | Cardiopulmonary Pharmacology* | 2 | | |
| RC 271 | Clinical Practice I* | 6 | | |
| RC 272 | Clinical Practice II* | 6 | | |
| **Total Credit Hours Required** | | **75-78** | | |

^Indicates prerequisite courses, which must be completed prior to the clinic year at JCCC. The elective courses must be completed for the AAS degree, which establishes eligibility for the National Board for Respiratory Care examinations.
**HC 101 is not a required course for the degree but is strongly encouraged. See the program application packet for details on how this course may be used to meet clinic-year eligibility requirements.
**Social Science and Economics Electives that will transfer from MCC to JCCC:**
ANTH 100, ANTH 110, ANTH 120, ECON 110, ECON 210, ECON 211, GEOG 111, GEOG 112, POLS 135, POLS 136, POLS 137, POLS 234, PSYC 140, SOCI 160, SOCI 163, SOCI 170, SOCI 220
**Humanities Electives that will transfer from MCC to JCCC:**
ART 108, ART 150, ART 151, ART 159, ENGL 214, ENGL 216, ENGL 218, ENGL 220, ENGL 221, ENGL 222, ENGL 223, ENGL 234, ENGL 240, ENGL 250, ENGL 254, ENGL 255, ENGL 256, ENGL 268, FREN 203, FREN 204, SPAN 203, SPAN 204, HIST 120, HIST 121, HIST 133, HIST 134, HIST 140, HIST 150, HUMN 133, HUMN 134, HUMN 140, HUMN 145, MUSI 108, MUSI 160, PHIL 100, PHIL 101, PHIL 200, PHIL 201, PHIL 203, SPDR 106, SPDR 114, SPDR 128
**Communication electives that will transfer from MCC to JCCC:**
BSAD 221, ENGL 102, ENGL 215, SPDR 100, SPDR 102, SPDR 103, SPDR 133

# Surgical Technology

*Offered at MCC-Penn Valley*

Surgical Technology ....................................... 63-69 Credits
Surgical Technology Certificate ...................... 51-57 Credits

This program leads to an Associate in Applied Science degree or certificate of proficiency and prepares students for entry-level jobs as operating room technicians.

## A.A.S. Surgical Technology

| | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| COLL 100 | First Year Seminar | 1 | | |
| **General Education Requirements** *Must be taken at one of the MCC campuses* | | | | |
| BIOL 100 CHEM 105 | Introduction to Cell Biology *or* Introductory Chemistry for Health Sciences | 3-5 | | MATH 20 or satisfactory score or placement test |
| BIOL 109 BIOL 110 BIOL 210 | Anatomy and Physiology *or* Human Anatomy *and* Human Physiology | 6-10 | | BIOL 100 *or* CHEM 105 <br><br> BIOL 110 *and* either BIOL 100 *or* CHEM 105 |
| BIOL 150 | Medical Terminology | 2 | | |
| BIOL 208 | Microbiology | 5 | | BIOL 100 *or* CHEM 205 *or* higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109, *or* 110 |
| ENGL 101 | Composition and Reading I | 3 | | |
| HIST 120 HIST 121 POLS 135 POLS 136 POLS 137 | United States History to 1865 or United States History Since 1865 or Introduction to Political Science or Introduction to American National Politics or Introduction to State and Local Politics | 3 | | |
| PSYC 140 | General Psychology | 3 | | |
| SPDR 100 SPDR 102 | Fundamentals of Speech or Fundamentals of Human Communications | 3 | | |
| **Specific Program Requirements** | | | | |
| STNU 100 | Introduction to Surgical Technology | 2 | | |
| STNU 101 | Care of the Surgical Patient | 3 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 102 | Principles of Surgical Technology I | 5 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 103 | Principles of Surgical Technology II | 4 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 105 | Pharmacology for the Surgical Technologist | 2 | | STNU 100, 101, 102, 103 |
| STNU 120 | Surgical Procedures I | 4 | | STNU 100, 101, 102, 103 |
| STNU 121 | Clinical Experience I | 2 | | STNU 100, 101, 102, 103 and concurrent enrollment in STNU 120 |
| STNU 130 | Surgical Procedures II | 4 | | STNU 105, 120, 121 |
| STNU 131 | Clinical Experience II | 2 | | STNU 105, 120, 121 and concurrent enrollment in STNU 130 |
| STNU 140 | Surgical Procedures III | 4 | | STNU 105, 120, 121 |
| STNU 141 | Clinical Experience III | 2 | | STNU 105, 120, 121 and STNU concurrent enrollment in STNU 140 |
| **Total Credit Hours Required** | | **63-69** | | |

# Surgical Technology

*Offered at MCC-Penn Valley*

## Surgical Technology Certficate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **General Education Requirements** *Must be taken at one of the MCC campuses* | | Credits | Semester Taken | Prerequisites |
| BIOL 100 CHEM 105 | Introduction to Cell Biology *or* Introductory Chemistry for Health Sciences | 3-5 | | MATH 20 or satisfactory score or placement test |
| BIOL 109 BIOL 110 BIOL 210 | Anatomy and Physiology *or* Human Anatomy *and* Human Physiology | 6-10 | | BIOL 100 *or* CHEM 105 BIOL 110 *and* either BIOL 100 *or* CHEM 105 |
| BIOL 150 | Medical Terminology | 2 | | |
| BIOL 208 | Microbiology | 5 | | BIOL 100 *or* CHEM 205 *or* higher, plus one of the following courses: BIOL 101, 104, 106, 108, 109, *or* 110 |
| **Specific Program Requirements** | | | | |
| STNU 100 | Introduction to Surgical Technology | 2 | | |
| STNU 101 | Care of the Surgical Patient | 3 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 102 | Principles of Surgical Technology I | 5 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 103 | Principles of Surgical Technology II | 4 | | BIOL 100 or CHEM 105, BIOL 109 or 110 and BIOL 210, 150, 208. Formal acceptance into the program |
| STNU 105 | Pharmacology for the Surgical Technologist | 2 | | STNU 100, 101, 102, 103 |
| STNU 120 | Surgical Procedures I | 4 | | STNU 100, 101, 102, 103 |
| STNU 121 | Clinical Experience I | 2 | | STNU 100, 101, 102, 103 and concurrent enrollment in STNU 120 |
| STNU 130 | Surgical Procedures II | 4 | | STNU 105, 120, 121 |
| STNU 131 | Clinical Experience II | 2 | | STNU 105, 120, 121 and concurrent enrollment in STNU 130 |
| STNU 140 | Surgical Procedures III | 4 | | STNU 105, 120, 121 |
| STNU 141 | Clinical Experience III | 2 | | STNU 105, 120, 121 and STNU concurrent enrollment in STNU 140 |
| **Total Credit Hours Required** | | **51-57** | | |

# Trade Apprenticeship Degree Completion Programs
*Offered at MCC-Business & Technology*

These degree completion programs grant college credit by certification for certain federally approved apprenticeship programs. An eligible apprenticeship must contain a minimum 450 clock hours of classroom instruction and a program-specific number of clock hours of on-the-job training. Thirty to forty-two hours of MCC credit leading toward an AAS in Industrial Technology will be awarded upon completion of 15 hours of MCC coursework and receipt of a certificate and/or journeyman card for the appropriate craft.

# Construction Trades Apprenticeship Programs
*Offered at MCC-Business & Technology*

These degree completion programs grant college credit by certification for certain federally approved apprenticeship programs. An eligible apprenticeship must contain a minimum 450 clock hours of classroom instruction and a program-specific number of clock hours of on-the-job training. Thirty to forty-two hours of MCC credit leading toward an AAS in Industrial Technology will be awarded upon completion of 15 hours of MCC coursework and receipt of a certificate and/or journeyman card for the appropriate craft.

A.A.S. Industrial Technologies

| | |
|---|---|
| Bricklayer | 64-66 Credits |
| Construction Carpentry | 64-66 Credits |
| Construction Cement Masons | 64-66 Credits |
| Construction Driver & Logistics | 63-67 Credits |
| Construction Ironwork | 64-66 Credits |
| Construction Laborer | 64-66 Credits |
| Floor Layer | 64-66 Credits |
| Glaziers | 64-66 Credits |
| Inside Wiring | |
|   3 -Year program | 64-66 Credits |
|   5 -Year program | 67-68 Credits |
| Painter | 64-66 Credits |
| Plumbing | 64-66 Credits |

# Industrial Trades Apprenticeship Programs
*Offered at MCC-Business & Technology*

These degree completion programs grant college credit by certification for certain federally approved apprenticeship programs. An eligible apprenticeship must contain a minimum 450 clock hours of classroom instruction and a program-specific number of clock hours of on-the-job training. Thirty to forty-two hours of MCC credit leading toward an AAS in Industrial Technology will be awarded upon completion of 15 hours of MCC coursework and receipt of a certificate and/or journeyman card for the appropriate craft.

A.A.S. Industrial Technology

| | |
|---|---|
| Industrial Mechanic | 64-66 Credits |
| Industrial Pipefitter/Sprinkler Fitter | 65-67 Credits |
| Industrial Warehouse Worker | 62-63 Credits |
| Industrial Welder | 65-67 Credits |
| Lineman Tech/Cable Splicer | 63-65 Credits |
| Maintenance Electrician | 63-65 Credits |
| Millwright | 64-66 Credits |
| Sheet Metal | 64-66 Credits |

# Veterinary Technology

*Offered at MCC-Maple Woods*

A.A.S. Veterinary Technology ..........................................78 Credits

The Veterinary Technology program is a two-year, full-time day program accredited by the American Veterinary Medical Association. This program provides the educational background necessary to perform nursing and technical duties used in clinical practice or research. Graduates of the program will be able to sit for the state and national board examinations to become a Registered Veterinary Technician.

Admission to the Program

Admission to the program is limited so that each student has full access to our outstanding instructors and facilities. To be admitted to the program, students must meet certain requirements. Students can view the requirements and obtain an application packet online.

Call the program office (816) 604-3235 for more information
For more information, go to **www.mcckc.edu/veterinary**

## A.A.S. Veterinary Technology

| | | Credits | Semester Taken | Prerequisites |
|---|---|---|---|---|
| COLL 100 | First Year Seminar | 1 | | |
| **General Education Requirements** | | | | |
| ENGL 101 | Composition and Reading I | 3 | | ENGL 30 or appropriate placement test score |
| ENGL 102 | Composition and Reading II | 3 | | ENGL 101 |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History Since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| SPDR 100<br>SPDR 103 | Fundamentals of Speech or<br>Interpersonal Communication | 3 | | ENGL 30 or appropriate placement test score |
| BIOL 106 | General Zoology (101 may also be used) | 5 | | |
| BIOL 208 | Microbiology | 5 | | BIOL 100 or CHEM 105 or higher, plus BIOL 101 or 106 |
| CHEM 105<br>CHEM 111 | Introductory Chemistry or<br>General College Chemistry | 5 | | |
| **Specific Program Requirements** | | | | |
| VETT 100 | Veterinary Practice Management | 2 | | |
| VETT 101 | Principles of Animal Science I | 4 | | |
| VETT 108 | Clinical Mathematics for Veterinary Technicans | 1 | | Admission into Veterinary Technician Program. |
| VETT 110 | Principles of Animal Science II | 4 | | VETT 101 |
| VETT 111 | Sanitation and Animal Care | 2 | | |
| VETT 200 | Veterinary Hospital Technology I | 3 | | VETT 101 and 110 |
| VETT 201 | Clinical Pathology Techniques | 4 | | |
| VETT 202 | Veterinary Anatomy | 5 | | BIOL 101 or 106 |
| VETT 203 | Laboratory Animal Technology | 2 | | VETT 101, 110 and 201 |
| VETT 209 | Equine Medicine and Management | 3 | | VETT 212 |
| VETT 210 | Veterinary Hospital Technology II | 3 | | VETT 200 |
| VETT 211 | Clinical Pathology Techniques II | 5 | | VETT 201 |
| VETT 212 | Large Animal Technology | 4 | | VETT 101 and 110 |
| VETT 213 | Radiology and Electronic Procedures | 2 | | |
| VETT 214 | Veterinary Technician Preceptorship | 6 | | Two semesters of 1st year VETT tech courses |
| **Total Credit Hours Required** | | **78** | | |

# Welding

*Offered at MCC-Business & Technology*

A.A.S. Welding Technology and Management
.......................................................... 63-68 Credits
    MIG Certificate................................ 22-23 Credits
    MIG/TIG Certificate......................... 22-23 Credits
    Welding and Fabrication Certificate
.......................................................... 18-21 Credits

This Welding Technology & Management program provides the students with the training that meets the standards of the American Welding Society's curriculum. Curriculum will prepare the students to successfully pass the AWS written certification tests.

This will allow the student to engage in gainful employment in the welding/fabrication industry as welding is one of the high-demand occupations designated by the state of Missouri. Students completing the two-year degree will acquire the skills required of managerial and technical training personnel. This will allow students to transcend the welding industry into other welding-related careers when these opportunities are present, fulfilling the personal desires of promotion throughout their careers. Students completing welding certificates can later come back and integrate course work already completed into the two-year degree and complete the degree while employed.

## A.A.S. Welding Technology and Management

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| General Requirements | | Credits | Semester Taken | Prerequisites |
| ENGL 101 | Composition and Reading I | 3 | | ENG 30 or appropriate placement score. |
| HIST 120<br>HIST 121<br>POLS 135<br>POLS 136<br>POLS 137 | United States History to 1865 *or*<br>United States History since 1865 *or*<br>Introduction to Political Science *or*<br>Introduction to American National Politics *or*<br>Introduction to State and Local Politics | 3 | | |
| MATH 103<br>MATH 103R<br>MATH 104<br>MATH 120<br>MATH 130<br>MATH 150 | Technical Mathematics I *or*<br>Technical Mathematics I w/ review *and*<br>Technical Mathematics II *or*<br>College Algebra *and*<br>Trigonometry *or*<br>PreCalculus | 5-7 | | MATH 40 or MATH 40L or appropriate placement score.<br>MATH 20 or 20L or appropriate placement score to MATH 103R.<br>MATH 103<br>MATH 110 or satisfactory score on the math placement test.<br>MATH 120 or satisfactory score on the placement test.<br>MATH 110 or satisfactory score on the math placement test. |
| SPAN 100 | Beginning Occupational Spanish | 3 | | |
| SPDR 100 | Fundamentals of Speech | 3 | | |
| Specific Program Requirements | | | | |
| CSOF 100 | Introduction to Personal Computing | 1 | | |
| EHSS 111<br>EHSS 112 | Introduction to Health & Safety for General Industry *or*<br>Introduction to Health & Safety for Construction | 1 | | |
| INTE 124 | Employment Strategies for Technical Careers | 2 | | CSOF 100 or CSIS 115 |
| WELD 110 | Welding Industry Fundamentals | 3 | | |
| WELD 120 | Thermal Cutting Processes Lecture | 1 | | WELD 110 or concurrent enrollment |
| WELD 121 | Thermal Cutting Processes Lab | 2 | | WELD 120 or concurrent enrollment |
| WELD 130 | Print Reading & Weld Symbols | 3 | | |
| WELD 140 | Shielded Metal Arc Welding I (stick) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 141 | Shielded Metal Arc Welding I (stick) Lab | 2 | | WELD 140 or concurrent enrollment |
| WELD 150 | Gas Metal Arc Welding I (MIG)(stick) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 151 | Gas Metal Arc Welding I (MIG)(stick) Lab | 2 | | WELD 150 or concurrent enrollment |
| WELD 160 | Gas Tungsten Arc Welding I (TIG) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 161 | Gas Tungsten Arc Welding I (TIG) Lab | 2 | | WELD 160 or concurrent enrollment |
| WELD 230 | Layout and Fabrication Lecture | 1 | | WELD 130 and one WELD 100 level lecture & lab |
| WELD 231 | Layout and Fabrication Lab | 2 | | WELD 230 and one WELD 100 level lecture & lab |
| WELD 240 | Shielded Metal Arc Welding II (stick) Lecture | 1 | | WELD 141 |
| WELD 241 | Shielded Metal Arc Welding II (stick) Lab | 2 | | WELD 240 |
| WELD 250 | Gas Metal Arc Welding II (MIG) Lecture | 1 | | WELD 151 |
| WELD 251 | Gas Metal Arc Welding II (MIG) Lab | 2 | | WELD 250 |
| WELD 260 | Gas Tungsten Arc Welding II (TIG) Lecture | 1 | | WELD 161 |
| WELD 261 | Gas Tungsten Arc Welding II (TIG) Lab | 2 | | WELD 260 |
| WELD 270 | Flux Core Arc Welding Lecture | 1 | | WELD 151 or concurrent enrollment |
| WELD 271 | Flux Core Arc Welding Lab | 2 | | WELD 270 or concurrent enrollment |
| WELD 290 | Management Skills for the Trades | 3 | | WELD 231 and one WELD 100 level lecture & lab |
| Electives: BSAD, ETEC 152, ETEC 169, MATE 100/101 or MATE 130 | | 3-7 | | |
| **Total Credit Hours Required** | | **63-68** | | |

# Welding

## Welding MIG Certificate (AWS modular certification)

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| MATH 103R | Technical Math I w/ review or higher | 3-4 | | MATH 20 or 20L or appropriate score on placement test for MATH 103R |
| WELD 110 | Welding Industry Fundamentals | 3 | | |
| WELD 120 | Thermal Cutting Processes Lecture | 1 | | WELD 110 |
| WELD 121 | Thermal Cutting Processes Lab | 2 | | WELD 120 or concurrent enrollment |
| WELD 130 | Print Reading & Weld S ymbols | 3 | | |
| WELD 150 | Gas Metal Arc Welding I (MIG) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 151 | Gas Metal Arc Welding I (MIG) Lab | 2 | | WELD 150 or concurrent enrollment |
| WELD 230 | Layout and Fabrication Lecture | 1 | | WELD 130 and one WELD 100 level lecture & lab |
| WELD 231 | Layout and Fabrication Lab | 2 | | WELD 230 and one WELD 100 level lecture & lab |
| WELD 270 | Flux Core Arc Welding Lecture | 1 | | WELD 151 or concurrent enrollment |
| WELD 271 | Flux Core Arc Welding Lab | 2 | | WELD 270 or concurrent enrollment |
| **Total Credit Hours Required** | | **22-23** | | |

## Welding MIG/TIG (AWS modular certification)

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| MATH 103R | Technical Math I w/ review or higher | 3-4 | | MATH 20 or 20L or appropriate score on placement test for MATH 103R |
| WELD 110 | Welding Industry Fundamentals | 3 | | |
| WELD 120 | Thermal Cutting Processes Lecture | 1 | | WELD 110 or concurrent enrollment |
| WELD 121 | Thermal Cutting Processes Lab | 2 | | WELD 120 or concurrent enrollment |
| WELD 130 | Print Reading & Weld Symbols | 3 | | |
| WELD 150 | Gas Metal Arc Welding I (MIG) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 151 | Gas Metal Arc Welding I (MIG) Lab | 2 | | WELD 150 or concurrent enrollment |
| WELD 160 | Gas Tungsten Arc Welding I (TIG) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 161 | Gas Tungsten Arc Welding I (TIG) Lab | 2 | | WELD 160 or concurrent enrollment |
| WELD 230 | Layout and Fabrication Lecture | 1 | | WELD 130 and one WELD 100 level lecture & lab |
| WELD 231 | Layout and Fabrication Lab | 2 | | WELD 230 and one WELD 100 level lecture & lab |
| **Total Credit Hours Required** | | **22-23** | | |

## Welding & Fabrication Certificate

| COLL 100 | First Year Seminar | 1 | | |
|---|---|---|---|---|
| **Specific Program Requirements** | | **Credits** | **Semester Taken** | **Prerequisites** |
| MATE 100<br>MATE 101<br>MATE 130 | Intro to Manufacturing Technology **and**<br>Machining & Tooling **or**<br>Machining for Related Occupations | 5-7 | | MATE 100 |
| MATH 103R | Technical Math I w/ Review or higher | 3-4 | | MATH 20 or 20L or appropriate score on placement test for MATH 103R |
| WELD 130 | Print Reading & Weld Symbols | 3 | | |
| WELD 150 | Gas Metal Arc Welding I (MIG) Lecture | 1 | | WELD 121 or concurrent enrollment |
| WELD 151 | Gas Metal Arc Welding I (MIG) Lab | 2 | | WELD 150 or concurrent enrollment |
| WELD 230 | Layout and Fabrication Lecture | 1 | | WELD 130 and one WELD 100 level lecture & lab |
| WELD 231 | Layout and Fabrication Lab | 2 | | WELD 230 and one WELD 100 level lecture & lab |
| **Total Credit Hours Required** | | **18-21** | | |

*Check us out.*

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