WATC

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Information Directory

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General Information $\qquad$ **316.677.9400**

E-Mail .... info@watc.edu

Fax 316.677.9555

Website .... www.watc.edu

Emergency Closing Hotline (also visit www.watc.edu) 316.677.9596

Grove Campus

301 S. Grove, Wichita, KS 67211-2099

General Information 316.677.9400

National Center for Aviation Training/Jabara

4004 N. Webb Road, Colonel James A. Jabara Airport, Wichita, KS 67226

General Information 316.677.9400

Academic Affairs 316.677.9560

Academic Success 316.677.9520

ADA Compliance Officer 316.677.9400

Admissions 316.677.9400

Administrative Offices 316.677.9400

Bursars Office 316.677.9511

Disability Services / Accommodation Requests 316.677.9520

Financial Aid 316.677.9520

Financial Services 316.677.9400

Human Resources 316.677.9471

Learner Services 316.677.9520

Online Learning 316.677.9400

Operations 316.677.9541

President's Office 316.677.9500

Professional Services 316.677.9471

Registrar 316.677.9400

Student Success Services 316.677.9520

Testing Services 316.677.9520

Southside Education Center

4501 E. 47th Street S., Wichita, KS 67210

General Information 316.677.1500

Academic Success 316.677.9492

Bookstore 316.677.9459

Bursars Office 316.677.1941

Library and Learning Resources 316.677.9459

Testing Services 316.677.9492

Workforce Education and Development 316.677.1404

WATC Locations and Directions

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www.watc.edu
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NATIONAL CENTER for AVIATION TRAINING
4004 N. Webb Rd.
Wichita, KS 67226

K-254
Kechi
N. Oliver
N. Woodlawn
N. Rock
N. Webb
E. 39th St. N.
E. 37th St. N.
Colonel James Jabara Airport
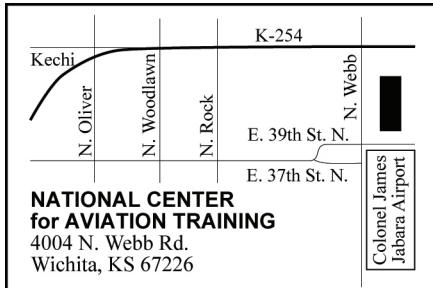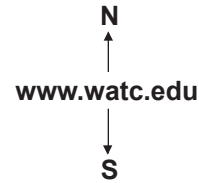
National Center for Aviation Training/Jabara Directions
- **Go north on I-135 to 96-E.**
- **Go east on 96-E and exit on Webb Road.**
- **Turn north onto Webb Road.**
- **Turn right after 39th Street North.**

GROVE CAMPUS
301 S. Grove
Wichita, KS 67211-2099
316.677.9400

Douglas
Hydraulic
I-135
Grove
Hillside
Kellogg
Lincoln
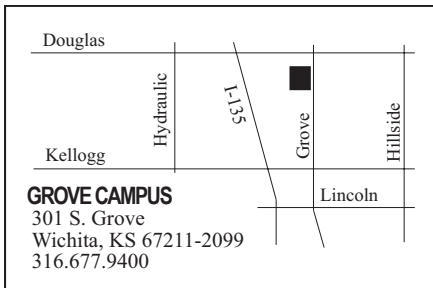
Grove Campus Directions
From the east:
- **Go west on Kellogg (US Hwy 54) to Grove exit.**
- **Go north on Grove approximately one block (west side of street).**
From the west:
- **Go east on Kellogg to Washington exit.**
- **Go north on Washington to Douglas.**
- **Go east on Douglas to Grove.**
- **Go south on Grove approximately two blocks (west side of street).**

STUDENT SERVICES ARE NOT AVAILABLE AT THE GROVE CAMPUS

SOUTHSIDE EDUCATION CENTER
4501 E. 47th St. South
Wichita, KS 67210-1651
316.677.1500

K-15
Oliver
47th
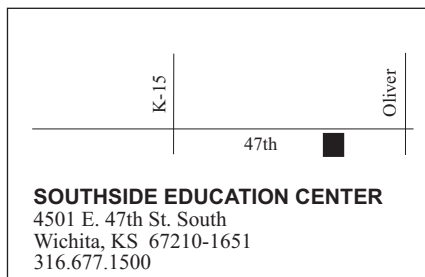
Southside Education Center Directions
- **Go south on I-135 / K-15.**
- **Take Exit 3A and merge onto K-15 S / Southeast Boulevard.**
- **Go southeast on K-15 / Southeast Boulevard to 47th St.**
- **Go east on 47th Street South (south side of street).**

President's Welcome

Wichita Area Technical College delivers a high-tech, high-wage and high-demand career pipeline for students!

Would you like to take general education classes and move on to a four-year college or university or seek specific career training? You can do all this, and more, at Wichita Area Technical College (WATC). The programs we offer can prepare you for a career in aviation, advanced manufacturing, health sciences, transportation, or design AND we can continue to provide you with training opportunities upon graduation as many employers pay for continuing education opportunities.

WATC is accredited by the Higher Learning Commission of the North Central Association, the same accrediting body that accredits many colleges and universities across the country, thus allowing you a quality education that opens doors of opportunity to further your education.

We know that you are here because you have goals, and our job is to help you reach those goals. What we offer as a college is unique – a mix of specialized technical programs, general education, and online courses, all provided through a flexible schedule and at an affordable cost.

We're here to provide you with high quality, relevant education – education that helps you move forward in your life of learning and to give your career lift.

Wishing you much success; your success is a measure of our success.

Get ready to "Give Your Career Lift",

Ray Frederick, President

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The College

Wichita Area Technical College

Wichita Area Technical College (WATC) has been delivering excellence in education since 1965. WATC continues to build on this tradition with quality instructors, talented students and state-of-the-art technical equipment. Together, these elements help create a hands-on learning environment that promotes participation and prepares students for further education and/or career experiences.

Mission, Vision and Values

Mission

The mission of Wichita Area Technical College is to provide quality higher education and leadership in workforce training that supports economic development for a global economy.

Vision

Wichita Area Technical College will be the leading provider of higher education, specializing in the delivery of career technical education, utilizing state-of-the-art facilities with highly qualified faculty, and offering a competitive advantage that drives economic development in the region.

Values

To achieve our vision and fulfill our mission, Wichita Area Technical College has embraced the following values:

- Accountability: WATC values the resources entrusted to it and will use them responsibly to support the college's mission.
- Quality: WATC values an environment of professionalism and excellence for students, faculty, and staff to learn and work.
- Innovation: WATC values cutting-edge technology and delivery methods to encourage lifelong learning within a rapidly changing society.
- Customer Service: WATC values its customers as it strives to exceed their expectations, while responding to the needs of its various consituents.
- Equity/Diversity: WATC values the diverse nature of its students, faculty and staff and seeks to treat each person with the utmost respect.

- Global Professional Standards: WATC values and practices behaviors that promote responsible, successful, and ethical students, employees and citizens.

Governance and Structure

Kansas Board of Regents

The Kansas Board of Regents (KBOR) is comprised of nine members who are appointed by the governor of Kansas and confirmed by the Kansas Senate. KBOR governs six state universities and supervises and coordinates 19 community colleges, six technical colleges and a municipal university. KBOR primarily deals with educational policies, programs, services, providers and other systems in an effort to improve and maintain the high quality of education in Kansas. KBOR also coordinates vital programs, such as adult literacy, qualified admissions, concurrent enrollment for high school students, financial assistance for education and many others. KBOR, in conjunction with the Kansas Postsecondary Technical Education Authority, approves technical programs offered by WATC.

Sedgwick County Technical Education and Training Authority

Sedgwick County Technical Education and Training Authority (SCTETA) is the governing board for WATC. The board consists of 11 appointed, voting members who establish and publish policies, regulations and procedures pertaining to WATC.

Industry Advocate Teams

Program advisory committees, representatives from business and industry, provide a very important link between WATC and the community. These teams validate learning outcomes deemed essential by business and industry for successful entry or advancement in specific occupations. These teams also monitor the curriculum, recommend instructional equipment and help keep the programs current with emerging technologies.

Accreditation

The Higher Learning Commission - North Central Association

The Higher Learning Commission (HLC) is part of the North Central Association (NCA) of Colleges and Schools. NCA is one of six regional institutional accreditors in the United States. Through its Commissions, it accredits and thereby grants membership to educational institutions in the North Central region.

Wichita Area Technical College is fully accredited by The Higher Learning Commission and a member of the North Central Association as of October 2008.

The Higher Learning Commission
30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
Phone: 800.621.7440 / 312.263.0456
Fax: 312.263.7462
www.ncahlc.org

Educational Programs

Students have many educational opportunities at WATC and are encouraged to select the program or course of study that best meets their needs. These education opportunities include general education courses and associate of applied science (AAS) degrees, technical certificates, certificates of completion and apprenticeship programs. Students may also opt to select courses that focus on particular technical skills instead of registering in a complete program.

Associate of Applied Science Degrees

AAS degree programs are designed to provide students with the knowledge and skills needed to enter the workforce, advance within their chosen careers or further their education. To be awarded the AAS degree, students must successfully complete a minimum of 60 credit hours — a combination of technical and general education hours. Although AAS degrees are designed to prepare students for employment, technical credits may transfer to other colleges or universities.

General education credits must include coursework completed in the areas listed below. The chief academic officer may approve alternative general education courses and acceptance of transfer credits or work experience.

WATC offers the following AAS programs that require general education courses:
- Administrative Office Technology
- Air Conditioning Technology
- Aerospace Coatings & Paint Technology
- Applies Science of Aviation Interiors
- Applied Science of Aviation Manufacturing
- Architectural Design Technology
- Automotive Service Technology
- Aviation Maintenance Technology
- Avionics Technology
- Business Administration
- Dental Assistant
- Electromechanical Systems *(Coming Fall 2011/2012)*
- Engineering Design Technology

- Entrepreneurship
- Industrial Systems Technology
- Interior Design
- Machining Technology
- Manufacturing Engineering Technology
- Medical Assistant
- Personal Training
- Surgical Technology
- Welding

General Education
Associate of Applied Science Degrees

WATC's philosophy and approach to general education promotes the appreciation for lifelong learning necessary to support the professional academic and personal success of students. Every degree program incorporates general education courses designed to prepare students with a foundation in computers, written and verbal communication, mathematics, natural sciences and social sciences. These themes are also integrated and applied through the core curriculum in WATC's technical certificate programs.

WATC provides general education courses required for its degree programs. These courses are taught with curricula that meet or exceed state core curriculum standards approved by KBOR and are taught by instructors with the appropriate credentials. WATC's general education courses that lead to the AAS degree are interspersed throughout the program with various instructional delivery methods that allow flexibility for student schedules.

WATC's technical coursework provides a knowledge base in the application of natural sciences and fosters a tendency to think using an analytical and problem-solution approach; however, what students learn in technical courses is not the only knowledge they need nor is it the only way of thinking. Students will encounter people in their professional and personal lives that will challenge them in other ways — politically, aesthetically, emotionally and morally. General education courses are designed to support and further students' comfort level in dealing with differing opinions and appreciating other ways of thinking.

Mission and Vision

WATC is committed to providing a general education core program that supports its technical educational programs and offers learners a cost-efficient way to earn general education requirements that are transferable to other educational institutions. Thus, in keeping with KBOR's goal for seamless and efficient

transfer, this core curriculum is based on a project initiated in 1999. KBOR's Kansas Core Outcomes Project was an initiative in which two- and four-year institutions collaborated to identify the core components and competencies of general education courses. The Kansas Core Outcomes Project meets annually, and these outcomes and competencies are reflected in WATC's general education core program to ensure that the general education courses articulate with other institutions of higher learning.

Mission

The mission of WATC's general education courses is to provide a framework of higher education that enables students to develop knowledge through learning and provides a foundation for success in the global economy.

To reinforce the general education content areas of Computers, Communications, Humanities, Mathematics, Natural Sciences and Social Sciences for WATC's AAS degrees, WATC believes that:

- Learners are at the center of curriculum strategies that incorporate clear goals and definable skills.
- The humanities content of the general education core is to provide opportunities for learners to critically explore broad areas of common knowledge, intellectual concepts and attitudes.
- The communications content of the general education core is to provide the skills needed to communicate clearly and effectively with technology and in personal and professional settings.
- The problem-solving content for the general education core is to provide a systematic approach to decision-making based on facts and data.
- The ethical content of the general education core is to provide a foundation for responsible roles in business and society.

Productive citizens need to communicate effectively, apply basic mathematical strategies, critically and creatively solve problems, interact in social settings and effectively utilize technology. Wichita Area Technical College (WATC) has established a set of general education learning outcomes to include these areas.

Upon graduating from WATC, students will be able to demonstrate these learning outcomes. These outcomes are integrated into the curricula of all programs and are reinforced in a variety of courses throughout the college.

Students will be able to demonstrate the ability to …

1. Communicate effectively by writing clearly, concisely and accurately in a variety of contexts and formats.
2. Communicate effectively by speaking clearly, concisely and accurately in a variety of contexts and formats.
3. Demonstrate mathematical skills utilizing quantitative problems and drawing conclusions within various contexts.
4. Identify, define and systematically analyze a problem from a global perspective.
5. Identify and express awareness, sensitivity and respect for self and the diverse needs of others within the community.
6. Demonstrate computer literacy by applying current technology within coursework and career fields.

Vision

WATC's general education core courses support the learning outcomes of its technical and AAS degree programs and are transferable to other institutions of higher learning. WATC continues to work with other institutions of higher learning to construct articulation agreements to allow WATC students the ability to matriculate to four-year institutions.

Technical Certificates

Technical certificate programs provide the knowledge and skills needed to enter the workforce. Students who wish to pursue an AAS degree may transfer most of these courses and credits to an AAS degree program at WATC.

Certificates of Completion

Certificate of Completion programs provide the knowledge and skills required in today's competitive and changing workforce. Programs vary in length from a few days to several months.

Academic Success

The Academic Success program assists students in mastering the necessary skills to progress with their college education. The instructional program includes test preparation courses for COMPASS™ and TEAS® assessments. Materials and tutorial assistance are available in the laboratory to help students improve their skills and ready themselves for entry into college-level coursework.

Academic Success staff members are committed to helping students succeed in technical programs and college-level courses and to helping them prepare for lifelong success.

Self-paced courses may be taken to prepare for placement exams, to refresh skills prior to taking college-level courses, or they may be taken along with other college courses as reinforcement.

Adult Literacy

Adult Literacy includes the Adult Basic Education (ABE), General Educational Development (GED) Test Preparation and English Speakers of Other Languages (ESOL) programs.

Adult Basic Education

ABE classes build skills that can lead to a high school diploma by passing the GED exams. These improved skills can also lead to better employment and United States citizenship.

ABE Eligibility

Individuals 16 years of age or older and who are not registered in high school may register in ABE classes. This includes high school and non-high school graduates.

ABE Registration

All applicants must take a Comprehensive Adult Student Assessment System (CASAS) assessment, which is a tool that is used to help the Adult Literacy staff select a program of study that is best for each student.

English for Speakers of Other Languages

ESOL classes help speakers of other languages increase their listening, speaking, reading and writing skills. These classes also help to improve skills needed for United States citizenship.

General Educational Development Test Preparation

There are five GED tests:
• Language Arts, Writing
• Language Arts, Reading
• Mathematics
• Science
• Social Studies

Students are required to pass Official GED Practice Tests administered through a state-approved adult literacy program or GED Testing Center to assure GED test readiness. Persons may not retest unless they have successfully completed a course of study to improve their scores and taken the Official GED Practice Tests again.

For students who need to improve skills prior to taking the Official GED Practice Tests, Adult Literacy offers classes, based on individuals' skill levels, that help them attain the skills needed to achieve their goals. Students study under the supervision and assistance of an instructor. Individual and group activities enhance their learning. Progress is assessed until students are ready for referral for GED testing.

GED Eligibility

ABE students are eligible to begin study and practice for the GED exams upon attaining a specified score on the CASAS assessment.

Workforce Education and Business Professional Development

Since 1965, WATC has established a working relationship with more than 375 local and area business partners. WATC has trained over 200,000 students to enter the job market, but gaining the skills and knowledge necessary to enter today's workforce is only the beginning. To meet the ever-changing and growing needs of business and industry, employees must continue their pursuit of the skills and knowledge needed to compete, become more productive, transfer knowledge and enjoy life. WATC strives to meet these needs through business partnerships, customized training, professional continuing education and personal enrichment courses.

Mission

The mission of Workforce Education and Business Professional Development is to ensure the resources of the college are available to and utilized by all sectors in south-central Kansas to meet the needs of industry, business and private citizens for technical skills, mandated continuing education and to develop lifelong learning habits.

Customized Training Solutions

Workforce Education and Business Professional Development encompasses all programs that are peripheral to ongoing, campus-based programs. WATC's customized training programs and courses are developed at the request of business, industry and private citizens and are designed specifically to meet their ever-changing and growing needs for technical skills and profession-mandated continuing education. Due to their unique nature, these programs and courses do not appear in the catalog.

Workforce Education and Business Professional Development provides:
• Customized training, technical assistance and other educational opportunities utilizing up-to-

date services and equipment — all customized to meet companies' needs and at times that fit their schedules.

- Courses that satisfy industry-specific professional continuing education requirements.
- Personal enrichment courses that afford individuals opportunities to expand their lifelong learning.
- Training delivered through traditional classroom settings at one of WATC's locations, hybrid, online or at the company's place of business.

To request information about customized training or technical assistance, call 316.677.1404 or 316.677.1891.

Competency-Based Education

Program courses are competency-based education (CBE). Program advisory committees, made up of representatives from business and industry, identified and validated the knowledge and skills needed by workers in different technical occupations. These knowledge and skill competencies then became the foundation for curriculum and are used to evaluate the progress of students.

Students may review these competencies before registration by asking an advisor or senior learning officer for a list. Instructors share the competencies with students on course syllabi during the first class session. At the end of each registration period, instructors rate student competency levels.

Advanced Standing Credit

Because CBE allows for rating skills and competencies, students have the opportunity to receive credit for previous education and/or work experience. Advanced standing is possible providing students are able to pass required written, oral and/or performance tests that indicate competency in particular units of instruction. Passing competency tests advances students to the next unit of instruction in the curriculum. Test-out is not an option in some laboratory courses.

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**Learner
Services**

Student Services

Admissions

Admissions Policy

Wichita Area Technical College (WATC) encourages all individuals who are interested in, and are capable of, extending their education beyond high school to apply. Admission to the college is open to the following individuals.

New Students

- High school graduates
- Persons holding a General Educational Development (GED) diploma

Prospective students need to complete the WATC Application for New Student Admission. Acceptance to the college does not guarantee acceptance into a specific program. Most programs have specific program entrance requirements (see Programs of Study).

Transfer Students

Prospective transfer students need to complete the WATC Application for New Student Admission. Transfer students seeking admission need to submit an official copy of their transcripts from other colleges attended.

Applicants for Health Sciences programs, whether new or transfer, must provide high school or GED transcripts.

High School Students

High school students may register for courses with the written approval of their parent/guardian and their high school counselor and must submit an official high school transcript. Students must document evidence of potential success at the college level. Contact Admissions, 316.677.9400, for more information about attending WATC while in high school.

Ability-to-Benefit Students

Students beyond compulsory school attendance age who have not earned a high school diploma or equivalent, are not committed to earning a high school diploma or equivalent and have the ability to benefit from the occupational education offered by the institution can apply for admission to WATC under ability to benefit. Students who attended a home school or an international high school and have not successfully completed 15 or more hours of credit from an accredited institution with a 2.0 grade point average (GPA) or higher are required to apply for admission under ability to benefit.

All ability-to-benefit students applying as technical certificate or degree-seeking students must demonstrate the ability to academically benefit from college courses. Ability-to-benefit students must take and pass the approved tests listed below with the minimum score indicated. Specific programs may have additional testing requirements. Students who do not meet this minimum standard are referred to WATC's Adult Literacy and/or Academic Success courses for academic remediation. Students must demonstrate their improved abilities and resubmit for admission to WATC.

Approved COMPASS™ Tests and Scores

- Reading   62
- Mathematics   25
- Writing   32

Returning Students

Students who have a break in registration for more than four semesters may reactivate their file by providing current information to the Admissions office. Students may be required to meet any new admission requirements for the college or program before readmission is granted.

Residency

Residency status is determined by procedures consistent with Kansas statutes. Generally, residency is determined by length of residence in the state and proof of intent to remain in the state. To be classified as a Kansas resident, a student must have lived in the state for a minimum of six (6) months prior to the first day of classes AND must produce three (3) of the following:

a. Receipt for purchase of Kansas license tags dated at least six (6) months prior to the first day of the term.

b. Receipt for payment of Kansas property taxes, dated at least six (6) months prior to the first day of the term.

c. Employment verification or payroll check stubs from a Kansas employer or school attendance at a Kansas community college commencing six (6) months prior to the first day of the term.

d. Copy of voter registration in the state of Kansas dated six (6) months prior to the first day of the term.

e. Copy of Kansas driver's license dated at least six

(6) months prior to the first day of the term.

f. Consecutive utility receipts and/or rent receipts for the six (6) months prior to the first day of the term.

g. Verification (must be notarized) from a Kansas resident that the student has resided with him/her/ them for at least six (6) months prior to the first day of the term.

The following persons and their spouses and dependents may be considered residents of the state of Kansas for tuition purposes:

a. Persons who are in active military service of the United States.

b. Persons who are domiciliary residents of the state, who were in active military service prior to becoming domiciliary residents of the state, who were present in the state for a period of not less than two years during their tenure in active military service, whose domiciliary residence was established in the state within 30 days of discharge, or who have retired from active military service under honorable conditions.

c. Persons who are full-time employees of a technical or community college and their dependents.

When enrolling, the student is responsible for indicating the proper residence classification for tuition and fee costs. Questions relating to residency should be directed to the Registrar's Office prior to enrollment.

Students who disagree with their classification as a non-resident for tuition and fee costs may file a written appeal within two weeks of the date of enrollment with the Registrar's Office. The payment of tuition as originally assessed shall be a condition of the right to appeal residency classification. Failure to file an appeal within the time and in the manner specified makes classification by the Registrar final.

Undocumented Non-U.S. Citizens

Undocumented non-U.S. citizens are eligible to apply for admission if they meet the following Kansas Board of Regents (KBOR) requirements:

1. Provide documentation that they attended an accredited Kansas high school for three or more years and graduated from an accredited Kansas high school or obtained a GED diploma in Kansas.
2. File an affidavit with WATC stating that they have filed an application to legalize their immigration status or filed for U.S. citizenship or that their parents have filed such an application.

Affidavits are available on WATC's website at www. watc.edu.

In addition to the above criteria, all international and non-U.S. citizens must fulfill all other college and program admission requirements before admission is granted. Undocumented, non-U.S. citizens are not eligible for federal financial aid.

International Student Status

WATC has been approved to host international students who hold either F-1 or M-1 visas. Requirements for issuance of an I-20AB include:

1. Completed International Student Application for Admission. There is no fee for application to the college.

2. Proof of graduation from an accredited high school or the equivalent. All foreign transcripts must include English translations.

3. Proof of sufficient funds to cover all expenses students will incur while attending the college. Expenses may include tuition, fees, materials, room and board, travel and miscellaneous personal expenses. All applicants must submit a notarized Affidavit of Sponsor complete with raised seal of verification from the sponsor's bank. The sponsor, whose signature appears on the affidavit, is agreeing by their signature to provide adequate funds to pay any expenses as listed above in full by the first day of classes for each subsequent semester. If the sponsor fails to provide promised funds, students are unable to enroll and reported to the United States Citizenship and Immigration Services as out-of-status.

4. Proficiency in the English language must be proven in one of the following ways:

   a. Offical copy of TOEFL scores with a minimum score of 500 paper-based or 183 computer-based. Offical TOEFL scores must be presented to the international advisor before the I-20 can be issued.

   b. Completion of the senior year from an accredited high school within the United States. The student must receive a 2.5 or higher cumulative GPA for all coursework.

5. Upon arrival, students must complete all necessary testing and placement procedures for the individual program of study to which they are applying.

6. Proof of current international health insurance policy must be submitted upon arrival to the international advisor.

An I-20AB is mailed to the student's home country

upon acceptance to WATC along with receipt of proof of appropriate resources as listed above. Students must take the I-20AB to the American Embassy in their country to apply for an F-1 or M-1 visa.

The following must be presented to the WATC's international advisor upone arrival or enrollment:

- I-20
- I-94 Departure Record
- Passport
- Payment of tuition and fees

International Transfer Students

International students who transfer to WATC from another college within the United States are required to complete Steps 1 through 4 as listed above. International students who have completed College English Composition I with a grade of C or better are not required to submit documentation for Step 4 listed above in regard to proficiency in the English language. WATC's international advisor must also receive a completed International Student Transfer form. This form can be obtained from WATC's Admissions office.

International Guest Students

WATC also admits students who are currently holding an I-20AB from another school. Requirements for attendance at WATC are as follows:

1. Application for New Student Admission. There is no fee for application to the college.
2. A guest letter must be secured from the institution holding the student's I-20AB and submitted to WATC's international advisor at the time of enrollment. The letter must include how many credits hours the student plans to enroll in and the term in which the student plans to attend WATC.
3. An official copy of the student's class schedule must be provided to WATC's international advisor showing proof of minimum full-time enrollment at the student's host school.

Transcript Requirement

Official transcripts must be mailed directly from the issuing institution. Transcripts must be in a sealed envelope upon receipt and may not be stamped "student copy." Transcripts must be mailed directly to:

Wichita Area Technical College
Registrar
4004 N. Webb Rd.
Wichita, KS 67226

Admission Assessments

Most programs have admission requirements, including specific assessments on which applicants must meet minimum scores. A student identification number is required to take assessments. Students may take most assessments at the National Center for Aviation Training (NCAT) or at the Southside Education Center.

General Education Admission Assessments

The ACT® COMPASS/ESL™ is required for placement in general education courses. Contact Admissions, 316.677.9400, for additional information.

Advisement

WATC academic/program advisors assist students with course selection, scheduling and meeting program requirements. Advisement usually precedes registration for WATC programs.

Advisors are available to assist with:
• Course and program information.
• Student orientation.
• General financial aid information.
• Career and job counseling.
• Personal counseling referral.
• Agency referrals.

Financial Aid

Purpose of Financial Aid

The financial aid program assists students who want to attend WATC but who would find it difficult to do so without assistance. WATC's financial aid program combines grants, loans and scholarships for students who meet certain eligibility requirements. To receive federal financial aid, students must be registered, or accepted for registration, as a regular student in an eligible program and must meet all admission criteria.

Eligibility Requirements

Before federal financial aid can be awarded, students must:

1. Be admitted as a regular student at WATC.
2. Be a United States citizen or eligible noncitizen.
3. Be registered as a regular student in an eligible program.
4. Have a high school or GED diploma.
5. Have resolved any drug conviction issues.
6. Make satisfactory academic progress.

Financial Aid Regulations

The following regulations govern the awarding and disbursing of all financial aid:

1. Students must complete the Free Application for Federal Student Aid (FAFSA) for the Federal Pell Grant and loans.

2. Students must provide signed copies of their income tax returns and W-2 forms when requested.

3. The Financial Aid office must adjust the Federal Pell Grant and loans for students who withdraw or drop to less than full-time status during a registration period. Awards are adjusted according to the college's cancellation and refund policies.

4. Students who receive financial aid must maintain satisfactory academic progress (see Satisfactory Academic Progress). Satisfactory academic progress is checked at the end of each semester, including the summer session.

Applying for Federal Financial Aid

Students must apply each academic year for federal funds. The FAFSA is the application for the Federal Pell Grant, all student loans and certain other programs. The information provided is processed through the formula adopted by Congress to determine financial need. The formula takes into consideration the number and age of family members in the household, the number of college students, income and assets reported on the application. FAFSA results are communicated as estimated family contribution (EFC). This number determines eligibility for the Federal Pell Grant and subsidized loans.

A certain number of applications are selected by the processing center for verification each year. If selected for verification, students are required to bring completed and signed copies of their income tax returns, W-2 forms, verification worksheets and any other forms requested to the Financial Aid office — parents' forms may also be required. All documents must be brought together — incomplete files are not accepted. Income information is verified, and the results are resubmitted to the processing center. Students are expected to respond in a timely manner to requests for additional documents. Failure to respond to requests may result in a significant delay in the award process.

Course Load

The number of credit hours that students are registered in each semester (fall, spring and summer) impacts financial aid eligibility.

Credit Hours and Student Status

Per Semester	Student Status
12 or more credit hours	Full-time
9 to 11.9 credit hours	Three-quarter-time
6 to 8.9 credit hours	Half-time
5.9 or fewer credit hours	Less than half-time

Cumulative Credit and Student Status

Less than 30 credits	First year/freshman
30 to 60 credits	Second year/sophomore

Federal Pell Grant

The Federal Pell Grant is a federally funded program that provides financial assistance to students who demonstrate financial need. The grant does not have to be repaid unless students fail to complete the courses for which aid was received.

Federal Supplemental Educational Opportunity Grant (FSEOG)

The FSEOG program is a grant program that provides assistance to needy undergraduate students. Priority in awarding FSEOG funds is given to students who have exceptional financial need and are Federal Pell Grant recipients.

Federal Academic Competitiveness Grant

The Academic Competitiveness Grant (ACG) is a federally funded program reserved for first- or second-year students who are registered in two-year associate degree programs. To receive this grant, students must have passed a rigorous course of study during high school as defined by the federal government. To receive ACG funds, students must also be receiving a Pell grant and be registered full-time in at least 12 credit hours. This grant does not have to be repaid unless students fail to complete the courses for which aid was received. The Financial Aid office determines whether or not students meet eligibility requirements.

Federal Work Study (FWS)

The FWS program is a federally funded employment program that provides paid jobs for students with financial need.

Loans

A loan is borrowed money that must be repaid with interest.

Federal Direct Student Loans

Recipients of federal student loans are under full obligation to repay loans. Requirements for loans include completing the FAFSA and registering in at

least six hours (half-time) per semester.

Before Accepting a Loan

WATC requires all students who are borrowing for the first time at WATC to complete an entrance counseling session. This session provides information that students need to know before accepting loans. It also includes students' rights and responsibilities as borrowers of federal funds and an overview of repayment information.

Loan Disbursement

All loans must be disbursed in at least two equal payments, usually once each semester. In the case of a single-semester loan, half of the loan amount is disbursed at the beginning of the semester; the second half of the loan amount is disbursed after the midpoint of the semester. There are no exceptions to this rule.

Before Leaving School

All student loan borrowers are required to complete an exit counseling session before graduation or at the time of withdrawal. The session provides information about the rights and responsibilities of the borrower, the anticipated date that repayment will begin, to whom and where to make payments and an estimated payment amount. Students who plan to leave WATC should contact Financial Aid, 316.677.9400, for specific information.

Federal Subsidized Direct Loans

Subsidized loans are for students who demonstrate financial need. The federal government pays the interest for students while they are registered at least half-time and during the six-month grace period after graduation. Repayment begins six months from graduation or the last date of attendance.

Federal Unsubsidized Direct Loans

Unsubsidized loans are available to students who do not demonstrate financial need. Students may pay interest either quarterly during the period of registration or at the time of repayment. Additional unsubsidized loans are also available to independent students (determined by federal guidelines on the FAFSA) or to students whose parents have been denied a Federal Parent Loans for Undergraduate Students (PLUS) loan. Repayment begins six months after graduation or the last date of attendance.

Federal Parent Loans for Undergraduate Students

Federal Parent Loans for Undergraduate Students (PLUS) loans are available to parents of dependent students who are registered at least half-time and need additional resources. Only parents (as defined on the FAFSA) are eligible to apply for this loan.

Repaying the Loans

After students graduate, leave school or drop below half-time status, there is a six-month grace period before loans are due for repayment. The amount of the loan payment depends on the size of the debt and the time it takes to repay the loan.

Scholarships

Scholarships are available that are not based solely on financial need. These scholarships are usually made possible by private donations to the college and are awarded to students in recognition of academic achievements or work experience. Several scholarships are available to students at WATC. A complete list of available scholarships and eligibility requirements is available through the Financial Aid office.

Other Resources for Financial Aid

The following resources may have funds available for qualified students. Eligibility is determined by the organization. Contact the organization for eligibility requirements:

- Bureau of Indian Affairs (BIA)
- Department of Veterans Affairs
- Kansas Department of Human Resources
- SER Corporation
- Social and Rehabilitation Services
- Vocational and Rehabilitation Services
- Workforce Development Office
- Workforce Investment Act (WIA)
- Employer-sponsored programs
- Private and institutional scholarships

Transferring to Another College

Students who plan to transfer to another college or to WATC during the year must add the new college's code to the Student Aid Report (SAR). Students should contact either college's financial aid office for information on how to do this. WATC's code for the FAFSA is 005498.

Satisfactory Academic Progress

Students must meet the following requirements to maintain eligibility for federal student aid:

1. Maintain a 2.0 GPA. The overall GPA is cumulative and includes all periods of registration.
2. Successfully complete at least 67 percent of the credit hours in which they registered for the semester.
3. Complete program within 150 percent of the published length of the program measured in credit hours attempted, which includes, if applicable, transfer credits that apply toward the student's program of study and all other credits taken at

WATC.

Grades of A, B, C, D and F are counted in determining the cumulative GPA. Grades of I, U, S and W are not counted in determining the overall GPA. However, these grades and hours count in determining the percentage of successfully completed hours. Satisfactory progress is checked at the end of each semester, including the summer session.

Students who fall below a 2.0 GPA on accumulated coursework are referred for advisement. Students are notified of this status by mail. Students may not be recommended for readmission if justification for continued registration is not shown.

Students are encouraged to visit regularly with their advisors and instructors regarding grades and academic standing.

Financial Aid Probation

Students who are receiving federal and state financial aid and do not meet the satisfactory academic progress requirements are placed on financial aid probation for the following academic semester. Students have the following semester, or next registration period they attend, to meet the satisfactory progress requirements. Students who are on financial aid probation due to incomplete grades are removed from probation when all other requirements are met, the course is completed and grades are turned in to the registrar. Students are notified in writing of their financial aid status at their recorded address.

If satisfactory academic progress is not regained within the next term of registration, students are placed on financial aid suspension.

Financial Aid Suspension

Students who are on financial aid probation and do not make satisfactory academic progress, and students exceeding the maximum amount of time allowed to complete a program, are placed on financial aid suspension. Students who are on financial aid suspension are not eligible to receive financial aid until satisfactory progress is demonstrated. Students are notified in writing of their financial aid status at their most recent address.

Appeals Process

Students who are placed on financial aid suspension and feel they have exceptional circumstances may appeal in writing to the Financial Aid office with the appropriate documentation. Appeals must be received within 30 days of the date the notification of suspension was issued. Hearings are then scheduled with the Financial Aid Review Committee. The committee reviews appeal requests and makes decisions based on the documentation and circumstances surrounding requests. Students are notified in writing of decisions. The review committee's decisions are final.

Regaining Financial Aid Eligibility

Students who lose federal financial aid eligibility for not making satisfactory progress regain eligibility when the registrar determines that satisfactory progress requirements have once again been met.

Once students demonstrate satisfactory academic progress, they are reinstated as eligible recipients and placed on financial aid probation for subsequent terms.

Students may be paid for a registration period in which satisfactory progress is regained, but cannot be paid for any payment period in which the requirements were not met.

Return of Title IV Funds Policy

Students who have received any financial aid and are considering withdrawing from courses at WATC should contact the Financial Aid office, 316.677.9400, to complete the required paperwork.

If tuition and other costs were paid with financial aid dollars (federal grants and/or loans), then all or a portion of the student's refund must be returned to the student aid program(s) from which the money was awarded. Students who received cash disbursements to assist with living expenses and then withdraw, drop out or are expelled may be required to repay some or all of the money.

Students who withdraw from all courses before 60 percent of the semester or registration period has passed must repay all or a portion of the federal financial assistance received. This means that students are not entitled to 100 percent of their federal grants and/or loans until 60 percent (about 11 weeks of an 18-week semester) of the registration period has been completed. This policy applies only if students completely terminate registration from every course, cancel registration, withdraw or are dismissed.

Students are required to return the difference between the amount of unearned aid and the amount returned by the college. Students are responsible for any amount due the college that results from the return of Title IV funds that were used to cover college charges, such as tuition, tools, books, uniforms or materials.

Any federal grant money that students have to repay is considered a federal overpayment. Students must either repay that amount in full or make satisfactory arrangements with the United States Department of Education to repay the amount. Students must repay, or make repayment arrangements, within 45 days of the date they are notified of the overpayment or they

lose further eligibility for all federal aid for attendance at any college until the debt has been paid in full. To make repayment arrangements, contact the U.S. Department of Education, Debt Collection Services, 1.800.621.3115.

Registration

Students may register for courses either by appointment or on a walk-in basis. Advisors will verify that any course or program prerequisites have been met before registering the student. A $10 non-refundable registration fee is applied once each semester.

Online Registration

Current students may register for general education courses through Firefly. Registration in program courses is not available online. Please see a career planner for enrollment in program courses.

Add, Drop and Withdrawal Process

Once students have completed registration, schedule changes may be made within the add/drop periods outlined below by contacting an advisor. General education courses may be dropped or added online through Firefly; however, a student may not completely withdraw from courses through Firefly. No fee is assessed for the process of adding or dropping a course.

Courses dropped prior to the published 20th day of classes for a given term (or 25 percent of class meetings for nonstandard terms) are not recorded on the student's transcript. For financial aid purposes, the withdrawal date is always the last date of attendance as determined by the institution from its attendance records. Students who do not officially drop/withdraw from a course will receive an F.

Adding Courses

Students may add a course or courses according to the following schedule:

- Short-term course/programs: No adds after class begins
- Eight to 16-week technical courses: May add through the second day of class with instructor approval
- Eight-week general education/transfer courses: May add up to three business days after start of class.
- 16-week general education/transfer courses: May add up to five business days after start of class.

Adding/Dropping Concurrently

Students who concurrently drop and add the same number of credit hours in a simultaneous transaction may incur additional charges or receive refunds. See the Institutional Refund Policy.

Complete Withdrawal

Students who are considering withdrawing completely from a program must contact the registrar, an advisor, or senior learning officer and instructors. Students on financial aid should check with the financial aid office regarding the impact of the withdrawal on their financial aid eligibility and status. In some cases, students on financial aid may have to repay funds if they withdraw from courses.

Administrative Withdrawal

WATC may elect to initiate an administrative withdrawal to withdraw students from all courses for any of the following reasons:

1. Student fails to provide documentation required by WATC for full admission status.
2. Student fails to meet WATC's basic standards for academic performance and/or progress.
3. Student violates attendance expectations.
4. Student fails to make payment of tuition and/or fees in the manner, amount and at the time agreed on between student and WATC's Financial Services office. This includes failure to provide documentation requested to complete the student's financial aid file.

Should WATC elect to initiate an administrative withdrawal, written notification is sent to the student. Students have five business days to appeal an administrative withdrawal. The completion of an administrative withdrawal does not relieve students of their financial obligations to WATC. All charges that are unpaid by students at the time of an administrative withdrawal become immediately due and payable. Refunds are issued and credits are applied in accordance with WATC's published refund policy.

Course Cancellation
Insufficient Registration/Class Size Limitations

Courses have specific minimum or maximum registration numbers. If it becomes necessary to cancel courses due to insufficient registration, all tuition and fees are refundable for courses that are cancelled. WATC reserves the right to cancel or postpone courses regardless of the advertised starting date. Registration for most programs is on a first-come, first-served basis.

Registrar
Privacy Policy

WATC complies with the Family Educational Rights and Privacy Act of 1974 (FERPA) and affords students certain rights with respect to their educational records. This act was designed to protect the privacy of educational records, to establish a student's right to inspect and review their educational records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. See board policies LS 4.0 Construction and Maintenance of Educational Student Records and LS 5.0 Privacy of Student Records.

Student Records

In accordance with FERPA, WATC requires that students who want WATC to release copies of grades, transcripts or any other information relative to academic performance to parents, guardians, bill-payers, prospective employers or governmental agencies must give WATC permission to do so. All requests to secure or release these types of information must be accompanied by a written authorization signed by the student. Without such authorization, WATC does not release this information. This policy extends and applies to parents who request access to and disclosure of their student's educational records. Student records are never released without written consent except to WATC faculty and staff who demonstrate a clear need to know. Other exceptions to this policy include compliance with a judicial order or an emergency involving the health or safety of students or other persons.

Upon request, students may inspect and review their educational records. Students also have the right to request a hearing with vice president, Academic Affairs and Learner Services, to challenge the accuracy of their records. See Privacy Policy for additional information. Consent to Release Nondirectory Information forms may be obtained from the registrar or online at www.watc.edu.

Directory Information

Unless specifically requested by the student to not disclose the information listed below, WATC may disclose such information at its discretion for any purpose. WATC designates the following student information as public or directory information:

- Name
- Dates of attendance
- Classification
- Major/degree program of study
- Awards
- Honors
- Degrees conferred, including dates
- Past and present participation in officially recognized activities

Currently registered students, or any who have previously attended WATC, may inspect their academic records by submitting an official written request to the registrar. Students must schedule an appointment with the registrar to inspect their records.

Students may challenge possible inaccuracies or misleading items in their records during the course of such an inspection — the fairness of a grade may not be challenged under this provision. Students also have the right to file a complaint with the United States Department of Education over alleged failures by WATC to comply with FERPA requirements.

Students are notified each year of their rights under FERPA through the catalog and student handbook. Additional information regarding student records and FERPA may be obtained from the registrar.

Student Rights Regarding Personal Information

Students who are asked to supply private or confidential information are to be informed of the following according to the Federal Protection of Pupil Rights Amendment (PPRA), as amended:

"Student social security numbers are personal information. Section 7 of the FERPA of 1974, Pub L. No. 93-579, provides that it shall be unlawful for any federal, state or local government agency to deny any individual any right, benefit or privilege provided by law because of such individual's refusal to disclose his social security account number. Any federal, state or local government agency that requests an individual to disclose his social security account number shall inform that individual whether that disclosure is mandatory or voluntary, by what statutory or other authority such number is solicited and what uses will be made of it."

- The purpose and intended use of the information.
- Whether they may refuse, or are legally required, to supply the requested information.
- Any known consequences arising from supplying, or refusing to supply, private or confidential information.
- The identity of other persons or entities authorized by state or federal law to receive the information.
- Upon request, students must be told whether WATC maintains information on them and the classification of that information — this includes

confidential information.

- Students have the right to review all private or public information on them without charge.
- Students have the right to receive copies of private or public information about them. WATC may charge a fee to cover actual costs for providing the copies.
- Students may contest the accuracy or completeness of public or private information by submitting a written complaint to the registrar. WATC has 30 days to either correct the information found to be in error or to notify the student that it believes the information is correct. If the information is found to be incorrect, WATC will attempt to notify past recipients of the information. Students may appeal WATC's adverse determination.
- The permission or consent required of parents and the rights accorded to parents by statute or law are required for and accorded to students.

Course Load

Credit Hours and Student Status

Per Semester | *Student Status*
12 or more credit hours | Full-time
9 to 11.9 credit hours | Three-quarter-time
6 to 8.9 credit hours | Half-time
5.9 or fewer credit hours | Less than half-time

Cumulative Credit and Student Status

Less than 30 credits | First year/freshman
30 to 60 credits | Second year/sophomore

Registration Information

Change of Major

Students who wish to change their major or program of study or update other information should complete the proper form and submit it to the registrar.

Information Update

To update other student information, such as a name or address change, students should complete a Student Record Change form and submit it to the registrar. To process a name change, documentation such as a marriage license or driver's license is required. The information update form is available in administrative offices at all locations or online at www.watc.edu.

Registration

Once the WATC Application for New Student Admission and admission assessment scores are received, students are eligible to register. Some courses and programs may have prerequisites or additional requirements that must be met before students can register. Appointments are not required. Advisors are available to answer questions and assist with the registration process. Registration continues through the add/drop period, with the exception of courses that have already reached maximum capacity.

Students may not attend a class in which they are not officially enrolled. Students whose names do not appear on the course roster or who have other registration issues should immediately see an advisor.

Late Registration

See Add, Drop and Withdrawal Process.

Transfer of Credits to WATC

Coursework from an accredited institution and/or documented work experience or military training that fulfills course requirements for an AAS degree or technical certificate program may be considered for transfer credit. Credits earned prior to this time are evaluated on a course-by-course basis. Approved transfer credits are not included in the student's WATC career GPA, but the credit hours are applied to the program award requirements. Some WATC programs have transferable credit to other programs. Credit hours earned at WATC and transferred from one program to another are evaluated following the same guidelines and review process, and the credit is included in students' GPA.

WATC requires official transcripts, employment information and military records from each institution from which a student wants to transfer credit. Students are responsible for ensuring that transcripts or documents have been sent and are on file with the registrar. The registrar and/or appropriate department chair reviews and evaluates transfer of credit requests and informs students in writing as to the acceptability of the coursework or experience toward an AAS degree or technical certificate. Transfer credits must have been earned at an accredited institution. Equivalent coursework for which students have earned a letter grade of C or better is considered for transfer.

Credit by Examination

Students whose admission assessment score places them in a math or English course higher than the one required for their program have the following options:

- Complete the appropriate course indicated by the assessment score. Tuition and fees are assessed at the normal rate. If the course is completed with a grade of C or higher, it meets the program requirement.
- Complete the course required for the program. Tuition and fees are assessed at the normal rate.

Students must receive a grade of C or higher.

- Pay to receive credit for the course required for the program. Tuition is assessed and a grade of S (Satisfactory) is posted to the transcript upon payment of the tuition. (Courses with a grade of S may not be eligible for transfer at some institutions.)

Auditing Courses

Students who audit courses attend regularly but are not required to take exams or complete assignments. No credit is awarded for audited courses.

- All course prerequisites must be met or students must obtain instructor approval.
- Each division determines which courses are suitable for the audit option.
- A grade of X is recorded on the transcript. Under no circumstances may an audited course be changed to a course taken for credit, and courses registered for credit cannot be changed to audit. Students may register to audit courses if space is available. Registration dates for auditing courses follow the published add period for the semester.
- The registration form for audited courses must be signed by the appropriate senior learning officer. The completed and signed form should be returned to the registrar.
- Tuition and fees for audited courses are the same as those charged for credit courses. Tuition and fees are due at registration and may not be charged to students' accounts.
- Financial aid and scholarship monies may not be used to pay for audited courses.

Work Experience/Training

Work experience or military training considered for transfer must satisfy program course requirements. If accepted for transfer, the experience is converted to a justifiable number of credit hours and documented on the student's transcript. Letter grades are not assigned. A maximum of six credit hours is accepted by WATC for this purpose. Any exceptions are reviewed on an individual basis.

Transfer of Credits From WATC

WATC credits are eligible for transfer to other colleges and universities. To be assured of credit transferability, students should consult an admissions officer at the college to which they are transferring. WATC does not copy, forward or release transcript information received from another institution.

Attendance

Class attendance is a reliable predictor of future

performance as an employee, and WATC is dedicated to providing employability and technical skills. Punctual attendance in all scheduled classes is regarded as integral to all courses and is expected of all students. Students are also expected to maintain satisfactory progress in all courses in which they are registered. Because all coursework builds upon material sequentially presented in classes, WATC faculty members include attendance expectations in their course syllabi. Penalties for excessive absences may include reduction of grades and/or withdrawal from courses. Students are responsible for obtaining information presented during absences. WATC encourages all students to check with their instructors if they have any questions regarding program attendance expectations.

Grading System

Letter Grades

WATC issues letter grades to communicate students' level of achievement or competency. It is important to note the quality points and the meaning of each letter grade.

Letter Grade	Quality Points Per Credit Hour	Grade Description
A	4	Superior achievement (credit awarded)
B	3	Above average achievement (credit awarded)
C	2	Average achievement (credit awarded)
D	1	Below average achievement (credit awarded but may not satisfy graduation requirements)
F	0	Failing work (no credit awarded)
S	Not calculated	Satisfactory achievement (credit may be awarded)
U	Not calculated	Unsatisfactory achievement (no credit awarded)
W	Not calculated	Withdrawn
I	Not calculated	Incomplete
N	Not calculated	Grade not submitted
X	Not calculated	Audit (no credit awarded)

Grade Point Average

Semester and cumulative grade point averages (GPAs) are calculated and recorded on students' permanent transcripts at the end of each grading period. Semester GPAs are calculated by adding the quality points earned, which is the number of credits taken multiplied by the points awarded for each letter grade (A=4, B=3, C=2, D=1, F=0). This number is then divided by the credit hours attempted that semester. Cumulative GPAs are calculated the same way, but are a composite of all quality points earned and credit hours attempted at WATC. While transferred credits are added to transcripts, the grades for these hours are not included in calculating the WATC GPA.

Repeat courses included in GPA and credit hours earned have the letter 'I' in the far right column (indicating

"Included"). Course that are not included in GPA and credit hours earned have the letter 'E' in the far right column (indicating "Excluded"). The most recent grade replaces the original grade in the calculation of student's cumulative GPA. Questions about grades or GPAs should be directed to the registrar.

Work Ethics

WATC acknowledges the importance of good work ethics. The college awards a numerical grade for work ethics in technical programs. The grade is determined by evaluating ten work ethic traits including attendance, character, teamwork, appearance, attitude, productivity, organizational skills, communication, cooperation and respect:

- 3 Exceeds expectations
- 2 Acceptable
- 1 Needs improvement
- 0 Unacceptable

Incomplete Courses

Students who are unable to complete courses should contact their instructors regarding incomplete grades. At the instructor's discretion, students may be granted an extension of time to complete assigned work if they are in good standing (making a passing grade) and they enter into a contract with the instructor indicating what work must be completed and the time frame for completion. If granted, students receive an incomplete letter grade for the course, which is recorded as an I on the grade report and transcript.

All work for incomplete courses must be satisfactorily completed by the agreed upon deadline. The instructor then completes the appropriate documentation and submits it to the department chair for validation. The department chair then submits the validated documentation to the registrar. If a grade change is not requested by the designated deadline, the I automatically becomes an F or U.

Repeating Courses

Students are allowed to repeat failed or dropped courses. All course-related charges must be paid for repeated courses. Repeat courses are noted on transcripts with an 'I' after the letter grade for courses that are included in the GPA and credit hours earned. Courses that are excluded from GPA and credit hours earned are noted with an 'E' after the letter grade. Only the most recent grade earned, higher or lower, is used to calculate the GPA.

Grade Reports

Grade reports are accessed through the Firefly portal. Questions about grades should be directed to the registrar, an instructor or department chair.

Transcripts

Official transcripts, records for individual students, list the subjects studied, credits earned and grades received. A transcript fee must be paid before transcripts are provided to students or other institutions. Unofficial transcripts are available through the Firefly portal. Failure to meet financial obligations of any kind to WATC could result in a student's transcript being held until the obligation has been met. Contact the registrar for additional information.

Academic Standing

To graduate, students must maintain a minimum cumulative GPA of 2.0 on a 4.0 grading scale. Students who are registered in six or more credit hours and do not maintain a 2.0 cumulative GPA are placed on academic probation the following semester of registration. (Students who receive financial aid must meet additional criteria to meet satisfactory academic progress. See Financial Aid.)

At the close of each semester, students on academic probation are notified in writing of their status and the impact on their academic standing and future enrollment.

To register while on academic probation, students are required to:

- Meet with an advisor to understand the terms of academic probation and academic suspension.
- Complete a written action plan with an advisor. The action plan must have the approval of the appropriate department chair and include specific academic goals that facilitate achieving the required GPA, which may include meeting with the department chair or instructor to determine progress, as well as any additional actions or interventions deemed necessary.

If students' semester and cumulative GPAs meet the requirements for satisfactory academic progress at the conclusion of the probationary semester, students are no longer considered to be on academic probation. Students who do not meet satisfactory academic progress requirements are placed on academic suspension.

Students who are placed on academic suspension are not eligible to register for the next regular semester. After one semester of academic suspension, students may register under continued academic probation status until their GPA reaches 2.0.

Students who are placed on academic suspension at WATC may appeal to the Dean, Student Success.

Graduation Requirements

To be awarded an AAS degree, technical certificate

or certificate of completion, students must pass all required coursework, submit required transcripts for transfer credit and meet all academic, financial or other obligations required for their program of study. To be eligible for graduation, students must have an overall GPA of at least 2.0. WATC urges students to continuously monitor their educational progress. Prior to the final semester or registration period, students must meet with an advisor to ensure that all requirements will be finished prior to the anticipated graduation date.

Associate of Applied Science Degree Graduation Requirements

- A minimum of 60 semester credits with an overall GPA of 2.0 or higher. *
- A passing grade in all courses within the student's declared program of study. *
- At least 25 percent of credits must be earned at WATC.
- Recommendation for graduation by the registrar.

* Individual program requirements may vary.

Technical Certificate Graduation Requirements

- A minimum overall GPA of 2.0. *
- A passing grade in all courses within the student's declared program of study. *
- At least 25 percent of credits must be earned at WATC.
- Recommendation for graduation by the registrar.

* Individual program requirements may vary.

Certificate of Completion Requirements

- A passing grade in all courses within the student's declared program of study. *
- Recommendation for issuance of the certificate by the registrar.

* Individual program requirements may vary.

Graduation Application

All students in AAS degree or technical certificate programs of study must formally notify the registrar of their intent to graduate by completing an Application for Graduation — even if they do not choose to participate in the commencement ceremony. This form should be completed at the time of enrollment for the student's final semester. There is a $25 graduation fee which is assessed to the student's account. The registrar performs degree checks upon completion of the student's final semester.

Commencement Ceremonies

At the conclusion of the spring semester, all students completing AAS degree or technical certificate programs are honored at a commencement ceremony. Individual locations may also hold ceremonies throughout the year to recognize students who complete AAS degree, technical certificate or certificate of completion programs.

Career Services

Career Services offers several services to all WATC students and alumni to assist them in securing relevant employment after graduation.

College Central Network, Inc.

WATC partners with College Central Network, Inc. (CCN), an online job and résumé board. This service is available to current students, alumni and employers. To use the system, students, alumni and employers must register online at www.collegecentral.com/watc. Weekly e-mails are sent to all students and faculty updating them with new job opportunities on CCN.

Job Boards

All WATC locations have job boards where available employment opportunities are posted. The job boards are updated and new jobs are posted weekly. Jobs that are specific to a program are also sent to instructors for announcement in classrooms. Senior learning officers and faculty are also notified of job openings that pertain to their divisions.

Career Placement Study

WATC conducts a career placement follow-up study each year to determine the employment status of WATC graduates. Follow-up results are available from Career Services, administrative offices at all locations, or online at www.watc.edu. WATC provides career placement assistance to all WATC graduates; however, career or job placement cannot be guaranteed.

References and Letters of Recommendation

To request a letter of recommendation or reference from a WATC faculty member, students must complete, sign and date a Student Reference Request form. Students are responsible for submitting the original completed form to the registrar and a copy of the form to the faculty member before a recommendation is given.

Financial Services

Costs for Academic Year 2010-2011

Tuition and Fees

Kansas resident tuition for general education courses starting between July 1, 2010, and June 30, 2011 is $60 per credit hour. Tuition for technical programs varies from $60 to $156.88 per credit hour. Tuition for Kansas nonresidents and out-of-state students is an additional 20% of the in-state tuition rate, and tuition for international students is an additional 30% of the in-state tuition rate. Fees are $27 per credit hour. Lab fees are additional and vary according to the course. Rates are subject to change without advance notice.

Registration Fee
Per semester..$10

Graduation Fee
Per certificate or degree awarded...........................$25

Transcript Fee
Per transcript requested...$8

Returned Check Fee
Nonrefundable for insufficient check....................$30

Textbooks, Materials, Tools and Supplies

Students are responsible for purchasing textbooks, materials, tools, uniforms and other costs that are charged separately. Costs differ from course to course.

Payment

Payment for classes is due two weeks prior to the start of the semester. The payment due date for each semester is published on the website and printed on statements. Students who have not paid or made arrangements for repayment through the Business Office or Financial Aid Office by the payment due date will be dropped from their courses. Students whose courses have been dropped may re-enroll if courses are still available and payment arrangements are made at the time of enrollment.

- Students may obtain class schedules and make payments at the National Center for Aviation Training and the Southside Education Center. Class schedules and online payment are also available on Firefly, the WATC student portal.
- To mail payments, students should send check or money order with full name and program to:

Wichita Area Technical College
Bursar's Office

4004 N Webb Rd, Wichita KS 67226

You may pay your account balance online at www.watc.edu by logging in to your student portal via Firefly, accessing your account from the student tab and following the links at the bottom of your account summary. You may pay using your credit card (MasterCard and Visa) or electronic check. If you have questions regarding online payments, please contact our Bursar's Office at 316-677-9511.

WATC Payment Plan

Wichita Area Technical College offers a payment plan as an option. The WATC payment plan allows students to pay for tuition, student fees and lab fees in monthly installments when enrolled in programs for fall, spring and/or summer.

No interest or finance charges are assessed, but a down payment is due at the time of application for the payment plan, plus a non-refundable enrollment fee of $30. WATC accepts cash, check, money orders, MasterCard and Visa. The remaining balance will be divided into monthly payments, due on the first day of each month.

Note: Certificates and degrees will not be awarded until payment is made in full.

What Students Need to Know About the WATC Payment Plan:

- Students are responsible for the full amount of tuition, fees, materials and other charges on their account that are deferred unless they officially drop and/or withdraw within the refund period (see catalog, student handbook or the Web site).
- Failure to attend classes or lack of attendance does not constitute an official drop. Students are still responsible for the full amount of tuition and fees.
- Any financial aid (Pell grant, scholarships, student and/or parent loans, etc.) that is subsequently awarded will be applied toward any remaining deferred amount before students receive any financial aid proceeds.
- Courses added after a payment plan has been implemented will require set up of an additional payment plan, including $30 fee.
- A nonrefundable $30 enrollment fee and a required down payment (25 or 50 percent, depending on when enrolled) is due at the time of application for the payment plan.
- Final payments are due prior to the last day of the class in that semester.
- For any changes, students must contact WATC's Bursar's office

Students may not be able to register for classes if there are any outstanding balances on their accounts.

Accounts may be turned over to collections if not paid.

Financial Obligation

Failure to meet financial obligations of any kind to WATC could subject a student's account to suspension of future services; referral of the delinquent account to a collection agency; and the assessment of additional late payment charges, transcript holds, attorney's fees and other cost and charges necessary for the collection of any amount not paid when due.

Deferment Plan for Employer Reimbursement: Students who are eligible for tuition reimbursement funds from their employers may apply for a loan, which authorizes deferment of tuition payment. A formal agreement must be signed by the student and approved by the Bursar's office before the deferred payment arrangement becomes effective. Students who arrange to defer payment of their educational costs while awaiting employer reimbursement must understand that these educational costs have not been waived. Students remain personally liable for repayment of the loan in the event that the indicated person, company or agency fails to pay for any part of the full amount of these charges within the allowable time. Failure to pay in full within the terms of the deferment agreement (within 45 days of the last scheduled day of class) constitutes default (see Default) and may result in denial of deferment loans for subsequent courses or terms in addition to required collection activity. Students who are interested in the Deferment Plan for Employer Reimbursement should contact the Bursar's office for more information regarding this payment option. The deferral needs to be arranged and required documentation received by the Bursars office prior to the first day of classes.

Direct Billing: Students who are employed by a company or have a third-party agency paying for some or all of their educational costs should contact the Bursar's office for information regarding the direct billing process between WATC and the student's employer or agency. The Bursar's office must have an agreement from the employer or agency on file before any company or agency can be billed directly for students' educational costs. Students who arrange to pay their account by means of a direct-billing process between WATC and their employer or agency must understand that these educational costs have not been waived. Students remain personally liable for payment in the event that the indicated person, company or agency fails to pay for any part of the full amount of these charges.

Special Payment Arrangements: Students who wish to pay for their tuition and fees with an individualized payment plan should contact the Bursar's office and request an appointment to discuss payment

options. Once a payment plan has been designed that is acceptable to the Bursar's office and viable for the student, the student is required to sign a written agreement or promissory note.

Student Loans and Grants: Students who wish to pay for their educational costs with federally sponsored student loans and/or grants must complete the application process in the Financial Aid office. Proceeds from Federal Stafford Loans (subsidized and unsubsidized), PLUS loans and grants are not disbursed until students are fully enrolled and classes have begun. See the Financial Aid section in the catalog or contact the Financial Aid office for further information regarding disbursement dates to students' accounts. An amount equal to the charges to be incurred for all tuition, fees and other educational costs during the designated loan or grant period is withheld from funds received from student loans or grants. Any overpayment generated by student loan or grant payments is automatically returned to the student (see Credit Balance Refunds for details).

Students who initially arrange payment for their educational costs by means of federally sponsored student loans or other forms of financial aid are held personally responsible for immediate payment in full should any or all of the anticipated loans and/ or financial aid not transpire. Decisions to reduce or eliminate student loans, changes in enrollment, and/ or any changes in financial aid eligibility must be discussed immediately with the Bursar's office to arrange acceptable alternative payment arrangements.

Nature of Credit: The credit that is granted to students by WATC for any of the above extended payment arrangements is entirely for educational purposes and is considered an educational loan. As such, this loan may not be dischargeable in bankruptcy.

Monthly Statements: If students have a balance due on their account, WATC sends them a monthly statement regardless of which payment arrangement they have chosen. It indicates the current balance and lists all charges, payments and adjustments that have been made to the account during the month.

Change of Address: To facilitate accurate record keeping, it is necessary to keep the college apprised of current name, address and social security information. Change of Address forms are available in the Registrar's office. This form should be completed and returned to WATC's Registrar's office immediately upon any address change. Change of address notification may also be handled by written correspondence.

Cashier Services: Payments to WATC for any purpose may be paid by personal check, cash (or equivalent), VISA or MasterCard. A fee in the amount of $30 is

assessed for each check that is returned by WATC's bank and not paid for any reason. If a check returned for non-sufficient funds was intended as a payment on account, it is considered as a non-payment. Students who present checks in payment for any services or merchandise at WATC, which is subsequently returned unpaid by the bank, may be denied check-writing privileges. In addition, a service hold is placed on the student's account until the outstanding bad check and fee have been paid in full.

WATC's Bursar's offices are located at the National Center for Aviation Training/Jabara and Southside Education Center. For your protection, WATC reserves the right to request positive photo identification when any financial services are requested.

Financing Alternatives: When possible, students are encouraged to seek alternative funding sources such as corporate education assistance, external scholarships and private educational loans. Students or parents should contact their lending institutions for other possible sources of financing. Many commercial lenders make private educational loans to families who meet their credit requirements. Such loans may be in a variety of forms, including personal loans, credit lines, home equity loans, insurance policies and passbook savings loans.

Finance Charges: Balances on unpaid accounts accrue finance charges at an annual percentage rate of 12 percent unless otherwise stated by separate agreement approved by the Bursar's office. This interest applies in all circumstances regardless of the intentions or anticipated methods of payment proposed by the student. Accounts with outstanding balances awaiting corporate reimbursement, financial aid or other sources continue to accrue interest until such time as the account is paid in full.

Account Disbursement Policy: Financial aid is applied in the following manner: 1) first, to term-related program charges and then 2) to any remaining educational-related expenses. Under no circumstances does WATC advance funds on the presumption of financial aid not yet authorized or any anticipated funding from outside sources. Students' accounts must evidence a credit balance before cash disbursements to students are made.

Credit Worthiness: WATC reserves the right to examine and evaluate credit worthiness at any time. The student's signature on any extended payment agreement authorizes the college to obtain information from credit reporting agencies and to report the account payment performance to credit bureaus. WATC reserves the right to refuse credit or any form of deferred payment agreement to students based on a verifiable record of previous default on such

arrangements at WATC and/or information received from credit bureaus or other reporting agencies. If an unforeseen financial hardship prevents students from making payments as agreed, a formal payment agreement may be arranged with the Bursar's office to rectify the default. However, if the student does not choose to do this, the debt may be referred to a collection agency. Once this has occurred, all arrangements for repayment must be made with that agency, and the account holder forfeits the right to petition for leniency or to dispute the charges. WATC requires advance payment for future educational benefits on accounts that have previously been referred for collection or following a loss that is the result of a bankruptcy discharge.

Default: If students do not pay their account in accordance with any agreement approved by WATC in writing, they are considered to be in default. If WATC does not have a written agreement, students are in default if they do not pay their balance in full by the due date. Default means that WATC may require full payment of the account balance, and the balance due on the account may become immediately subject to a 12 percent per annum finance charge. If it becomes necessary to refer a student's account to a collection agency or an attorney, WATC may add incurred collection costs, attorney fees and court costs to the student's account. These fees and costs could be up to 50 percent of the defaulted balance.

Refund/Repayment Policy

Schedule Changes: Students who are considering withdrawing from a program or dropping courses must contact the registrar, their instructors and their advisor or senior learning officer. Schedule changes can affect a student's account balance and financial aid eligibility and status.

Cancelled Courses: All tuition, student fees and course fees are refundable for courses that are cancelled by WATC. Refunds, when due, are made within 30 days from the date the course is cancelled.

General Refund Guidelines

Drops and/or Withdrawals before First Day of Courses

Refunds for drops or complete withdrawals on or before the first day of classes are given for tuition, fees, undistributed materials, undistributed uniforms and program dues. No other charges are refundable. See Tuition Refund Schedule.

Drops and/or Withdrawals After Courses Begin

Refunds for drops or complete withdrawals after classes begin are given for tuition and fees only. No

other charges are refundable including, but not limited to, registration fee, uniforms, tools, materials, insurance, program testing/exam fees, dues and other student fees.

Tuition Refund Schedule

Refunds for students who drop or withdraw after tuition has been paid are calculated based on the following schedule:

For 8- to 16-Week Credit Courses	*Refund Amount*
Prior to and including the 1st day of class	100% refund
Up to seven calendar days after 1st day of class	100% tuition*/fees
Eight or more calendar days after 1st day of class	No Refund

For 2- to 8-Week Credit Courses	*Refund Amount*
Prior to and including the 1st day of class	100% refund
Up to five calendar days after 1st day of class	100% tuition*/fees
Six or more calendar days after 1st day of class	No Refund

For Non-Credit/Less Than 2-week Courses	*Refund Amount*
Prior to 1st day of class	100% refund
After course begins	No Refund

Refunds

Refunds, when due, are made within 30 days from when the credit balance is generated. If refunds are a result of the receipt of Title IV funds, any credit balance is to be refunded to the student, or parent if from a PLUS loan, within 14 days from the date that the credit balance is generated. Refund cheks are mailed directly from Finance to student's recorded address. Students may not pick up refund checks.

Exceptions to Student Refund Policy: Students with extreme extenuating circumstances may make an appeal of the tuition refund calculation by submitting a written request to the Bursar's office.

Administrative Dismissal From College: If a student is administratively dismissed from WATC, the dismissal date is used as the effective date to calculate any refund.

Repayment of Title IV Funds: For all students, if the student has received funding from student financial assistance (Stafford loans, PLUS loans, Pell Grants or ACG Grants) and withdraws during a period of enrollment or payment period, the amount that has been earned up to that point is determined on a pro rata basis. See Financial Aid section or contact the Financial Aid office for further information.

Any amounts that are unearned are added back to the student's account as a reduction in the amount of financial aid that has been previously posted. This calculation is independent of the calculations used to determine tuition and fee refunds as described in the refund policy above. After both calculations have been performed, any resultant amount owed to the college is due immediately.

Credit Balance Refunds: Students who have a credit balance on account after payment of current enrollment charges with Title IV funds (Federal Pell grants, student loans, etc.) receive refund checks automatically within 14 days. These refund checks are mailed directly to the student using the local mailing address reported by the student to the Registrar's office. Refund checks for credit balances created by payment with PLUS loans are issued to the parent. Financial aid for the applicable enrollment period is not credited to a student's account until enrollment has been finalized and all associated charges have been posted. Credit balances are not refunded until all current charges have been paid in full. Students who wish to retain the credit balance in their account to cover anticipated additional educational expenses may arrange to do so by written request. Forms are available in the Financial Aid and Bursar's offices. In the event that a manual check is approved and issued from a student's account, a processing fee of $25 is charged.

Academic Success – Tutoring

Academic Success program assists students in mastering the necessary skills to progress with their college education. The instructional program includes tutoring, test preparation courses for COMPASS®, WorkKeys® and TEAS® assessments. These courses are supported by individualized, self-paced laboratory practice. Materials and tutorial assistance are available in the laboratory to help students improve their skills and ready themselves for entry into college-level coursework.

To fulfill WATC's mission to provide relevant, technical education for employment and lifelong learning, Academic Success provides an academic safety net for the needs of two student groups:

- Those who require or desire work in pre-technical college-level competencies, such as reading, writing and math.
- Those who require or desire to improve their college experience through tutoring in a specific subject and learning enhancement activities, such as reading comprehension, study skills and personal career development.

Academic Success staff members are committed to helping students succeed in technical programs and college-level courses and to helping them prepare for lifelong success. Tutoring is available free of charge for currently registered students.

Courses may be taken to prepare for placement exams, to refresh skills prior to taking college-level courses, or

they may be taken along with other college courses as reinforcement.

Academic Success Goals

Academic Success' primary goal is to ensure that students who enter WATC have opportunities to protect and increase their personal dignity by gaining:

- Proficiency in academic skills.
- Competencies for academic success.
- Confidence to pursue personal goals.
- Problem-solving skills associated with learning and personal development.

Self-Paced and Independent Study Courses

Self-paced and independent study courses are designed for students who can work independently, without the necessity of regularly scheduled lectures. In these types of courses, there are no lectures. Instructors assign readings, computerized instruction and any videos/tapes that may be required. Instructors are also available to answer questions. Students learn the required material at their own pace. Self-paced and independent study courses are not easier than instructor-led courses.

Courses may be taken to prepare for placement exams, to refresh skills prior to taking college-level courses, or they may be taken along with other college courses as reinforcement.

Who Should Take Self-Paced Courses

Self-paced courses are for anyone who would like to brush up on math or writing skills prior to entering formal college coursework.

Interested in What WATC's Academic Success Program Offers

Visit WATC's Web site at www.watc.edu.

WATC

www.watc.edu

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Additional Services and Resources

Additional Services and Resources

Building Accessibility / Accommodations

WATC does not discriminate with regard to disability in employment, education, admissions or activities. The layout at all locations makes it possible for physically disabled individuals to access most programs of study offered. Special-need services are provided to improve access to education opportunities and to provide reasonable accommodations for individuals with disabilities that limit life functioning. Reasonable accommodations are provided to individuals with documented disabilities. It is the responsibility of individuals with disabilities to make their needs known to the Dean, Student Success who is responsible for student disability services. Forms are available through Learner Success or online at www. watc.edu.

WATC encourages students with disabilities to practice self-advocacy. Anything that faculty and staff members can do to aid this process enhances mutual understanding and communication.

Disability Services

Wichita Area Technical College (WATC) recognizes that traditional methods, programs and services are not always appropriate or sufficient to accommodate limitations experienced by some qualified persons with disabilities. When a disability prevents a student from fulfilling a course requirement through conventional procedures, consideration is given to alternatives while also realizing that academic standards must be maintained.

College Responsibilities

In accordance with Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act of 1990, WATC has pledged to provide equal access and equal opportunity to qualified students. Qualified students are those who, with or without reasonable accommodations, can perform the essential academic functions of an academic program or course.

Student Responsibilities

Students with disabilities who may benefit from accommodations must identify themselves to disability services. There is no automatic continuation of services from high school to college, and there is no special education program. If students do not disclose a disability, it will go unknown and unaddressed.

It is always the student's choice to disclose information about their disability and to request assistance. Students have the responsibility to:

- Self-identify or disclose their disability to the coordinator of disability services.
- Obtain assessment and evaluation results regarding the specific disability.
- Provide verifying documentation if requesting supportive services.
- Act and function as an independent, responsible adult.
- Contact faculty to activate an accommodation after a request has been made.
- Arrange for any personal needs and supports independent of what the college is allowed to provide.

The Dean, Student Success, serves as the coordinator of disability services for students with disabilities, acts as the resource person to faculty and staff members and is the liaison to outside agencies. Forms to request services are located on the college Web site, www.watc. edu.

Bookstore

WATC maintains a bookstore at the National Center for Aviation Training and the Southside Education Center. The bookstore sells books, program tools, clothing, snacks, drinks, various supplies and other items.

Food Services

All WATC locations have lounge areas with vending machines where food and beverage items are available to purchase.

Housing

WATC is an urban college and does not own, operate or enter into formal agreements for student housing. Contact an advisor for local information, 316.677.9400.

Inclement Weather

If classes are cancelled due to inclement weather, notification of cancellation is sent to local radio and television stations. If a student is unsure about a

particular location, information is available through the administrative office; by calling the college's Emergency Closing Hotline, 316.677.9596; and online at www.watc.edu.

Student Identification

The ability to easily identify current WATC students is an important component of WATC's campus safety and security efforts. Students must have a valid WATC photo student identification (ID) card for the current semester. Students are required to wear their IDs in a manner that keeps them readily visible while on any WATC property. IDs may also be required to access resources in the Library and Learning Resources Center. Student IDs can be obtained through the Learner Services office at the National Center for Aviation Training or the Southside Education Center.

Library Learning Resources

WATC's Library is located at the Southside Education Center. Collections include books, current periodicals, and audio-visual materials. An online catalog makes searching for library materials quick and simple. A variety of online databases offers access to journal articles, images, and e-books. Off-campus, students can access the library through WATC's Firefly.

The library offers Information and Library Literacy training to the student population. This training introduces students how to access and analyze information in a digital world. This training provides life skills for future academic work and a competitive edge in the job market. Online tutorials are available on the web page to assist students.

The library provides individual reference and research support to everyone, including prospective students and community members. Computers at the front of the library are available for public use and include internet access.

Interlibrary Loan is a system to order books and journal articles from other libraries throughout the world for faculty, staff, students and community members. This worldwide "library" provides timely and free access to necessary research materials.

There are study carrels for individual study and tables for group study. To help students relax, a comfortable seating area is provided and wireless internet service is available.

The library staff is always ready to serve your research needs. You may call, email, or stop by for assistance. Current hours and other information can be found at www.watc.edu.

WATC Library

4501 E. 47th St. South
Wichita, KS 67210-1651
316.677.9492
library@watc.edu

Internet Usage

Board policy LS 6.0 Acceptable Use of Computers, Networks, Internet, Electronic Mail and Other Online Services—Students describes procedures that must be accepted and followed. All individuals utilizing these resources are required to complete and sign an Internet Access Contract.

Student Organizations

The local chapter of SkillsUSA, a club for vocational industrial students, offers students a wide variety of leadership skill training and professional development opportunities. Students also have opportunities to participate in local, state and national leadership and skill conferences. These activities present students with excellent opportunities to build self-confidence, meet new people, participate in competitive events and visit with local, state and national employers.

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Policies and Procedures

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Policies and Procedures

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Student Bill of Rights

LS 13.0 Policy Statement

The Wichita Area Technical College (WATC) community expects all members to discipline themselves, individually and collectively, and it requires adherence to the regulation of conduct appropriate for an academic community. Members of the college community are obligated to assume individual responsibility for their personal freedoms and obligations. WATC must and will take appropriate action when a member's conduct places the best interests of the community at jeopardy.

Students are both citizens and members of the academic community. As citizens, they enjoy the same freedoms of speech, peaceful assembly and right of petition that other citizens enjoy. As members of the academic community, they assume the obligations inherent in that membership, and as representatives of the college. Students, as members of this community, are responsible for being familiar with the policies of WATC.

1. **Freedom of Association:** Students are free to organize and to participate in voluntary associations of their own choosing, subject only to reasonable college regulations ensuring that such associations are neither discriminatory in their treatment of other members of the college, nor operated in a manner that substantially interferes with the rights of others or does not impede nor compromise the academic environment of the institution. Freedom of association may not be forbidden because of the general political or philosophical objectives of any particular group. However, college groups or organizations are under a strong obligation to avoid representing their actions or views as those of the college.

2. **Recognized Campus Organizations:** A recognized organization is a group of WATC students organized for a stated purpose that has official recognition from the college. Affiliation with extramural organizations shall not of itself disqualify student organizations, neither from institutional recognition nor from the use of college facilities, although reasonable provisions may be made to safeguard the autonomy of college organizations from domination by outside groups.

3. **Freedom of Speech and Assembly:** No regulation shall restrict student expression solely on the basis of disapproval or fear of their ideas or motives. Students and student organizations shall be free to examine and discuss all questions of interest to them, and to express opinions publicly and privately. Modes of expression or assembly that are manifestly unreasonable in terms of time, place or manner may be forbidden. This does not, however, abrogate students' accountability as citizens to the laws of the larger society.

    Students and student organizations shall always be free to support causes by orderly and peaceful assembly that does not infringe upon the rights of others or the academic environment of the institution. It shall be made clear that such expressions represent views of the students or student organizations and not the college.

    Student groups are allowed to invite and to hear any persons of their own choosing. Routine procedures required by the college before guest speakers are invited to appear at college locations shall be designed to ensure that there is orderly scheduling of facilities and adequate preparation for the event. College control of college facilities shall not be used as a device of censorship. It shall be made clear to the academic and larger community that sponsorship of guest speakers does not necessarily imply approval or endorsement of the views expressed, either by the sponsoring group or the college.

4. **Freedom of the Press:** There shall be no ideological censorship in the determination of printed matter available at the college; access to publications is not to be denied because of disapproval of their content. Any student publications supported by compulsory student fees or by substantial college subsidy shall, however, be subject to the rules and regulations of the Sedgwick County Technical Education and Training Authority acting as trustees of the college or their designees.

5. **Freedom in the Classroom:** Classrooms are not unstructured political forums; they are the center for study and understanding of described subject matter for which faculty members have professional responsibility and institutional accountability. Faculty members should respect the confidential nature of the relationship between faculty and students. Faculty members should avoid exploitation of students for private advantage and should acknowledge significant assistance from them. Faculty members should protect students' rights as defined herein. Control of the order and direction of class, as well as control of the scope and treatment of the subject matter, must therefore, immediately rest with faculty members,

free from disruption by students or others who may be in disagreement with the manner in which they discharge their responsibilities.

Students have the right to be informed in reasonable detail at the beginning of each term of the nature of the course, course expectations, the evaluative standards and the grading system that is being used.

Students have the right to take reasonable exception to the data or views offered in classrooms and to reserve judgment about matter of opinion without fear of penalty.

Students have the right of protection against improper disclosure of information concerning their grades, views, beliefs, political associations or character that faculty members acquire in the course of their professional relationships with students.

Students shall have protection through orderly procedures against prejudiced or capricious academic evaluation. At the same time, they are responsible for maintaining standards of academic performance established for each course in which they are enrolled.

6. **Nondiscrimination:** It is the policy of WATC not to discriminate against any individual in matters of admission, employment, housing, services or in the educational programs or other activities based on non-meritorious factors including, but not limited to, age, race, sex, color, religion, gender, national origin, ancestry, disability, veteran status or political affiliation.

7. **Student Records:** WATC complies with the Family Educational Rights and Privacy Act (FERPA) of 1974 and affords students certain rights with respect to their educational records. This act was designed to protect the privacy of educational records, to establish students' right to inspect and review their educational records and to provide guidelines for the correction of inaccurate or misleading data through informal and formal hearings. See board polices LS 4.0 Construction and Maintenance of Educational Student Records and LS 5.0 Privacy of Student Records.

   In accordance with FERPA, WATC requires that students who want WATC to release copies of grade transcripts or any other information relative to academic performance must give WATC permission to do so.

8. **Equal Protection:** WATC has an obligation to apply its regulations equally to all students who are similarly situated. This does not mean, however, that the college is required to refrain from taking action against some offenders because there are others who cannot be identified or who are not similarly charged.

Student Code of Conduct
LS 14.0 Policy Statement

The college community expects all students to live by the following regulations that are designed for its general well being. Any violations of these board policies may result in disciplinary actions, such as probation, suspension, expulsion and/or legal actions. Visitors to the college shall observe these regulations while on college property. Noncompliance by their visitors may subject students to sanctions imposed by the college as well as to the provisions of local and state law.

College students enjoy all the rights and privileges of citizenship. Students are subject, however, to the special obligations that accrue to them as members of the academic community. Institutional efforts should be exerted to develop, not inhibit, intellectual and personal development of students by the exercise of the rights of citizenship both on and off college locations.

The enforcement of the obligations of students to the larger society is the responsibility of the legal and judicial authorities duly established for that purpose. When the interests of the college community are clearly involved, however, the authority of the college may be asserted. The fact that a violation occurs off college locations does not preclude the interest and involvement of the college.

The Student Code of Conduct exists to encourage the best possible learning and living environment for all students. It is the obligation of students to treat all other members of the academic community with dignity and respect — including other students, faculty members, employees, visitors and neighbors of WATC. The enforcement of college regulations is critical to the existence of such an environment for all members of the academic community. Violation of the Student Code of Conduct may lead to disciplinary action up to and including dismissal from the institution.

The following are not permitted:

1. **Academic Dishonesty:** Cheating or plagiarism in any form is unacceptable. The college functions to promote the cognitive and psychosocial development of all students. Therefore, all work submitted by students must represent their own ideas, concepts and current understanding. Academic dishonesty also includes submitting substantial portions of the same academic coursework to more than one course for credit without prior permission of the faculty members.

2. **Falsification of College Records:** Willful falsification of official records or documents or omission with the intent to deceive is prohibited.

Included in this regulation, but not limited to the following examples, is the forging, alteration or misuse of college documents, records, academic record change forms, fee receipts, identification cards, parking permits, financial aid forms, telephone billing cards, WATC forms or documents and computer tampering.

3. **Use of Alcoholic Beverages on College Property:** Possession, consumption or sale of alcoholic beverages is prohibited in college-owned, leased or operated facilities and on campus grounds unless otherwise specifically authorized by college administration for an event.

4. **Illegal Drug Activity:** Possession, manufacture, distribution, use or sale of drugs or drug paraphernalia and narcotics classified as illegal, except those taken under a doctor's prescription, are prohibited on college-owned or controlled property or at any college-sponsored or supervised function.

5. **Hazing:** Hazing is defined as an activity that endangers the physical safety of a person; produces mental or physical discomfort; causes embarrassment, fright, humiliation or ridicule; or degrades the individual — whether it is intentional or unintentional. The college does not tolerate students being subjected to any treatment that debases individuals' status or robs them of dignity.

6. **Harassment:** Conduct toward another person or identifiable group of persons including, but not limited to, unwelcome comments or other conduct that unreasonably interferes with an individual's work or academic performance or creates an intimidating, hostile or offensive environment for that individual's work, education or participation in a college activity; or retaliation against any person filing a conduct complaint or against any person cooperating as a witness. Harassment based on race, age, sex, color, religion, gender, national origin, ancestry, disability or veteran status is not tolerated.

7. **Physical Assault:** Conduct including, but not limited to, unwanted touching, threats of violence, use of violence and/or fighting.

8. **Sexual Harassment and/or Sexual Assault:** Any actions or statements of a sexual nature that are abusive, intimidating, harassing or embarrassing, along with implied or stated threats are prohibited. This policy includes, but is not limited to, unwanted touching or comments, retaliation, threats of violence, use of violence and sexual assault.

9. **Lewd or Indecent Conduct:** Conduct including, but not limited to, actions that are indecent, vulgar, obscene, profane or offensive is prohibited.

10. **Destruction/Damage/Misuse of Property:** Malicious destruction, damage or misuse of college or private property.

11. **Disorderly Conduct:** Detaining or threatening another person, obstructive or riotous acts and/or verbal/physical abuse of any member of the WATC community on- or off-college locations.

12. **Unauthorized Entry:** Any unauthorized or forceful entry, whether actual or attempted, into any college facility or building.

13. **Failure to Obey Official Orders:** Failure to disperse or to leave; disrupting or obstructing a college building or facility, room or other premise; failure to identify oneself with an identification card; or to cease the use of loudspeakers, amplifiers or other forms of noise after being given notice or an official order to do so by a duly authorized agent or administrative officer of the college.

14. **Theft:** Theft or the conversion of another's property — personal, public or college.

15. **Possession or Use of Firearms/Weapons:** The possession, wearing, carrying, transporting or use of a firearm or other dangerous weapon, incendiary device or explosive is strictly forbidden on college-owned or controlled premises or vehicles.

16. **Gambling:** Any illegal game or contest played for money or for any form of property or item of value. Gambling includes, but is not limited to, games played with cards, dice or other gambling devices that involve betting and/or wagering.

17. **Fiscal Misconduct:** Fiscal misconduct includes, but is not limited to falsification of college or student organization financial records, any purchase made without organization membership approval, including, but not limited to, long-distance calls, copier use, signature of contracts, travel expenses, etc.; failure to relinquish student organization financial records to officers/advisors and/or WATC officials; failure to provide an end-of-fiscal-year financial disclosure statement to the organization's membership when requested to do so; writing non-sufficient funds checks to the college; forgery; and/or embezzlement.

18. **Failure to Comply With Official Notification:** Failure to comply with any official notification, written or verbal, of a duly authorized administrative, faculty or conduct authority of the college.

19. **Conduct System Process Misconduct:** Falsifying, distorting or misrepresenting information before a conduct authority and/or knowingly instituting a conduct proceeding without cause.

20. **Other Acts of Misconduct:** Violation of any city or state laws and/or board policies or the policies of WATC instructional centers and satellites, including internship and clinical sites.

21. **Irresponsibility:** Living organizations, societies, clubs and similarly organized groups are responsible for compliance with college regulations. Upon satisfactory proof that a group encouraged or did not take satisfactory steps to prevent violations of college regulations, that group may be subject to permanent or temporary suspension, loss of recognition or charter, social probation or other action.

Academic Probation

To graduate, students must maintain a minimum cumulative GPA of 2.0 on a 4.0 grading scale. Students who are registered in six or more credit hours and do not maintain a 2.0 cumulative GPA are placed on academic probation the following semester of registration. Students who receive financial aid must meet additional criteria to meet satisfactory academic progress. Contact Financial Aid, 316.677.9400, for additional information.

At the close of each semester, the registrar and the Dean, Student Services, review students' academic records and notify students in writing of their probationary status.

To register while on academic probation, students are required to:

- Meet with a career planner to understand the terms of academic probation and academic suspension.
- Complete a written action plan with a career planner. The action plan must have the approval of the appropriate department chair and include specific academic goals that facilitate achieving the required GPA, which may include meeting with the department chair or instructor to determine progress, as well as any additional actions or interventions deemed necessary.

If students' semester and cumulative GPAs meet the requirements for satisfactory academic progress at the conclusion of the probationary semester, students are no longer considered to be on academic probation. Students who do not meet satisfactory academic progress requirements are placed on academic suspension.

Students who are placed on academic suspension at WATC may appeal to the vice president, Academic Affairs and Learner Services. For details on this process, refer to Student Grievance Policy. Students who are placed on academic suspension are not eligible to register for the next regular semester. After one semester of academic suspension, students may register under continued academic probation status until their GPA reaches 2.0.

Student Grievance Policy

LS 15.0 Policy Statement

Wichita Area Technical College encourages all students to pursue academic goals and other college-sponsored activities that promote intellectual growth and personal development. In pursuit of these goals, students should be free of unfair or improper action from any member of the academic community. Students, however, must also be aware that they are responsible for complying with all board policies and for maintaining the appropriate requirements as established by the faculty for each course in which they are enrolled. The following grievance procedures were developed to provide students with a prompt and equitable means of seeking an appropriate remedy for any alleged violation of their rights.

General Provisions

Under this section, a grievance may be initiated by a student alleging violation of board policies and procedures. The grievance may be against another student, an instructor, an administrator or a member of the staff.

Processing the Grievance

Students who believe they have been subjected to an unjust action or denied rights by a member of the academic community may seek to rectify the situation according to the following procedures. The following actions are grounds for a student grievance:

1. Prejudiced or capricious decision in the academic evaluation of a student's performance.
2. Prejudiced or capricious decision in orientation, counseling, assessment or any other matriculation procedure.
3. Act or threat of intimidation or harassment.
4. Act or threat of physical aggression.
5. Arbitrary action or imposition of sanctions without proper regard to due process as specified in college procedures.
6. Violation of students' rights, which are described in the college regulations.

Step I: Informal Procedure

Before filing a formal, written grievance, students should first attempt to resolve the issue in the following manner. An informal conference should be conducted with:

1. The person against whom the grievance is directed, if the student is comfortable with such a meeting. (Optional: Sexual harassment/sexual assault claims should follow the formal procedure.)

2. The appropriate department chair.
3. The vice president, Academic Affairs and Learner Services, for academic evaluation of student's performance (#1 under Processing the Grievance).
4. The vice president, Academic Affairs and Learner Services, for all other student grievances (#2–6 under Processing the Grievance).

Students who feel that a grievance has not been resolved by any of the above conferences within ten business days, may submit a formal grievance to the appropriate vice president.

Step II: Formal Procedure

Formal grievances shall be filed within 30 days of the action being grieved. Grievances should be submitted to the vice president, Academic Affairs and Learner Services. Grievances will be referred to the Student Grievance Committee, a standing committee with one-year appointments.

The process for submitting a formal grievance to the vice president is as follows:

1. The student shall complete and submit within five working days, after the Informal Process, a grievance form provided by the vice president.
2. Upon receipt of the completed grievance form, the vice president shall, within ten working days:
   a. Request a response from the person against whom the charges are made. That person should submit a response within ten business days. Failure to respond within the defined timelines will not delay the processing of the grievance.
   b. Refer the grievance materials from both parties to the chair of the Student Grievance Committee. The committee chair will convene the committee to investigate hearings, establish findings of facts and recommend action for resolution.
   c. The vice president shall also advise the student of the investigation that will ensue.

The Student Grievance Committee shall conduct its proceedings as follows:

1. A record of all information in the possession of the vice president shall be given to the committee chair. The committee shall make every reasonable effort to conduct its hearing and present its findings and recommendations within 15 business days of receiving the grievance.
2. The committee shall discuss issues, hear testimony, interview witnesses and consider all available evidence pertaining to the charge.
3. Both parties shall have the right to present written or oral statements, testimony, evidence and witnesses. Each party has the right to be present at the hearing.

4. The committee shall judge the relevancy and weight of testimony and evidence and make its findings of facts, limiting its investigation to the formal charge. The committee shall also make recommendations for the disposition of the charge.
5. The hearing shall be closed to the public.
6. The committee shall submit its findings of facts and recommend action within ten business days after the hearing to the vice president, with a copy to each party and the college president.
7. A summary record of the proceedings is the responsibility of the committee chair. These proceedings should be kept in a file by the appropriate vice president for two years and shall be available to both parties.
   a. Final action for all grievances: The vice president, upon receiving the findings of facts and recommendations of the committee, will review the proceedings of the committee, conduct such investigations as are appropriate and take one of the following actions:
      i. Concur with committee's recommendations.
      ii. Reduce the recommended sanctions.
      iii. Dismiss the charge.

   If ii or iii should occur, the vice president shall convene the committee for further discussion and consultation. The decision by the vice president shall be rendered within five business days, in writing, to the accused person, the appropriate committee, college president and student filing the grievance.
   b. The accused or the aggrieved person may write an appeal of the decision made by the vice president to the college president within five business days. Upon receipt of the appeal, the college president will review the proceedings of the committee, conduct such investigations as are appropriate and take one of the following actions:
      i. Concur with committee's recommendations.
      ii. Reduce the recommended sanctions.
      iii. Dismiss the charge.

   If ii or iii should occur, the president shall convene the vice president and committee for further discussion and consultation. The decision by the president shall be rendered within five business days, in writing, to the accused person, the appropriate committee, vice president and student filing the grievance. The president's decision is final, unless, the grievance is specifically against the president.
   c. In the event a grievance is against the president, a written appeal may be filed with the board within ten business days. Upon receipt of the appeal, the board will review the proceedings

of the committee, conduct such investigations as are appropriate and take one of the following steps:

    i.   Concur with committee's recommendations.

    ii. Reduce the recommended sanctions.

    iii. Dismiss the charge.

The decision of the board shall be made within ten business days and transmitted, in writing, to the accused person, the committee, the president, the vice president and the student filing the grievance. The decision of the board is final.

  d. Retaliation: Any retaliatory action of any kind, by an employee or student of the college against any student as a result of filing a grievance under these procedures, cooperating in an investigation or other participation in these procedures, is prohibited and will be regarded as basis for disciplinary action.

Students who feel their concerns have not been satisfied at the local level are free to write to WATC's accrediting institution:

<div align="center">

The Higher Learning Commission
30 North LaSalle Street, Suite 2400
Chicago, Illinois 60602-2504
Phone: 800.621.7440 / 312.263.0456
Fax: 312.263.7462
www.ncahlc.org

</div>

Student Discipline

Procedure for Probation, Suspension and Expulsion

WATC provides every student the opportunity to learn. Taking advantage of this opportunity is the student's responsibility. Students are expected to acquaint themselves with the Student Bill of Rights, the Student Code of Conduct and all published policies and procedures and are held responsible for compliance with these policies and procedures.

The board may place on probation, suspend or expel, or by regulation, may authorize the president or vice president, Academic Affairs and Learner Services, or their designees, to place on probation, suspend or expel any student who violates the Student Bill of Rights, the Student Code of Conduct or other published policies.

Internet Usage

Board policy LS 6.0 Acceptable Use of Computers, Networks, Internet, Electronic Mail and Other Online Services—Students describes procedures that must be accepted and followed. All individuals utilizing these resources are required to complete and sign an Internet Access Contract. Examples of violations can be found in board policy AF 10.0 Academic Probation, Suspension and Expulsion.

Acceptable Use of Computers, Networks, Internet, Electronic Mail and Other Online Services– Students

LS 6.0 Policy Statement

Wichita Area Technical College is committed to making advanced technology and increased access to learning opportunities available to all students. The goal of the college in providing access to students is to promote educational excellence by facilitating resource sharing, innovations and communications. The use of computers, networks, the Internet or other online services shall be in support of education and research consistent with the college's educational objectives.

Implemental Procedures

1. **Student Responsibilities:** Regardless of any "technology protection measure" implemented by the college as may be required by the Internet Protection Act, students are responsible for good behavior on computers, networks, the Internet or other online services just as they are in a classroom or a hallway. General college rules for behavior and communications apply. Network storage areas will be treated like college lockers. Network administrators, instructors and other appropriate college staff may review student files and student communications from time to time to prevent misuse and to ensure students are using the system responsibly and in compliance with laws and college policies. Communications on the network are often public in nature; students should not expect that files stored on college servers will be private.

2. **Permission:** Students must have permission from, and be under the supervision of, college professional staff before utilizing college-provided computers, networks, the Internet or other online services. Permission is not transferable from one student to another and may not be shared. Students shall not be allowed to utilize electronic communications unless a signed Student Access Contract is on file. To remain eligible as users, students' use must be consistent with the educational objectives of the college. Access is a privilege, not a right, and inappropriate use will result in, among other disciplinary measures, the cancellation of those privileges. Students will

display college-appropriate conduct when using the computer equipment or network and shall maintain an environment conducive to learning.

3. **Violations:** Administrators, instructors and other appropriate college employees decide what inappropriate use is. Violating this policy may result in:

    a. Restriction or loss of network access; and/or

    b. Disciplinary or legal action including, but not limited to, suspension or expulsion from college and/or criminal prosecution under appropriate local, state and federal laws; and

    c. Assessment of the cost of damages to hardware/software.

4. **Inappropriate Use:** The following uses of college-provided computers, networks, the Internet or other online services are not permitted on the part of WATC students:

    a. Accessing, uploading, downloading or distributing pornographic, obscene or sexually explicit material.

    b. Transmitting obscene, abusive, sexually explicit or threatening language.

    c. Violating any local, state or federal statute.

    d. Accessing another individual's materials, information or files without permission.

    e. Violating copyright or otherwise using the intellectual property of another individual or organization without permission.

    f. Using others' passwords.

    g. Vandalizing, defined as any unauthorized access and/or malicious attempt to damage computer hardware/software or networks or destroying the data of another user, including creating, uploading or intentionally introducing viruses.

    h. Intentionally wasting limited resources.

    i. Using the network for commercial purposes.

    j. Harassing, insulting or attacking others.

    k. Using, disclosing or disseminating personal information online such as full name, home address, phone number, etc., except with approval by certified or administrative college staff.

    l. Using e-mail lists from the college's Internet site, network or servers to create mailing lists for non-college purposes.

    m. Gaining unauthorized access to resources or entities.

    n. Invading the privacy of individuals.

    o. Improperly altering the setup of computers (e.g., desktops, icons, wallpapers, screen savers, installed software) as determined by the network administrator.

    p. Using software that has not been assigned or approved by staff.

    q. Failing to follow a college policy while using computers or failing to follow any other policies or guidelines established by college administration, instructors or other appropriate college staff.

    r. Seeking to gain or gaining unauthorized access to information resources or other computing devices.

    Violation of the above uses will result in disciplinary actions up to and including dismissal from the institution.

5. **Security Risk:** Any student identified as a security risk or having a history of problems with other computer systems may be denied access.

6. **Disclaimer:** The college makes no warranties of any kind, whether express or implied, for the access it is providing. The college will not be responsible for any damages suffered. This includes loss of data resulting from delays, nondeliveries, misdeliveries or service interruptions caused by its own negligence, user errors or omissions. Use of any information obtained via the Internet is at the user's risk. The college denies any responsibility for the accuracy or quality of information or for any commercial transactions conducted through its system.

7. **Statements of Personal Belief:** Any statement of personal belief found on computers, networks, the Internet, other online services or other telecommunication system is implicitly understood to be representative of the author's individual point of view, and not that of WATC, its employees or the participating school. No representations to the contrary shall be published without written approval from the college. Program or college administrators may review all content in any Internet or online accounts paid for, in whole or in part, by the college without notice of any kind.

Parking Regulations

Where and How to Park

WATC assumes no responsibility for the care or protection of any vehicle or its contents during time parked or operated on the grounds of any WATC property. Vehicle registrants are held responsible for the safe operation and parking of their vehicle regardless of who may be operating the vehicle.

Lack of space is not considered a valid reason for violating parking regulations. Vehicles parked outside the parking space boundaries, regardless of the reason, will be ticketed. Backing into parking spaces is prohibited.

Handicapped Parking

Vehicles parked in a WATC designated handicapped parking area must display a current handicapped parking permit.

Parking Fines and Removal

WATC reserves the right to remove, or have removed, any vehicle that is parked in such a way as to constitute a hazard; impedes vehicular or pedestrian movement; blocks the operation of emergency equipment; or hinders making essential repairs. Vehicles deemed abandoned may also be removed from WATC property. Owners of such vehicles are responsible for paying all costs involved in the removing, impounding and storage of such vehicles.

Fines may be assessed for improper parking, parking in restricted or no-parking areas; speeding or reckless driving; failure to register vehicle with WATC; and failure to follow directions of school authorities in matters related to vehicular traffic and parking.

Safety and Security

The safety and security of all individuals while on WATC property and in classrooms and laboratories are of utmost consideration to WATC. This is the reason for the following WATC administrative procedures and policies.

Safety and security are everyone's responsibility. Students and employees should familiarize themselves with recommended security and prevention methods. All individuals are reminded to always be conscious of their surroundings and immediately report all suspicious activities. Security procedures are discussed during orientation and counseling sessions. Security information is available from administration at each location.

For more information about safety policies, as well as personal safety suggestions, pick up WATC's Safety Report brochure, which is available from the Admissions office, administrative offices at all locations and online at www.watc.edu.

Board Policies Regarding Safety

WATC's board policy LS 14.0 Student Code of Conduct is designed to ensure the fundamental right to safety. These policies protect college property, students, instructors and other employees and their possessions on or about any college property while attending or while located at the site of any college-sponsored function.

Operations personnel serve as the liaison between WATC and the Wichita Police Department and the Sedgwick County Sheriff's office. If a criminal action or other emergency is reported, college personnel respond quickly to protect individuals from bodily harm or to prevent destruction of property. In some cases, college personnel may involve the Wichita Police Department or the Sedgwick County Sheriff's office.

Manuals outlining procedures to ensure the safety and security of all individuals and deter criminal activity have been developed for each location and are reviewed annually. Administration identifies specific strategies to implement policies and to explain expectations and incident reporting procedures to students and employees.

Access to WATC Facilities

WATC facilities are restricted to those who have a legitimate purpose for being on the premises. Others will be asked to leave. Facilities are secured and locked when classes are not in session. After-hours building access is limited. Locks and other equipment necessary to provide security to buildings, contents and occupants are checked regularly.

Reporting Criminal Activities

The Crime Awareness and Campus Security Act of 1990, regulation 34 CFR 668.46(c)(1), states that an institution must report statistics for the three most recent calendar years regarding the occurrence of criminal offenses and arrests that have been reported to local police agencies or to a security authority (including campus, buildings or property and public property). See WATC's Safety Report, which is available from the Admissions office, administrative offices at all locations and online at www.watc.edu.

Prevention Measures

The prevention of crime is everyone's responsibility. Everyone should plan ahead and not place themselves or their possessions in danger.
• Mark all tools and equipment with an engraver.
• Make sure vehicle is always locked.
• Don't carry large sums of money.

Extra care should be taken at night. Some proven tips to minimize danger are to:
• Park in an open, well-lit, visible spot.
• Travel to and from college in pairs whenever possible.
• Leave the building with a group of people.
• Look under and inside the vehicle before opening the door to get in the vehicle.
• Be aware of everything and everyone around.

Suspicious acts, vandalism or emergencies should be reported immediately to security, building administrator or an instructor. Let them investigate. Don't assume that they already have the information — they need and appreciate assistance in preventing crimes.

Equipment and Machinery

Due to the nature of the equipment used for instructional purposes, it is imperative that all individuals adhere to safe practices at all times. In addition to the safety instructions and precautions that instructors provide, students must refrain from utilizing any power equipment in laboratory areas when instructors are not present. Students must have authorization and proper instruction where necessary to use equipment in classrooms and related laboratories. Damage to machines or related tooling caused by student misuse or unauthorized use places students at financial risk for cost of repairs. No obligation is inferred for students who have received proper authorization and instruction. Students should talk with instructors before attempting to use equipment. Failure to comply with safety precautions leads to disciplinary action. See board policy OP 76.0 Safety, Technology Education and WATC Laboratories.

Bloodborne Pathogens

Due to the threat of exposure to bloodborne pathogens, individuals should avoid contact with another person's blood or body fluids. All laboratories are equipped with emergency kits. Appropriately trained personnel should perform clean-up procedures involving blood and other potentially infectious materials. See board policy HR 19.0 Handling Blood and Body Fluids.

Hazardous Materials

WATC is responsible for providing a safe learning environment even when hazardous materials are used in the instructional process. To assure everyone's safety, it is critical that employees and students learn to identify and assume responsibility for the proper use and storage of hazardous materials. A portion of course orientations and regular instruction is devoted to informing students about hazards present in classrooms and laboratories, personal safety, protection from hazards and the location of and procedures for handling waste containers and hazardous materials. Instructors oversee the proper use and storage of hazardous materials used in their technical areas. See board policy OP 28.0 Handling of Hazardous Chemicals.

The Kansas Department of Health, Occupational Safety and Health Administration (OSHA), requires that placards and Material Safety Data Sheets (MSDS) be posted in buildings and each laboratory informing employees and students about physical and health hazards associated with products used in the workplace and during instruction. Emergency personnel also use these sheets to facilitate treatment in case of accidents and to clean up related spills or releases. MSDSs are available upon request. See board policies OP 28.0 Handling of Hazardous Chemicals and OP 58.0 Safety, Hazardous Wastes.

Possession and/or Use of Weapons

Board policy LS 14.0 Student Code of Conduct strictly prohibits the possession and/or use of weapons. Violations of this policy results in suspension or expulsion from WATC.

Individuals found to have brought, handled, transmitted or to have been in possession of a weapon, including any firearm or replica firearm, at WATC, on WATC property or at a WATC-supervised activity receive a mandatory expulsion from WATC.

Individuals found to have brought or to have been in possession of any article designed to inflict bodily harm, at WATC, on WATC property or at a WATC-supervised activity are subject to disciplinary action up to and including expulsion from WATC.

Individuals who use any article to inflict bodily harm or to place a person(s) in fear of bodily harm at WATC, on WATC property or at a WATC-supervised activity are subject to disciplinary action up to and including expulsion from WATC.

Safety Drills

Instructors give safety instructions the first week of classes. In the case of a weather emergency, instructors take students to designated areas of safety. Maps showing these designated areas are posted in each classroom and laboratory. In case of a fire alarm, students should follow their instructor who will lead them away from the building. Students who are in lounge or other unsupervised areas at the time of an alarm should follow the general flow of traffic to a safety area. See board policies OP 8.0 Weather Warnings, OP 11.0 Tornado Drills and OP 12.0 Safety, Fire Safety.

Sexual Harassment

WATC does not tolerate sexual harassment of students or employees by students, non-students, employees or non-employees (as outlined in board policies HR 1.0 Sexual Harassment of Employees and LS 1.0 Sexual Harassment of Students). Violations of these policies

result in disciplinary actions being taken against all individuals involved, including possible expulsion of students and termination of employees. Non-students or non-employees who violate these policies are reported to local law enforcement authorities for the appropriate action. Administrators who fail to follow the policies or fail to investigate complaints will also be disciplined.

Sexual Harassment of Students

Board policy LS 1.0 Sexual Harassment of Students adopts the following definition of sexual harassment regarding students:

Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when (1) submission to such conduct is made either explicitly or implicitly a term of the student's academic opportunities; (2) submission to or rejection of such conduct by a student is used as a basis for academic decisions affecting such students; or (3) such conduct has the purpose or effect of unreasonably interfering with the student's educational performance or it creates an intimidating, hostile or offensive educational environment.

Note: Conduct that has the effect of unreasonably interfering with a student's educational performance or creates an intimidating, hostile or offensive educational environment may be "sexual harassment" whether or not the person engaging in the conduct intends to create that effect.

Students who believe they have been subjected to sexual harassment should report the problem to an instructor or department chair.

Smoking/Tobacco

Board policy OP 2.0 Smoking in College-Owned Buildings strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students and employees may smoke only in the outside designated-smoking areas at each location. High school students are not permitted to use tobacco on college property.

Photo and Video Statement

Professionals hired by the college often take photographs and videos that include students in classrooms, laboratories, study areas and at events. WATC has exclusive rights to all content, and participants will not be compensated in any manner for the time or use of their name, picture or likeness. Individuals who attend WATC do so with the understanding that these photographs and videos may include them and may be used in college publications and advertisements, both printed and electronic, for publicity and advertising purposes.

Visitors

WATC encourages the public to visit its campuses. However, for the security and safety of everyone, individuals wishing to visit are asked to check in with the administrative office at each location prior to entering classrooms or laboratories. Students who wish to host visitors must confer with their instructors prior to the visitation. Students are not permitted to bring children to class or to leave them unattended in any area at WATC locations — this includes student lounges, library/resource center, restrooms and parking lots. See board policy OP 23.0 Visitors.

Board Policies

To read WATC board policies, contact any WATC administrative office, or online, go to www.watc.edu.

WATC

www.watc.edu

Catalog
2010-2011

Programs of Study

Program Locations and Descriptions

Academic Success – Tutoring

ACADEMIC SUCCESS – TUTORING

Academic Success Courses

Academic Success – Tutoring

Academic Success program assists students in mastering the necessary skills to progress with their college education. The instructional program includes tutoring, short term test preparation courses for COMPASS® and TEAS® assessments and facilitation of open learning format general education essential basic skills (EBS) courses. These courses are supported by individualized, self-paced laboratory practice. Materials and tutorial assistance are available in the laboratory to help students improve their skills and ready themselves for entry into college-level coursework.

To fulfill WATC's mission to provide relevant, technical education for employment and lifelong learning, Academic Success provides an academic safety net for the needs of two student groups:

- Those who require or desire work in pre-technical college-level competencies, such as reading, writing and math.
- Those who require or desire to improve their college experience through tutoring in a specific subject and learning enhancement activities, such as reading comprehension, study skills and personal career development.

Academic Success staff members are committed to helping students succeed in technical programs and college-level courses and to helping them prepare for lifelong success. In-person and online tutoring is available free of charge for currently registered students.

Courses may be taken to prepare for placement exams, to refresh skills prior to taking college-level courses, or they may be taken along with other college courses as reinforcement.

Academic Success Courses		Credits
ASC 006	Self-Paced WorkKeys Test Preparation	0
ASC 007	Self-Paced COMPASS Test Preparation	0
ASC 008	Self-Paced TEAS Test Preparation	0
EBS 102	Sentence Structure	1
EBS 103	Paragraph Writing	1
EBS 113	Basic Arithmetic	3

General Education Open Learning Essential Basic Skills Courses Facilitate by Academic Success		
		Credits
EBS 102	Sentence Structure	1
EBS 103	Paragraph Writing	1
EBS 113	Basic Arithmetic	3

Automotive

AUTOMOTIVE

Auto Collision Repair

Program Description

This program allows students to gain skills and knowledge in the repair, assembly and refinishing of automotive vehicles. Program includes classroom and laboratory instruction in safety, nonstructural damage repair, structural damage repair, steering, suspension and alignment, electrical systems, painting, refinishing and estimating. The Auto Collision Repair program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Automotive Collision Repair program is approved by the Kansas Board of Regents.

This program is also accredited by:
- National Automotive Technicians Education Foundation
  13505 Dulles Technology Drive, Suite 2
  Herndon, VA 20171-3421
  703.713.0100

This program is affiliated with:
- Inter-Industry Conference on Auto Collision Repair
  1342 Colonial Boulevard, Suite K-230
  Ft. Myers, FL 33907
  239.939.9667
  877.ICAR.MIG
  Fax: 239.939.9667
  E-Mail: welding@i-car.com
  Web Site: www.i-car.com

WATC is an approved I-CAR certified weld testing facility. For the most up-to-date information on the Automotive Steel GMA (MIG) and Automotive Aluminum GMA (MIG) Welding Qualification Tests, other I-CAR qualification tests and I-CAR training programs, visit I-CAR at www.i-car.com, or call 800.422.7872.

Technical Certificate		44 Credits
Technical Curriculum		
EMP 100	Global Professional Standards	2
TAC 101	Occupational Safety	1
TAC 111	Structural Damage Analysis & Repair	8
TAC 112	Refinish I	6
TAC 113	Nonstructural Damage Analysis & Repair	9
TAC 114	Steering, Suspension & Alignment	3
TAC 116	Electrical Systems	2
TAC 118	Refinish II	5
	Technical Curriculum Total	**36**
General Education Curriculum		
CED 101	Computer Essentials	2
EBS 115	Pre-Algebra Math	3
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	
	General Education Curriculum Total	**8**
	Technical Certificate Total	**44**

AUTOMOTIVE

Automotive Service Technology

Program Description

This program allows students to gain skills and knowledge to accurately diagnose, repair and service various automotive vehicles. Program includes classroom and lab instruction in safety, electrical and electronic systems, suspension and steering, engine performance, manual drive train and axles, heating and air conditioning, engine repair and brakes. Program has National Automotive Technicians Education Foundation accreditation at the secondary and postsecondary levels.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Automotive Service Technology program is approved by the Kansas Board of Regents.

The program is also accredited by:
- National Automotive Technician Education Foundation
  13505 Dulles Technology Drive, Suite 2
  Herndon, VA 20171-3421
  703.713.0100

This program is affiliated with:
- Automotive Service Association Educational Member
  7510 N. Palmer Avenue
  Kansas City, MO 64158
  816.781.5801

WATC is an approved I-CAR certified weld testing facility. For the most up-to-date information on the Automotive Steel GMA (MIG) and Automotive Aluminum GMA (MIG) Welding Qualification Tests, other I-CAR qualification tests and I-CAR training programs, visit I-CAR at www.i-car.com, or call 800.422.7872.

Certificate of Completion	15 Credits
Automotive Transmission/Transaxle	
Technical Curriculum	
TAS 124 Electrical & Electronic Systems I	4
TAS 125 Electrical & Electronic Systems II	4
TAS 126 Manual Transmission / Transaxle & Drive Train	4
TAS 200 Advanced Electronic Transmission Diagnosis	3
Certificate of Completion Total	**15**

Technical Certificate	45 Credits
Automotive Service Technology	
Technical Curriculum	
EMP 100 Global Professional Standards	2
TAS 121 Engine Repair	4
TAS 122 Automotive Brake Systems	4
TAS 123 Suspension & Steering Systems	4
TAS 124 Electrical & Electronic Systems I	4
TAS 125 Electrical & Electronic Systems II	4
TAS 126 Manual Transmission / Transaxle & Drive Train	4
TAS 127 Automatic Transmission Repair	4
TAS 128 Heating & Air Conditioning	4
TAS 131 Engine Performance I	4
TAS 132 Engine Performance II	4
Technical Curriculum Total	**42**
General Education Curriculum	
CED 101 Computer Essentials	2
EBS 115 Pre-Algebra Math	3
General Education Curriculum Total	**5**
Technical Certificate Total	**47**

Associate of Applied Science Degree	65 Credits
Automotive Service Technology	
Technical Curriculum	
EMP 100 Global Professional Standards	2
TAS 121 Engine Repair	4
TAS 122 Automotive Brake Systems	4
TAS 123 Suspension & Steering Systems	4
TAS 124 Electrical & Electronic Systems I	4
TAS 125 Electrical & Electronic Systems II	4
TAS 126 Manual Transmission / Transaxle & Drive Train	4
TAS 127 Automatic Transmission Repair	4
TAS 128 Heating & Air Conditioning	4
TAS 131 Engine Performance I	4
TAS 132 Engine Performance II	4
TAS 200 Advanced Electronic Transmission Diagnosis	3
Technical Curriculum Total	**45**
General Education Curriculum	
CED 115 Computer Applications	3
ENG 101 Composition I	3
MTH 112 College Algebra	3
PHS 110 Physical Science	5
PSY 101 General Psychology	3
SPH 101 Public Speaking	3
or	
SPH 111 Interpersonal Communication	
General Education Curriculum Total	**20**
Associate of Applied Science Degree Total	**65**

Aviation

AVIATION

Advanced Aerostructures

Program Description

The Advanced Aerostructures Technician program provides students Advanced Aerostructures program provides students with the skills and knowledge to succeed in the aircraft manufacturing and service industry. Students receive classroom instruction and shop demonstration. Instruction includes the fundamentals of blueprint reading, precision measurement, communication skills, math skills, business operations and environmental health and safety. Additional instruction includes the fundamentals of assembly, meeting manufacturing standards, use of common aircraft sheetmetal tools and sealant application. Students learn how to identify fasteners, install and remove fasteners, assemble sheetmetal components, identify and maintain proper "skin" quality and curved surface techniques.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Advanced Aerostructures program is approved by the Kansas Board of Regents.

Certificate of Completion		14 Credits
Technical Curriculum		
AER 132	Aerostructures Assembly	4
AER 133	Advanced Aerostructures	2
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 106	Aerospace Blueprint Reading	2
EMP 100	Global Professional Standards	2
	Certificate of Completion Total	**14**

Aviation

Aerospace Coatings & Paint Technology

Program Description

Aerospace Coatings & Paint Technology associate degree program is a sequence of courses designed to produce an aerospace technician with multiple skill sets, a well rounded understanding of the aerospace industry and the depth and breadth of knowledge which comes from general education courses. This program provides a broad based understanding of coating and paint processes within the aerospace industry. The curriculum includes comprehensive learning experiences in all aspects of the coating and paint industry including formulation, application and specialized areas. Students will round off their educational experience by completing 17 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Aerospace Coatings & Paint Technology program is approved by the Kansas Board of Regents.

Technical Certificate		47 Credits
Technical Curriculum		
ACP 100	Introduction to Coatings & Paint Technology	3
ACP 101	Surface Preparation & Coatings	4
ACP 102	Performance & Durability of Coatings	3
ACP 103	Color Technology	3
ACP 104	Specialized Coating Processess	3
ACP 105	Specialized Detailing	3
ACP 106	Aerospace Coatings & Materials	3
ACP 107	Aerospace Program Management	3
ACP 110	Integrated Assembly Capstone Project	
	or	
ACP 111	Technical Co-Operative Project	4
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
EMP 100	Global Professional Standards	2
	Technical Curriculum Total	**45**
General Education Curriculum		
CED 101	Computer Essentials	2
	General Education Curriculum Total	**2**
	Technical Certificate Total	**47**

Associate of Applied Science Degree		65 Credits
Technical Curriculum		
ACP 100	Introduction to Coatings & Paint Technology	3
ACP 101	Surface Preparation & Coatings	4
ACP 102	Performance & Durability of Coatings	3
ACP 103	Color Technology	3
ACP 104	Specialized Coating Processess	3
ACP 105	Specialized Detailing	3
ACP 106	Aerospace Coatings & Materials	3
ACP 107	Aerospace Program Management	3
ACP 110	Integrated Assembly Capstone Project	
	or	
ACP 111	Technical Co-Operative Project	4
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
EMP 100	Global Professional Standards	2
	Technical Curriculum Total	**45**
General Education Curruculum		
CED 115	Computer Applications	3

ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 110	Physical Science	5
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**20**
	Technical Certificate Total	**65**

AVIATION

Aerospace Fiber Optics & Data Cable Installation

Program Description

This program prepares students for employment as data cabling installers. Students are expected to obtain knowledge in the areas of basic electricity, data cabling basics, networking basics, fiber optics basics and the National Electrical Code. The courses taught in this program can transfer to other technical disciplines such as telephony, utility and manufacturing engineering. Upon completion of this program, students may become certified data cabling installers and/or fiber optics installers through the Electronics Technicians.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Data Cable Installation program is approved by the Kansas Board of Regents.

Certificate of Completion	14 Credits
Technical Curriculum	
ASF 100 Introduction to Networking	3
ASF 101 Introduction to Data Cabling	3
ASF 102 Introduction to Fiber Optics	3
ASF 103 Introduction to National Electric Code	2
AVC 100 Aerospace Safety	1
AVC 101 Applied Shop Math	2
Certificate of Completion Total	**14**

AVIATION

Aerospace Quality Control

Program Description

This Aerospace Quality Control program prepares students for careers in the field of aerospace quality control. Learning opportunities develop academic and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes specialized training in quality control processes including selection measurement, testing, test documentation of products manufactured in the aerospace industry, blueprint reading and drafting techniques.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Aerospace Quality Control program is approved by the Kansas Board of Regents.

Technical Certificate	26 Credits
Technical Curriculum	
AER 150 Assembly Overview I	1
AER 151 Electrical Overview	2
AER 153 Aerospace Blueprint Reading for Inspectors	2
AER 159 Aircraft Familiarization for Inspectors	3
AER 160 Aircraft Familiarization Laboratory for Inspectors	2
AVC 100 Aerospace Safety	1
AVC 101 Applied Shop Math	2
AVC 102 Precision Instruments	1
AVC 103 Geometric Dimensioning & Tolerancing	1
AVC 106 Aerospace Blueprint Reading	2
EMP 100 Global Professional Standards	2
Electives — Take Two Credit Hours from the Following	
AER 190 Integrated Capstone Project	2
AER 191 Quality Control Technician Internship	2
Technical Curriculum Total	**21**
General Education Curriculum	
CED 101 Computer Essentials	2
SPH 101 Public Speaking	
or	
SPH 111 Interpersonal Communication	3
General Education Curriculum Total	**5**
Technical Certificate Total	**26**

Aviation

Applied Science of Aviation Interiors

Program Description

This program is designed to meet the demands of the aviation and refurbishment industry. The courses are designed to mirror the industry from build-up shop areas to actual aircraft for installation of the interior equipment and furnishings. All courses have been developed in accordance with current industry standards.

The program prepares students with the skills and knowledge for production and installation of aviation interiors occupations. Upon completion of the program, students will have the experience to apply for entry-level jobs in the aviation industry.

Job Responsibilities: Aircraft Interior Technician's primary responsibilities include: inspecting, replacing, recovering, fabricating, upholstering and repairing ceiling, sidewall, cockpit and door panels; replacing and repairing flooring, drapes, curtains, carpeting, closets, bulkheads, washroom modules, and air conditioning ducts. They also replace passenger service units and entertainment equipment such as phones and video monitors; install placards, path lights and emergency lighting. In addition, some Aircraft Interior Technician's may make structural modifications to seats and upholstery, clean, and treat fabrics and make repairs. Students will complete their educational experience by completing 20 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Applied Science of Aviation Interiors program is approved by the Kansas Board of Regents.

Technical Certificate		42 Credits
Technical Curriculum		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
CAT 122	Enovia DMU	2
AIN 100	Hand & Power Tools	2
AIN 105	Regulatory Requirements	1
AIN 110	Aircraft Interior Installer I	4
AIN 115	Aircraft Interior Installer II	5
AIN 120	Aircraft Interior Installer III	6
AIN 125	Technical Co-Operative Project for Aviation Interior Installation or	
AIN 130	Integrated Assembly Capstone Project	4
EMP 100	Global Professional Standards	2
	Technical Curriculum Total	**40**
General Education Curriculum		
CED 101	Computer Essentials	2
General Education Curriculum Total		**2**
	Technical Certificate Total	**42**

Associate of Applied Science		60 Credits
Technical Curriculum		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
CAT 122	Enovia DMU	2
AIN 100	Hand & Power Tools	2
AIN 105	Regulatory Requirements	1
AIN 110	Aircraft Interior Installer I	4
AIN 115	Aircraft Interior Installer II	5
AIN 120	Aircraft Interior Installer III	6
AIN 125	Technical Co-Operative Project for Aviation Interior Installation or	
AIN 130	Integrated Assembly Capstone Project	4
EMP 100	Global Professional Standards	2
	Technical Curriculum Total	**40**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3

MTH 112	College Algebra	
	or	
MTH 101	Intermediate Algebra	3
PHS 110	Physical Science	5
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
General Education Curriculum Total		**20**
	Associate of Applied Science Degree Total	**60**

Aviation

Applied Science of Aviation Manufacturing

Program Description

This Applied Science of Aviation Manufacturing program is a sequence of courses designed to produce an aerospace technician with multiple skill sets and a well-rounded understanding of the aerospace industry. Students master the high-demand skills of Mechanical Assembly, Composite Fabrication and Basic Avionics. Additional coursework taken from a core set of aviation topics provides students with an in-depth perspective on the aviation industry. Topics include quality control, aerospace manufacturing and aircraft systems and components. Students can round off their educational experiences by completing 19 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Applied Science of Aviation Manufacturing program is approved by the Kansas Board of Regents.

Technical Certificate		44 Credits
Technical Curriculum		
Aerostructures		
AER 132	Aerostructures Assembly	4
AER 133	Advanced Aerostructures	2
	Aerostructures Total	**6**
Aviation Core		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
EMP 100	Global Professional Standards	2
	Aviation Core Total	**16**
Composite		
CFT 101	Introduction to Composites	2
CFT 106	Composite Finish Trim	2
CFT 107	Composite Assembly	2
CFT 130	Composite Fabrication Methods & Applications	2
	Composite Total	**8**
Avionics		
AVT 101	Basic Electricity & Electronics	3
AVT 102	Basic Electricity & Electronics Laboratory	4
AVT 103	Introduction to Avionics	3
AVT 108	Wiring & Cannon Plug Laboratory	2
	Avionics Total	**12**
	Technical Curriculum Total	**42**
General Education Curriculum		
CED 101	Computer Essentials	2
	General Education Curriculum Total	**2**
	Technical Certificate Total	**44**
Associate of Applied Science Degree		**62 Credits**
Technical Curriculum		
Aerostructures		
AER 132	Aerostructures Assembly	4
AER 133	Advanced Aerostructures	2
	Aerostructures Total	**6**
Aviation Core		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 103	Geometric Dimensioning & Tolerancing	1
AVC 104	Quality Control Concepts	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 107	Fundamentals for Aerospace Manufacturing	1
AVC 108	Aircraft Systems & Components	4
EMP 100	Global Professional Standards	2
	Aviation Core Total	**16**

Composite		
CFT 101	Introduction to Composites	2
CFT 106	Composite Finish Trim	2
CFT 107	Composite Assembly	2
CFT 130	Composite Fabrication Methods & Applications	2
	Composite Total	**8**
Avionics		
AVT 101	Basic Electricity & Electronics	3
AVT 102	Basic Electricity & Electronics Laboratory	4
AVT 103	Introduction to Avionics	3
AVT 108	Wiring & Cannon Plug Laboratory	2
	Avionics Total	**12**
	Technical Curriculum Total	**42**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 110	Physical Science	
	or	
PHS 120	General Physics I	5
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**20**
	Technical Certificate Total	**62**

Aviation

Aviation Maintenance Technology

Program Description

This program meets the requirements for students to take the exam for the airframe and powerplant mechanic certificate. The certificate authorizes the holder to approve aircraft that has undergone inspection or maintenance "for return to service". This curriculum is approved by the Federal Aviation Administration. Graduates from this program are in demand not only in the field of aviation but in other fields that require a high degree of mechanical knowledge.

Admissions Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Aviation Maintenance Technology program is approved by the Kansas Board of Regents and the Federal Aviation Administration.

Technical Certificate Airframe	70 Credits
Technical Curriculum	
All general curriculum courses must be completed before taking any Airframe or Powerplant curriculum.	
General Curriculum	
AMT 105 Technical Mathematics	2
AMT 107 Aircraft Drawings	1
AMT 109 Physics	2
AMT 111 Materials & Processes	4
AMT 113 Basic Electricity	4
AMT 115 Weight & Balance	2
AMT 117 Mechanics Privileges & Limitations	1
AMT 119 Maintenance Publications, Forms & Records	2
AMT 123 Cleaning & Corrosion Control	1
AMT 125 Fluid Lines & Fittings	1
AMT 127 Ground Operations & Service	2
AMT 131 General Review & Test	1
General Curriculum Total	**23**
Airframe I Curriculum	
AMT 108 Aircraft Coverings	2
AMT 112 Assembly & Rigging	4
AMT 153 Hydraulic & Pneumatic Power Systems	2
AMT 159 Aircraft Fuel Systems	2
AMT 167 Aircraft Welding	2
AMT 177 Wood Structures	1
AMT 179 Aircraft Sheetmetal & Non-Metallic Structures	7
AMT 183 Aircraft Finishes	2
Airframe I Curriculum Total	**22**
Airframe II Curriculum	
AMT 116 Aircraft Instrument Systems	1
AMT 120 Airframe Inspection	3
AMT 151 Aircraft Electrical Systems	6
AMT 155 Aircraft Landing Gear Systems	4
AMT 161 Fire Protection Systems	1
AMT 163 Ice & Rain Control Systems	1
AMT 165 Cabin Atmosphere Control Systems	2
AMT 169 Communication & Navigation Systems	2
AMT 173 Position & Warning Systems	1
AMT 186 Airframe Review & Test	4
Airframe II Curriculum Total	**25**
Technical Certificate Total	**70**

Technical Certificate Powerplant	70 Credits
Technical Curriculum	
All general curriculum courses must be completed before taking any Airframe or Powerplant curriculum.	
General Curriculum	
AMT 105 Technical Mathematics	2
AMT 107 Aircraft Drawings	1
AMT 109 Physics	2
AMT 111 Materials & Processes	4
AMT 113 Basic Electricity	4
AMT 115 Weight & Balance	2
AMT 117 Mechanics Privileges & Limitations	1
AMT 119 Maintenance Publications, Forms & Records	2

AMT 123	Cleaning & Corrosion Control	1
AMT 125	Fluid Lines & Fittings	1
AMT 127	Ground Operations & Service	2
AMT 131	General Review & Test	1
	General Curriculum Total	**23**

Powerplant I Curriculum

AMT 136	Propellers	4
AMT 200	Reciprocating Engines	9
AMT 204	Engine Fuel Systems	1
AMT 206	Auxiliary Power Units	1
AMT 227	Turbine Engines	8
	Powerplant I Curriculum Total	**23**

Powerplant II Curriculum

AMT 202	Engine Inspection	2
AMT 203	Powerplant Ignition Systems	3
AMT 207	Fuel Metering Systems	4
AMT 208	Engine Electrical Systems	2
AMT 211	Powerplant Cooling Systems	1
AMT 213	Lubrication Systems	3
AMT 217	Induction Systems	1
AMT 219	Powerplant Exhaust Systems	2
AMT 223	Powerplant Fire Protection Systems	1
AMT 225	Powerplant Instrument Systems	1
AMT 231	Powerplant Test & Review	4
	Powerplant II Curriculum Total	**24**
	Technical Certificate Total	**70**

Associate of Applied Science Degree — 139 Credits
Aviation Maintenance Technology

Technical Curriculum

All general curriculum courses must be completed before taking any Airframe or Powerplant curriculum.

General Curriculum

AMT 105	Technical Mathematics	2
AMT 107	Aircraft Drawings	1
AMT 109	Physics	2
AMT 111	Materials & Processes	4
AMT 113	Basic Electricity	4
AMT 115	Weight & Balance	2
AMT 117	Mechanics Privileges & Limitations	1
AMT 119	Maintenance Publications, Forms & Records	2
AMT 123	Cleaning & Corrosion Control	1
AMT 125	Fluid Lines & Fittings	1
AMT 127	Ground Operations & Service	2
AMT 131	General Review & Test	1
	General Curriculum Total	**23**

Airframe I Curriculum

AMT 108	Aircraft Coverings	2
AMT 112	Assembly & Rigging	4
AMT 153	Hydraulic & Pneumatic Power Systems	2
AMT 159	Aircraft Fuel Systems	2
AMT 167	Aircraft Welding	2
AMT 177	Wood Structures	1
AMT 179	Aircraft Sheetmetal & Non-Metallic Structures	7
AMT 183	Aircraft Finishes	2
	Airframe I Curriculum Total	**22**

Airframe II Curriculum

AMT 116	Aircraft Instrument Systems	1
AMT 120	Airframe Inspection	3
AMT 151	Aircraft Electrical Systems	6
AMT 155	Aircraft Landing Gear Systems	4
AMT 161	Fire Protection Systems	1
AMT 163	Ice & Rain Control Systems	1

AMT 165	Cabin Atmosphere Control Systems	2
AMT 169	Communication & Navigation Systems	2
AMT 173	Position & Warning Systems	1
AMT 186	Airframe Review & Test	4
	Airframe II Curriculum Total	**25**

Powerplant I Curriculum

AMT 136	Propellers	4
AMT 200	Reciprocating Engines	9
AMT 204	Engine Fuel Systems	1
AMT 206	Auxiliary Power Units	1
AMT 227	Turbine Engines	8
	Powerplant I Curriculum Total	**23**

Powerplant II Curriculum

AMT 202	Engine Inspection	2
AMT 203	Powerplant Ignition Systems	3
AMT 207	Fuel Metering Systems	4
AMT 208	Engine Electrical Systems	2
AMT 211	Powerplant Cooling Systems	1
AMT 213	Lubrication Systems	3
AMT 217	Induction Systems	1
AMT 219	Powerplant Exhaust Systems	2
AMT 223	Powerplant Fire Protection Systems	1
AMT 225	Powerplant Instrument Systems	1
AMT 231	Powerplant Test & Review	4
	Powerplant II Curriculum Total	**24**
	Technical Curriculum Total	**121**

General Education Curriculum

CED 115	Computer Applications	3
ENG 101	Composition I	3
ENG 102	Composition II	3
MTH 112	College Algebra	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**18**
	Associate of Applied Science Degree Total	**135**

AVIATION

Avionics Technology

Program Description

The Avionics Technology program prepares students to work in the field of avionics technology. Learning opportunities develop academic, technical and professional knowledge and skills required for job acquisition. The program emphasizes a combination of aircraft and avionics theory and practical application necessary for successful employment. Program graduates receive an Avionics Technology technical certificate that qualifies them as avionics technicians. Students can round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admissions Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Avionics Technology program is approved by the Kansas Board of Regents.

Technical Certificate		40 Credits
Technical Curriculum		
AVT 100	Technical Mathematics	3
AVT 101	Basic Electricity & Electronics	3
AVT 102	Basic Electricity & Electronics Lab	4
AVT 103	Introduction to Avionics	3
AVT 105	Avionics Systems & Troubleshooting	2
AVT 106	Avionics Systems & Troubleshooting Lab	2
AVT 107	Basic Communications Electronics	3
AVT 108	Wiring & Cannon Plug Lab	2
AVT 110	Aircraft Electrical, Communication & Navigation Systems (Part 1)	3
AVT 111	Aircraft Electrical, Communication & Navigation Systems (Part 1) Lab	3
AVT 112	Aircraft Electrical, Communication & Navigation Systems (Part 2)	3
AVT 113	Aircraft Electrical, Communication & Navigation Systems (Part 2) Lab	3
AVT 115	Basic Communications Electronics Lab	4
EMP 100	Global Professional Standards	2
	Technical Certificate Total	**40**
Associate of Applied Science Degree		**64 Credits**
Technical Curriculum		
AVT 100	Technical Mathematics	3
AVT 101	Basic Electricity & Electronics	3
AVT 102	Basic Electricity & Electronics Lab	4
AVT 103	Introduction to Avionics	3
AVT 105	Avionics Systems & Troubleshooting	2
AVT 106	Avionics Systems & Troubleshooting Lab	2
AVT 107	Basic Communications Electronics	3
AVT 108	Wiring & Cannon Plug Laboratory	2
AVT 110	Aircraft Electrical, Communication & Navigation Systems (Part 1)	3
AVT 111	Aircraft Electrical, Communication & Navigation Systems (Part 1) Lab	3
AVT 112	Aircraft Electrical, Communication & Navigation Systems (Part 2)	3
AVT 113	Aircraft Electrical, Communication & Navigation Systems (Part 2) Lab	3
AVT 115	Basic Communications Electronics Lab	4
AVT 120	Principles of Avionics	3
AVT 121	Test Bench Lab	3
AVT 122	Practical Electronics Technology	3
EMP 100	Global Professional Standards	2
	Technical Curriculum Total	**49**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PSY 101	General Psychology	3
SPH 101	Public Speaking or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**15**
	Associate of Applied Science Degree Total	**64**

AVIATION

Composite Technology

Program Description

This program provides students with the skills and knowledge necessary to work in various phases of the composite industry. Students receive hands-on working knowledge of the manufacturing methods and techniques used in today's composite industries. Graduates are able to manufacture, trim and finish composite components using manual lay-up methods. Students also become familiar with the materials used to create the ever-increasing number of composite components and structures.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Composite Technology program is approved by the Kansas Board of Regents.

Certificate of Completion Composite Fabrication		15 Credits
Technical Curriculum		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 106	Aerospace Blueprint Reading	2
CFT 101	Introduction to Composites	2
CFT 106	Composite Finish Trim	2
CFT 107	Composite Assembly	2
CFT 130	Composites Fabrication Methods & Applications	2
EMP 100	Global Professional Standards	2
	Certificate of Completion Total	**15**

Certificate of Completion Composite Repair		15 Credits
Technical Curriculum		
AVC 100	Aerospace Safety	1
AVC 103	Geometric Dimensioning & Tolerancing	1
CFT 140	Composite Inspection	2
CFT 141	Disassembly & Damage Removal Techniques	3
CFT 142	Composite Repair	4
CFT 143	Complex Composite Repairs	3
CFT 144	Electrical Bonding Repair	1
	Certificate of Completion Total	**15**

Technical Certificate Composite Technogy		47 Credits
Technical Curriculum		
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
AVC 105	Aircraft Familiarization	1
AVC 106	Aerospace Blueprint Reading	2
AVC 108	Aircraft Systems & Components	4
CAT 122	Enovia DMU	2
CFT 101	Introduction to Composites	2
CFT 106	Composites Finish Trim	2
CFT 107	Composites Assembly	2
CFT 130	Composites Fabrication Methods & Applications	2
CFT 140	Composite Inspection	2
CFT 141	Disassembly & Damage Removal Techniques	3
CFT 142	Composite Repair	4
CFT 143	Complex Composite Repairs	3
CFT 144	Electrical Bonding Repair	1
EMP 100	Global Professional Standards	2
LEN 100	Lean for Operations	3
MET 101	Fundamentals of Quality Control	3
	Technical Curriculum Total	**42**
General Education Curriculum		
CED 101	Computer Essentials	2
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**5**
	Technical Certificate Total	**47**

For Associate of Applied Science Degree information see Applied Science of Aviation Manufacturing on page 7.11-7.12

Aviation

Nondestructive Testing

Program Description

The Nondestructive Testing program (NDT) is a cooperative effort between WATC and the National Institute for Aviation Research (NIAR). This program produces technicians who understand NDT's role in the aerospace industry and who have mastered the American Society for Nondestructive Testing's coursework for Level I and II certification in three NDT methods, including liquid penetrant, radiography and magnetic particle inspection. Students also learn the basics of materials and processes associated with NDT technology.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 18 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Meet entrance exam requirements.

Accreditations and Affiliations

The Nondestructive Testing program is approved by the Kansas Board of Regents.

Certificate of Completion	14 Credits
Introduction to Nondestructive Testing	
Technical Curriculum	
NDT 100 Penetrant Inspection	2
NDT 101 Magnetic Particle Testing Method for NDT	3
NDT 102 Radiographic Testing Method I	3
NDT 103 Radiographic Testing Method II	3
NDT 104 Materials & Processes for NDT Technology	3
Certificate of Completion Total	**14**

Certificate of Completion	15 Credits
Advanced Nondestructive Testing	
Technical Curriculum	
NDT 110 Eddy Current Level I	3
NDT 111 Eddy Current Level II	3
NDT 112 Ultrasonic Testing Method Level I	3
NDT 113 Ultrasonic Testing Method Level II	3
NDT 114 Visual Inspection	3
Certificate of Completion Total	**15**

Technical Certificate	45 Credits
Technical Curriculum	
AVC 100 Aerospace Safety	1
AVC 101 Applied Shop Math	2
AVC 102 Precision Instruments	1
EMP 100 Global Professional Standards	2
CFT 101 Introduction to Composites	2
NDT 100 Penetrant Inspection	2
NDT 101 Magnetic Particle Testing Method for NDT	3
NDT 102 Radiographic Testing Method I	3
NDT 103 Radiographic Testing Method II	3
NDT 104 Materials & Processes for NDT Technology	3
NDT 110 Eddy Current Level I	3
NDT 111 Eddy Current Level II	3
NDT 112 Ultrasonic Testing Method Level I	3
NDT 113 Ultrasonic Testing Method Level II	3
NDT 114 Visual Inspection	3
NDT 116 Bond Testing for NDT	3
NDT 117 Assembly Overview for NDT	3
Technical Curriculum Total	**43**
General Education Curriculum	
CED 101 Computer Essentials	2
General Education Curriculum Total	**2**
Technical Certificate Total	**45**

Associate of Applied Science Degree		63 Credits
AVC 100	Aerospace Safety	1
AVC 101	Applied Shop Math	2
AVC 102	Precision Instruments	1
EMP 100	Global Professional Standards	2
CFT 101	Introduction to Composites	2
NDT 100	Penetrant Inspection	2
NDT 101	Magnetic Particle Testing Method for NDT	3
NDT 102	Radiographic Testing Method I	3
NDT 103	Radiographic Testing Method II	3
NDT 104	Materials & Processes for NDT Technology	3
NDT 110	Eddy Current Level I	3
NDT 111	Eddy Current Level II	3
NDT 112	Ultrasonic Testing Method Level I	3
NDT 113	Ultrasonic Testing Method Level II	3
NDT 114	Visual Inspection	3
NDT 116	Bond Testing for NDT	3
NDT 117	Assembly Overview for NDT	3
	Technical Curriculum Total	**43**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 110	Physical Science	5
SOC 101	Principles of Sociology	
	or	
PSY 101	General Psychology	3
SPH 111	Interpersonal Communications	
	or	
SPH 101	Public Speaking	3
	General Education Curriculum Total	**20**
	Associate of Applied Science Degree Total	**63**

Business and Technology

BUSINESS AND TECHNOLOGY

Administrative Office Technology (online)

Program Description

The Administrative Office Technology associate of applied science (AAS) degree program prepares students for a variety of positions in current business, administrative and professional fields. Degree holders prove competence in all aspects of a modern office environment as well as critical-thinking skills necessary to prove agility in today's fast-paced business world. Graduates have the skills to take the Microsoft Certified Specialist Certification for Microsoft Word 2007. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credit hours of core education courses in five areas of study, including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Administrative Office Technology program is approved by the Kansas Board of Regents.

Associate of Applied Science Degree		65 Credits
Technical Curriculum		
BUS 106	Office Procedures	3
BUS 121	Business Communications	3
BUS 125	Business Law	3
CED 107	Database & File Management	3
CED 108	Word Processing	3
OPM 115	Introduction to Project Management	3
	Elective	5
	Technical Curriculum Total	**23**
General Education Curriculum		
ACC 105	Fundamentals of Accounting	3
ART 100	Art Appreciation	3
BUS 130	Personal Finance	3
BUS 200	Principles of Management	3
BUS 104	Introduction to Business	3
CED 115	Computer Applications	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
ENG 120	Composition II	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
Electives — Take One of the Following		
BIO 110	Principles of Biology	5
CHM 110	General Chemistry	5
PHS 110	Physical Science	5
	General Education Curriculum Total	**42**
	Associate of Applied Science Degree Total	**65**

Business and Technology

Business Administration

Program Description

The Business Administration program is designed to provide students with the skills necessary for entry-level employment or advancement within a variety of career fields in the public and private sectors. The two-year program prepares students for career opportunities as department and division managers, product managers, production line supervisors, assistant store managers and entry-level banking and sales representatives. Students receive training in the areas of accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of core general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Challenges within the economy have made it important that companies have employees who have the skills to read, create and interpret financial statements. Students with an emphasis in Accounting learn the processes for analyzing and reporting the economic activities of organizations.

Recent turmoil within the financial services industry has created a need for business people who can accurately analyze risk of the borrower and the saver. An emphasis in Banking and Finance prepares students for a successful career in the financial services and retail banking sectors.

Operations management oversees the workforce, materials and mechanical or technical logistics of the production process. An emphasis in Operations Management gives students the skills to handle production scheduling, employee staffing, maintenance of equipment, quality control and inventory control.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Business Administration program is approved by the Kansas Board of Regents.

Technical Certificate Accounting		40 Credits
Technical Curriculum		
ACC 104	Computerized Accounting	3
ACC 152	Payroll Accounting	3
BAF 105	Introduction to US Financial System	3
BUS 130	Personal Finance	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**19**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
	General Education Curriculum Total	**21**
	Technical Certificate Total	**40**

Associate of Applied Science Degree Accounting		63 Credits
Technical Curriculum		
ACC 104	Computerized Accounting	3
ACC 152	Payroll Accounting	3
BAF 105	Introduction to US Financial System	3
BUS 130	Personal Finance	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
	Technical Curriculum Total	**16**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	Natural Science Choice	5
	General Education Curriculum Total	**47**
	Associate of Applied Science Degree Total	**63**

Technical Certificate	40 Credits
Banking & Finance	

Technical Curriculum

BAF 103	Finance	3
BAF 105	Introduction to US Financial System	3
BAF 121	Introduction to Bank Management	3
BUS 130	Personal Finance	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**19**

General Education Curriculum

ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
	General Education Curriculum Total	**21**
	Technical Certificate Total	**40**

Associate of Applied Science Degree	63 Credits
Banking & Finance	

Technical Curriculum

BAF 103	Finance	3
BAF 105	Introduction to US Financial System	3
BAF 121	Introduction to Bank Management	3
BUS 130	Personal Finance	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**16**

General Education Curriculum

ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	Natural Science Choice	5
	General Education Curriculum Total	**47**
	Associate of Applied Science Degree Total	**63**

Certificate of Completion	14 Credits
E-Marketing	

Technical Curriculum

BMT 101	Optimize Your Website—Beginning Search Engine Optimization (SEO)	1
BMT 105	Online Advertising—Beginning Google Adwords	1
BMT 110	Blogging for Your Business	1
BMT 115	Beginning E-Mail Marketing	1
BMT 120	Social Media Madness	1
BUS 140	Principles of Marketing	3
OPM 115	Introduction to Project Management	3
PHR 105	Negotiations & Relationship Management	3
	Certificate of Completion Total	**14**

Certificate of Completion	15 Credits
Operations Management	

Technical Curriculum

OPM 100	Lean Sigma	3
OPM 105	Operations Management for Organizational Success	3
OPM 110	Introduction to Supply Chain Management	3
OPM 115	Introduction to Project Management	3
PHR 105	Negotiations & Relationship Management	3
	Certificate of Completion Total	**15**

Technical Certificate	40 Credits
Operations Management & Supervision	

Technical Curriculum

LEN 100	Lean for Operations	3
MGT 106	Introduction to Human Resources	3
OPM 105	Operation Management for Organizational Success	3
OPM 110	Introduction to Supply Chain Management	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**19**

General Education Curriculum

ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
	General Education Curriculum Total	**21**
	Technical Certificate Total	**40**

Associate of Applied Science Degree Operations Management & Supervision		63 Credits
Technical Curriculum		
LEN 100	Lean for Operations	3
OPM 105	Operations Management for Organizational Success	3
OPM 110	Introduction to Supply Chain Management	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**16**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	Natural Science Choice	5
	General Education Curriculum Total	**47**
	Associate of Applied Science Degree Total	**63**

Certificate of Completion Six Sigma		13 Credits
Technical Curriculum		
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
PSS 105	Six Sigma Green Belt Statistics	3
PSS 115	Six Sigma Black Belt Methods	3
PSS 120	Six Sigma Black Belt Experimentation & Transfer Function	3
	Certificate of Completion Total	**13**

Technical Certificate Six Sigma		43 Credits
Technical Curriculum		
OPM 105	Operations Management for Organizational Success	3
OPM 110	Introduction to Supply Chain Management	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
PSS 105	Six Sigma Green Belt Statistics	3
PSS 115	Six Sigma Black Belt Methods	3
PSS 120	Six Sigma Black Belt Experimentation & Transfer Function	3
	Technical Curriculum Total	**22**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
	General Education Curriculum Total	**21**
	Technical Certificate Total	**43**

Associate of Applied Science Degree Six Sigma		63 Credits
Technical Curriculum		
OPM 105	Operations Management for Organizational Success	3
OPM 110	Introduction to Supply Chain Management	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
PSS 105	Six Sigma Green Belt Statistics	3
PSS 110	Six Sigma Black Belt Methods	3
PSS 120	Six Sigma Black Belt Experimentation & Transfer Function	3
	Technical Certificate Total	**22**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	Natural Science Choice	5
	General Education Curriculum Total	**41**
	Associate of Applied Science Degree Total	**63**

BUSINESS AND TECHNOLOGY

Entrepreneurship

Program Description

Starting a business is the dream of millions and may be the best path to personal and economic satisfaction. This program is designed to provide the vital skills and techniques required for success as an entrepreneur. Students receive training in the areas of entrepreneurship, Six Sigma, accounting, marketing, management, economics and finance. Students round off their educational experience by completing 20 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 16 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Meet entrance exam requirements.

Accreditations and Affiliations

The Entrepreneurship program is approved by the Kansas Board of Regents.

Certificate of Completion		13 Credits
Technical Curriculum		
ENT 110	Introduction to Entrepreneurship	3
ENT 115	Entrepreneurship II	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Certificate of Completion Total	**13**
Technical Certificate		**40 Credits**
Technical Curriculum		
ENT 110	Introduction to Entrepreneurship	3
ENT 115	Entrepreneurship II	3
OPM 115	Introduction to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**13**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction to Business	3
BUS 125	Business Law	3
BUS 130	Personal Finance	3
BUS 140	Principles of Marketing	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
	General Education Curriculum Total	**27**
	Technical Certificate Total	**40**
Associate of Applied Science Degree		**63 Credits**
Technical Curriculum		
ENT 110	Introduction To Entrepreneurship	3
ENT 115	Entrepreneurship II	3
OPM 115	Introductions to Project Management	3
PSS 100	Six Sigma Yellow Belt	1
PSS 101	Six Sigma Green Belt Methods	3
	Technical Curriculum Total	**13**
General Education Curriculum		
ACC 130	Managerial Accounting	3
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
BUS 104	Introduction To Business	3
BUS 125	Business Law	3
BUS 140	Principles of Marketing	3
BUS 200	Principles of Management	3
CED 115	Computer Applications	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHL 110	Ethics	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	Natural Science Choice	5
	General Education Curriculum Total	**50**
	Associate of Applied Science Degree Total	**63**

Design Technology

DESIGN TECHNOLOGY

Architectural Design Technology

Program Description

Architectural Design Technology is an interdisciplinary curriculum which prepares graduates to for careers in commercial and/or residential architectural fields. In a state of the art computer lab at the National Center for Aviation Training (NCAT) students will solve the real world architectural problems they will encounter in the field. Students will complete a core set of courses which include hands on application in the latest computer aided drafting software as well as CATIA. Additional course topics include Machine Drafting and Design and Materials and Processes. Students will round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 16 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Meet entrance exam requirements.

Accreditations and Affiliations

The Architectural Design Technology program is approved by the Kansas Board of Regents.

Certificate of Completion Chief Architect		13 Credits
Technical Curriculum		
EMP 100	Global Professional Standards	2
MCD 112	Industrial Materials & Processes	2
MCD 132	Basic Chief Architect / Architectural Desktop	3
MCD 134	Advanced Chief Architect/Architectural Desktop	3
MTH 101	Intermediate Algebra	3
	Certificate of Completion Total	**13**

Technical Certificate Architectural Design Technology		43 Credits
Technical Curriculum		
EMP 100	Global Professional Standards	2
MCD 112	Industrial Materials & Processes	2
MCD 113	Technical Drafting	3
MCD 114	Architectural Drafting & Design	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 122	Architectural CAD	4
MCD 124	Advanced AutoCAD	4
MCD 132	Basic Chief Architect / Architectural Desktop	3
MCD 134	Advanced Chief Architect / Architectural Desktop	3
	Technical Curriculum Total	**35**
General Education Curriculum		**22**
CED 101	Computer Essentials	2
MTH 101	Intermediate Algebra	3
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**8**
	Technical Certificate Total	**43**

Associate of Applied Science Degree Architectural Design Technology	60 Credits
Technical Curriculum	
EMP 100 Global Professional Standards	2
MCD 112 Industrial Materials & Processes	2
MCD 113 Technical Drafting	3
MCD 114 Architectural Drafting & Design	3
MCD 115 Machine Drafting & Design	3
MCD 116 Introduction to CAD	5
MCD 121 Descriptive Geometry	3
MCD 122 Architectural CAD	4
MCD 124 Advanced AutoCAD	4
MCD 132 Basic Chief Architect / Architectural Desktop	3
MCD 134 Advanced Chief Architect / Architectural Desktop	3
MCD 140 Drafting Technology Internship	4
or	
CAT 101 CATIA Part Design & Sketcher	
MCD 205 Residential Drafting	3
MCD 206 Commercial Drafting & Design	3
Technical Curriculum Total	**45**
General Education Curriculum	
CED 115 Computer Applications	3
ENG 101 Composition I	3
MTH 112 College Algebra	3
PSY 101 General Psychology	3
or	
SOC 101 Principles of Sociology	
SPH 101 Public Speaking	3
or	
SPH 111 Interpersonal Communication	
General Education Curriculum Total	**15**
Associate of Applied Science Degree Total	**60**

DESIGN TECHNOLOGY

Engineering Design Technology

Program Description

Engineering Design Technology is an interdisciplinary curriculum that prepares graduates for a variety of positions in manufacturing design. All students complete a core set of courses selected to provide a well-rounded understanding of design. This program also allows students to select a focus for their design studies from two different tracks — Mechanical Design or Mechanical Engineering Design. Topics include hands-on instruction in current technical competency areas including Computer Aided Drafting (CAD), Machine and Tool Design, Computer Numerical Control (CNC), Electrical Design, 3–D Solid Modeling, CATIA and ENOVIA LCA. CATIA and ENOVIA courses are taught in conjunction with the National Institute of Aviation Research (NIAR). Students can round off their educational experience by completing 15 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Mechanical Design

This track provides a broad base for machining design students that includes coursework in Industrial Materials, Technical Drafting, Machine Drafting and Design, CAD and CATIA introductory courses.

Mechanical Engineering Design

This track focuses on engineering design utilizing CATIA. Coursework takes students from using introductory workbenches in CATIA design to mastering ENOVIA LCA to integrate CAD and CATIA sources into design creation.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Engineering Design Technology program is approved by the Kansas Board of Regents.

Certificate of Completion AutoCAD		14 Credits
Technical Curriculum		
EMP 100	Global Professional Standards	2
MCD 116	Introduction to CAD	5
MCD 124	Advanced AutoCAD	4
	Technical Curriculum Total	**11**
General Education Curriculum		
MTH 101	Intermediate Algebra	3
	Certificate of Completion Total	**14**

Certificate of Completion CATIA Mechanical Design		15 Credits
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 102	CATIA Drafting	4
CAT 105	CATIA Assembly Design	4
CAT 120	CATIA ENOVIA LCA	3
	Certificate of Completion Total	**15**

Technical Certificate Mechanical Design Technology		43 Credits
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
EMP 100	Global Professional Standards	2
MCD 110	Principles of Tool Design	2
MCD 112	Industrial Materials & Processes	2
MCD 113	Technical Drafting	3
MCD 114	Architectural Drafting & Design	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 124	Advanced AutoCAD	4
	Technical Curriculum Total	**35**
General Education Curriculum		
CED 101	Computer Essentials	2
MTH 101	Intermediate Algebra	3
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	
	General Education Curriculum	**8**
	Technical Certificate Total	**43**

Associate of Applied Science Degree Mechanical Design Technology		62–66 Credits
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
EMP 100	Global Professional Standards	2
MCD 110	Principles of Tool Design	2
MCD 112	Industrial Materials & Processes	2
MCD 113	Technical Drafting	3
MCD 114	Architectural Drafting & Design	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 124	Advanced AutoCAD	4
MCD 140	Drafting Technology Internship	4
MCD 201	Geometric Dimensioning & Tolerance	3
Electives — Take One of the Following		
CWG 110	Welding Applications	4
CAT 102	CATIA Drafting	4
CAT 110	CATIA Wireframe & Surfaces	4
CAT 115	CATIA Prismatic Machining	4
	Technical Curriculum Total	**46**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PSY 101	General Psychology	3
	or	
SOC 101	Principles of Sociology	
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	
	General Education Curriculum Total	**15**
	Associate of Applied Science Degree Total	**61**

Technical Certificate Mechanical Engineering Design Technology		44 Credits
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 102	CATIA Drafting	4
CAT 105	CATIA Assembly Design	4
CAT 110	CATIA Wireframe & Surfaces	4
EMP 100	Global Professional Standards	2
MCD 110	Principles of Tool Design	2
MCD 113	Technical Drafting	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 124	Advanced AutoCAD	4
	Technical Curriculum Total	**38**
General Education Curriculum		
MTH 101	Intermediate Algebra	3
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	
	General Education Curriculum Total	**6**
	Technical Certificate Total	**44**

Associate of Applied Science Degree Mechanical Engineering Design Technology		62 Credits
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 102	CATIA Drafting	4
CAT 105	CATIA Assembly Design	4
CAT 110	CATIA Wireframe & Surfaces	4
CAT 115	CATIA Prismatic Machining	4
EMP 100	Global Professional Standards	2
MCD 110	Principles of Tool Design	2
MCD 113	Technical Drafting	3
MCD 115	Machine Drafting & Design	3
MCD 116	Introduction to CAD	5
MCD 121	Descriptive Geometry	3
MCD 124	Advanced AutoCAD	4
	Technical Curriculum Total	**42**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 120	General Physics I	5
	or	
PHS 110	Physical Science	
PSY 101	General Psychology	3
	or	
SOC 101	Principles of Sociology	
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communications	
	General Education Curriculum Total	**20**
	Associate of Applied Science Degree Total	**62**

DESIGN TECHNOLOGY

Interior Design

Program Description

This Interior Design program provides competency-based training in research techniques, problem solving, proficiencies and presentation skills required to be a successful professional interior designer. The program focueses on creativity and critical thinking. Students learn the basics of interior design, including the principles and elements of desigh; bluprint reading; building technology; color theory; materials; fabrics; history of furniture and architecture; lighting technologies; drawing for interiros; and business law for interiors. Students also gain practical experience, and throught out the program, they build a professional portfolio. Students completing the degree are eligible to take the national exam to become a licensed interior designer after appropriate completion of work experience as required by the National Council of Interior Design Qualifications (NCIDQ).

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Interior Design program is approved by the Kansas Board of Regents.

The program is approved by:
- American Society for Interior Designers
  608 Massachusetts Avenue NE
  Washington, DC 20026
  www.asid.org

This program qualifies for:
- National Council for Interior Designers Qualifications
  1602 L Street, Suite 200
  Washington, DC 20036-2506
  www.ncidq.org

Certificate of Completion	4 Credits
Floral Design	
Technical Curriculum	
INT 201 Floral Design	4
Certificate of Completion Total	**4**

Certificate of Completion	8 Credits
Painted & Faux Finishes	
Technical Curriculum	
INT 110 Color Theory	2
INT 130 Painted & Faux Finishes I	3
INT 135 Painted & Faux Finishes II	3
Certificate of Completion Total	**8**

Technical Certificate	33 Credits
Kitchen & Bath Design	
Technical Curriculum	
EMP 100 Global Professional Standards	2
INT 101 Interior Design Fundamentals	2
INT 105 Blueprint Reading for Interior Design	2
INT 110 Color Theory	2
INT 125 Materials & Resources II	2
INT 155 Lighting Technologies	3
INT 170 Business Practices & Portfolio Development	3
INT 190 Drafting for Interiors	2
INT 215 Kitchen & Bath Design	3
INT 225 Advanced Kitchen & Bath Design	3
INT 235 Computer Technologies for Kitchen & Bath	3
INT 245 Internship for Kitchen & Bath Design	3
MCD 116 Introduction to CAD	5
Technical Curriculum Total	**35**
General Education Curriculum	
MTH 101 Intermediate Algebra	3
SPH 101 Public Speaking	3
General Education Total	**6**
Technical Certificate Total	**41**

Associate of Applied Science Degree Interior Design	68 Credits
Technical Curriculum	
INT 101 Interior Design Fundamentals	2
INT 105 Blueprint Reading for Interior Design	2
INT 110 Color Theory	2
INT 120 Materials & Resources I	3
INT 125 Materials & Resources II	2
INT 145 History of Furniture & Architecture I	3
INT 150 History of Furniture & Architecture II	3
INT 155 Lighting Technologies	3
INT 160 Design Studio I	3
INT 165 Design Studio II	2
INT 170 Business Practices & Portfolio Development	3
INT 175 Seminars for Interior Design	2
INT 185 Mentorship	3
INT 190 Drafting for Interiors	2
INT 196 Interior Design Codes & Standards	3
MCD 116 Introduction to CAD	5
Electives	4
Technical Curriculum Total	**47**
Electives — Take Six Credit Hours from the Following	
INT 100 Accessories	1
INT 130 Painted & Faux Finishes I	3
INT 135 Painted & Faux Finishes II	3
INT 201 Floral Design	4
INT 215 Kitchen & Bath Design	3
INT 225 Advanced Kitchen & Bath Design	3
INT 235 Computer Technologies for Kitchen & Bath	3
INT 245 Internship for Kitchen & Bath Design	3
MCD 132 Basic Chief Architecture / Architectural Desktop	3
General Education Curriculum	
ART 100 Art Appreciation	3
CED 115 Computer Applications	3
ENG 101 Composition I	3
MTH 112 College Algebra	3
PSY 101 General Psychology	3
SPH 101 Public Speaking	3
General Education Curriculum Total	**18**
Associate of Applied Science Degree Total	**65**

General Education

GENERAL EDUCATION

General Education Courses

Program Description

General Education courses are available for students who would like to begin their college education with a more personal and affordable option to private schools and state universities. Students can complete lower-level courses at WATC before transferring on to a four-year college or university. General education courses are also included in all WATC associate degree programs to provide students a well-rounded curriculum while preparing for a technical career.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission
• Show documentation of high school graduation or satisfaction of high school equivalency
• Meet individual course requirements. Some courses require an assessment score or prerequisite courses.

Accreditations and Affiliations

WATC is fully accredited by the Higher Learning Commission of the North Central Association. Accordingly, general education courses are fully eligible for transfer to other institutions.

General Education Courses		Credits
ACC 105	Fundamentals of Accounting	3
ACC 120	Accounting with Computers(QuickBooks)	3
ACC 130	Managerial Accounting	3
ACC 152	Payroll Accounting	2
ACC 160	Principles of Accounting I	3
ACC 170	Principles of Accounting II	3
ALH 101	Medical Terminology	3
ALH 105	First Aid & CPR	3
ALH 110	Principles of Nutrition	3
ALH 115	Pharmacology	3
ALH 130	Emergency Preparedness for Health Professionals	1
ALH 135	Spanish Language for Health Care Providers	1
ALH 145	Therapeutic Nutrition	3
ART 100	Art Appreciation	3
BAF 103	Finance	3
BAF 105	Introduction to US Financial System	3
BIO 100	Biology Review	1
BIO 110	Principles of Biology	5
BIO 150	Human Anatomy & Physiology	5
BIO 160	Microbiology	5
BUS 104	Introduction to Business	3
BUS 106	Office Procedures	3
BUS 121	Business Communications	3
BUS 125	Business Law	3
BUS 130	Personal Finance	3
BUS 140	Principles of Marketing	3
BUS 160	Human Relations	3
BUS 200	Principles of Management	3
CED 101	Computer Essentials	3
CED 115	Computer Applications	3
CED 120	Advanced Computer Applications	3
CHM 100	Chemistry Review	1
CHM 110	General Chemistry	5
CHM 125	Chemistry I	5
CHM 135	Chemistry II	5
EBS 100	Reading Foundations	3
EBS 101	College Reading Skills	3
EBS 102	Sentence Structure	1
EBS 103	Paragraph Writing	1
EBS 105	Becoming a Master Student	3
EBS 110	English	3
EBS 113	Basic Arithmetic	3
EBS 114	Pre-Algebra with Review	5
EBS 115	Pre-Algebra	3
EBS 120	Elementary Algebra	3
ECO 105	Principles of Macroeconomics	3
ECO 110	Principles of Microeconomics	3
ENG 101	Composition I	3
ENG 120	Composition II	3
ENT 110	Introduction to Entrepreneurship	3
ENT 115	Entrepreneurship II	3
MGT 106	Introduction to Human Resources	3
MTH 101	Intermediate Algebra	3
MTH 102	Intermediate Algebra With Review	5

General Education

General Education Courses

MTH 112	College Algebra	3
MTH 113	Trigonometry	3
MTH 115	Pre-Calculus	5
MTH 120	Elementary Statistics	3
MTH 125	Calculus I	5
MTH 150	Calculus II	5
PED 110	Lifetime Fitness	1
PHL 110	Ethics	3
PHS 110	Physical Science	5
PHS 120	General Physics I	5
PHS 125	General Physics II	5
PHS 130	Engineering Physics I	5
PHS 135	Engineering Physics II	5
PSY 101	General Psychology	3
PSY 120	Developmental Psychology	3
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
SPH 111	Interpersonal Communication	3

Health Sciences

HEALTH SCIENCES

Activity Director / Social Services Designee

Program Description

The Activity Director section teaches students how to plan and implement a comprehensive activity program in a long-term care setting based on the physical and social needs of the resident.

The Social Services Designee section assists the licensed social worker with orientation of residents and families to the facility, participation in care planning and maintenance of accurate records. This course combines the two disciplines to give the employer a cross-trained employee.

Admissions Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 18 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Possess a current Kansas Certified Nurse Aide certificate.
• Meet entrance exam requirements.

Accreditations and Affiliations

The Activity Director/Social Services Designee program is approved by the Kansas Board of Regents.

Certificate of Completion	3 Credits
Technical Curriculum	
GRA 116 Activity Director / Social Services Designee	3
Certificate of Completion Total	**3**

HEALTH SCIENCES

Certified Medication Aide

Program Description

The Certified Medication Aide course focuses on the knowledge and skills needed for safe medication administration in long-term facilities. Graduates are eligible to take the Kansas certification examination to become certified. This course builds upon the role of a certified nurse aide (CNA) and includes accurately measuring, administering and documenting medications to residents.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Awkward position
- Balancing
- Color vision
- Crouching
- Depth perception
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Reaching
- Smelling
- Speaking
- Standing/moving about
- Stooping
- Twisting

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotions
- Ability to handle conflict
- Ability to organize materials
- Careful attention to detail
- Concentrating on task
- Dealing with diverse populations
- Fast reaction time
- Handling multiple priorities
- Making decisions with limited information
- Making non-routine judgments
- Performing tasks during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Reasoning— applying procedures
- Reporting to multiple supervisors
- Using diplomacy and tact

Individuals in this position are required to carry or lift weights in this range:
- 25–50 pounds

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Use of electrical equipment
- Use of sharp utensils
- Wet work — hands

Certificate of Completion	5 Credits
Technical Curriculum	
GRA 119 Medication Aide	5
Certificate of Completion Total	**5**

Admissions Requirements

In addition to the college's admissions policy, students must:
- Be 16 years of age or older.
- Successfully complete preadmission testing.
- Provide documentation of a negative PPD TB skin test within the last six months or negative chest X-ray within the last three years.
- Possess a current Kansas Certified Nurse Aide certificate.
- CNAs and medication aides must pay for and pass a criminal background check – must be completed prior to first day of classes.

Note: Beginning July 1, 1998, persons who have been found guilty of a felony related to crimes against a person may be denied employment in adult care homes and home health agencies (KSA 39-970 and KSA 65-5117). Visit www.kdhe.state.ks.us/hoc for a list of prohibited offenses, or call Melinda Reynard-Lindsay, 785.296.8628.

Accreditations/Affiliations

The Certified Medication Aide program is approved by the Kansas Board of Regents.

The program is also approved by:
- Kansas Department of Health and Environment
1000 SW Jackson, Suite 200
Topeka, KS 66212-1365
785.296.0056

HEALTH SCIENCES

Certified Nurse Aide

Program Description

The Certified Nurse Aide (CNA) program prepares students to be caregivers in nursing homes while working under the supervision of licensed nurses. The instruction includes classroom, laboratory and clinical experiences. Students must successfully complete a competency skills checklist, maintain attendance as defined in the course syllabus and achieve satisfactory grades. Daytime classes meet daily for approximately five weeks, and evening classes meet two to three times a week for approximately three months. The program meets the guidelines of the Kansas Department of Health and Environment, and graduates may take the state examination to become CNAs after successful completion of the course.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Awkward position
- Balancing
- Color vision
- Crouching
- Depth perception
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Reaching
- Smelling
- Speaking
- Standing/moving about
- Stooping
- Twisting

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotions
- Ability to handle conflict
- Ability to organize materials
- Careful attention to detail
- Concentrating on task
- Dealing with diverse populations
- Fast reaction time
- Handling multiple priorities
- Making decisions with limited information
- Making non-routine judgments
- Performing tasks during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Reasoning— applying procedures
- Reporting to multiple supervisors
- Using diplomacy and tact

Individuals in this position are required to carry or lift weights in this range:
- 25–50 pounds

Certificate of Completion	5 Credits
GRA 101 Certified Nurse Aide	5
Certificate of Completion Total	**5**

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Use of electrical equipment
- Use of sharp utensils
- Wet work—hands

Admissions Requirements

In addition to the college's admissions policy, students must:
- Be 16 years of age or older.
- Successfully complete preadmission testing.
- Provide documentation of a negative PPD TB skin test within the last six months or negative chest X-ray within the last three years.
- CNAs and medication aides must pay for and pass a criminal background check – must be completed prior to first day of classes.

Note: Beginning July 1, 1998, persons who have been found guilty of a felony related to crimes against a person may be denied employment in adult care homes and home health agencies (KSA 39-970 and KSA 65-5117). Visit www.kdhe.state.ks.us/hoc for a list of prohibited offenses, or call Melinda Reynard-Lindsay, 785.296.8628.

Accreditations/Affiliations

The Certified Nurse Aide program is approved by the Kansas Board of Regents.

The program is also approved by:
- Kansas Department of Health and Environment
  1000 SW Jackson, Suite 200
  Topeka, KS 66212-1365
  785.296.0056

Health Sciences

Dental Assistant

Program Description

This program provides the educational environment and experiences to prepare for employment as a dental assistant. The program graduate has the knowledge and skills necessary to assist during the delivery of dental care, perform supportive treatment procedures and basic business office tasks. Graduates may take the Dental Assisting National Board examination to become a Certified Dental Assistant (CDA).

Students may request consideration for advanced placement by submitting an official transcript of coursework. This program does not offer credit for experiential learning.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement.

- Accommodation
- Awkward position
- Color vision
- Depth perception
- Feeling
- Fingering (manipulative finger movements)
- Flexing or rotating wrists
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Reaching
- Repetitive movement
- Sitting
- Speaking
- Standing
- Stooping
- Twisting

The following mental and communicative activities are essential to the performance of this position:

- Ability to handle stress and emotions
- Ability to organize materials
- Ability to remember procedures and instructions
- Careful attention to detail
- Concentrating on task
- Dealing with angry people
- Dealing with diverse populations
- Fast reaction time
- Handling conflict
- Handling multiple priorities
- Performing task during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Public contact
- Reasoning — applying procedures
- Using diplomacy and tact

Individuals in this position are required to carry or lift weights in this range:

- 10–25 pounds

Technical Certificate		44 Credits
Technical Curriculum		
DAS 102	Fundamentals in Dental Assisting I	3
DAS 107	Anatomy for Dental Assistants	1
DAS 108	Dental Health Education	2
DAS 111	Fundamentals in Dental Assisting II	2
DAS 112	Dental Materials I	3
DAS 115	Chairside Assisting I	4
DAS 118	Dental Radiology I	2
DAS 119	Dental Anatomy	2
DAS 125	Dental Science I	2
DAS 129	Dental Science II	1
DAS 132	Dental Materials II	2
DAS 135	Chairside Assisting II	3
DAS 138	Dental Radiology II	2
DAS 142	Dental Office Procedures	2
DAS 143	Dental Materials III	1
DAS 144	Clinical Experience I	4
DAS 145	Chairside Assisting III	1
DAS 155	Chairside Assisting IV	1
DAS 156	Clinical Experience II	4
	Technical Curriculum Total	**42**
General Education Curriculum		
CED 101	Computer Essentials	2
	General Education Curriculum Total	**2**
	Technical Certificate Total	**44**

Associate of Applied Science Degree		64 Credits
Technical Curriculum		
DAS 102	Fundamentals in Dental Assisting I	3
DAS 107	Anatomy for Dental Assistants	1
DAS 108	Dental Health Education	2
DAS 111	Fundamentals in Dental Assisting II	2
DAS 112	Dental Materials I	3
DAS 115	Chairside Assisting I	4
DAS 118	Dental Radiology I	2
DAS 119	Dental Anatomy	2
DAS 125	Dental Science I	2
DAS 129	Dental Science II	1
DAS 132	Dental Materials II	2
DAS 135	Chairside Assisting II	3
DAS 138	Dental Radiology II	2
DAS 142	Dental Office Procedures	2
DAS 143	Dental Materials III	1
DAS 144	Clinical Experience I	4
DAS 145	Chairside Assisting III	1
DAS 155	Chairside Assisting IV	1
DAS 156	Clinical Experience II	4
DAS 214	Supragingival Scaling	4
	Technical Curriculum Total	**46**

Individuals in this position are exposed to:
- Bloodborne pathogens
- Chemical hazards (skin irritants)
- Respiratory hazards
- Vibrating equipment
- Use of sharp instruments
- Latex

Admission Requirements

In addition to the college's admissions policy, students must:
- Complete a college-level Introduction to MS Office course. Credit may be transferred by official transcript from any accredited institution. See Transfer of Credit section in catalog.
- Be 17 years of age or older.
- Attend an information session prior to registration.
- Successfully complete preadmission testing.
- Upon acceptance, complete necessary health examinations, immunizations and pass a drug-screen test at their own expense prior to the first day of courses.
- Possess current American Heart Association CPR for Healthcare Providers certification prior to start of second-semester courses.

Accreditations/Affiliations

The Dental Assistant program is approved by the Kansas Board of Regents.

The program is also accredited by:
- Commission on Dental Accreditation
  of the American Dental Association
  211 E. Chicago Avenue
  Chicago, IL 60611-2678
  312.440.4653

General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**18**
	Associate of Applied Science Degree Total	**64**

Health Sciences

Emergency Medical Technician–Basic

Program Description

The Emergency Medical Technician (EMT)—Basic program introduces students to the EMT profession. The course covers the material, skills and techniques currently considered the responsibility of EMT—Basic according to the United States Department of Transportation National Standard Curriculum. The program consists of didactic instruction, practical skills and clinical experience.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Emergency Medical Technician—Basic program is approved by the Kansas Board of Regents.

The program is also accredited by:
- Sedgwick County, Kansas, Emergency Medical Services
  1015 Stillwell
  Wichita, KS 67213

- Kansas Board of Emergency Medical Services
  900 SW Jackson St., Room 1031, LSOB
  Topeka, KS 66612

Certificate of Completion	10 Credits
Technical Curriculum	
EMS 105 EMT—Basic	10
Certificate of Completion Total	**10**

HEALTH SCIENCES

Home Health Aide

Program Description

The Home Health Aide course prepares the certified nurse aide (CNA) to care for clients in community and home settings. Graduates may take an examination to become a certified home health aide. Documentation and identification of client needs is an important part of this course. Many home health aides are also hired to work at hospice agencies and with agencies working with children.

Admissions Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Possess a current CNA certificate.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Home Health Aide program is approved by the Kansas Board of Regents.

The program is also approved by:
- Kansas Department of Health and Environment
  1000 SW Jackson, Suite 200
  Topeka, KS 66212-1365
  785.296.0056

Certificate of Completion	2 Credits
Technical Curriculum	
GRA 104 Home Health Aide	2
Certificate of Completion Total	**2**

Health Sciences

IV Therapy

Program Description

The IV Therapy program prepares the licensed practical nurse (LPN) to perform activities as defined in KAR 60-16-102(b) and presents knowledge, skills and competencies in the administration of intravenous fluid therapy, which will quality the LPN to perform this procedure safely. It should be noted that policies and protocols vary among institutions. The Kansas State Board of Nursing (KSBN) approves WATC as a provider of continuing nursing education.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 18 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Possess a current Kansas licensed practical nurse license.
• Meet entrance exam requirements.

Accreditations and Affiliations

The IV Therapy program is approved by the Kansas Board of Regents and the Kansas State Board of Nursing.

Certificate of Completion	3 Credits
Technical Curriculum	
ALH 160 IV Therapy for LPNs	3
Certificate of Completion Total	**3**

Health Sciences

Medical Assistant

Program Description

The Medical Assistant program provides the education and experience necessary to function in doctor's offices and clinics under the supervision of a physician. Graduates perform front-office (administrative) and back-office (clinical) duties. Graduates of the program may take the American Association of Medical Assistants (AAMA) national certification examination to become certified medical assistants. Students can round off their educational experience by completing 21 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications, plus an advanced technical course for an associate of applied science degree.

Students may request consideration for advanced placement by submitting an official transcript of coursework. This program does not offer credit for experiential learning.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Accommodation
- Awkward position
- Bending
- Color vision
- Depth perception
- Feeling
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Pulling and pushing
- Reaching
- Reading
- Repetitive movement
- Sitting
- Speaking
- Standing
- Stooping
- Twisting
- Walking
- Writing

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotion
- Ability to organize materials
- Ability to remember procedures and instructions
- Careful attention to detail
- Concentrating on task
- Dealing with angry people
- Dealing with diverse populations
- Demonstrate honesty and dependability and safeguard patient confidentiality
- Fast reaction time
- Handling conflict

Technical Certificate	49 Credits
Technical Curriculum	
MEA 101 Professional Issues *	2
MEA 111 Patient Care I	5
MEA 113 Administrative Aspects I *	3
MEA 115 Insurance Billing & Coding *	3
MEA 117 Pharmacology *	5
MEA 120 Diagnostic Procedures	2
MEA 121 Patient Care II	5
MEA 123 Administrative Aspects II	1
MEA 125 Clinical Laboratory Procedures *	4
MEA 131 Externship in Medical Assisting	6
Technical Education Curriculum Total	**36**
General Education Curriculum	
ALH 101 Medical Terminology	3
BIO 100 Biology Review	1
BIO 150 Human Anatomy & Physiology	5
CED 115 Computer Applications	3
CPR 001 CPR for Healthcare Providers	1
General Education Curriculum Total	**13**
Technical Certificate Total	**49**

Associate of Applied Science Degree	64 Credits
Technical Curriculum	
EMP 100 Global Professional Standards	2
MEA 101 Professional Issues *	2
MEA 111 Patient Care I	5
MEA 113 Administrative Aspects I *	3
MEA 115 Insurance Billing & Coding *	3
MEA 117 Pharmacology *	5
MEA 120 Diagnostic Procedures	2
MEA 121 Patient Care II	5
MEA 123 Administrative Aspects II	1
MEA 125 Clinical Laboratory Procedures *	4
MEA 131 Externship in Medical Assisting	6
MEA 210 Advanced Procedures in Medical Assisting	4
Technical Education Curriculum Total	**42**
General Education Curriculum	
ALH 101 Medical Terminology	3
BIO 100 Biology Review	1
BIO 150 Human Anatomy & Physiology	5
CED 115 Computer Applications	3
CPR 001 CPR for Healthcare Providers	1
ENG 101 Composition I	3
MTH 112 College Algebra	3
SPH 101 Public Speaking	3
General Education Curriculum	**22**
Associate of Applied Science Degree Total	**64**

* *Kansas Workforce Education Curriculum state curriculum.*

- Handling multiple priorities
- Performing task during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Public contact
- Reasoning-applying procedures
- Using diplomacy and tact
- Verbal and nonverbal skills adequate for transmitting

information

Individuals in this position are required to carry or lift weights in this range:
- 10–50 pounds

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Chemical hazards
- Electrical equipment
- Respiratory hazards
- Use of sharp instruments

Admissions Requirements

In addition to the college's admissions policy, students must:
- Be 17 years of age or older and 18 years of age by program completion.
- Attend an information session prior to registration.
- Successfully complete preadmission testing.
- Successful completion of a college-level Computer Applications course or equivalent. Credit may be transferred by official transcript from an accredited institution.
- Concurrent first-semester enrollment in, or successful completion of, a college-level Anatomy and Physiology and Medical Terminology course. Credit may be transferred by official transcript from an accredited institution.
- Possess current American Heart Association's CPR for Healthcare Providers certification before start of second-semester coursework.
- Upon acceptance, complete necessary health examinations, immunizations and pass a drug-screen test and criminal background check at their own expense at agencies designated by WATC prior to the first day of the course.

Accreditations/Affiliations

The Medical Assistant program is approved by the Kansas Board of Regents.

The Medical Assistant program is accredited by the Commission on Accreditation of Allied Health Education Programs upon the recommendation of the American Association of Medical Assistants (AAMA) Medical Assisting Education Review Board.
- Commission on Accreditation of
  Allied Health Education Programs
  1361 Park St.
  Clearwater, FL 33756
  727.210.2350
  www.caahep.org

HEALTH SCIENCES

Medical Coding

Program Description

The Medical Coding program prepares students with the mechanics and tools for the submitting of electronic/paper insurance claim forms after applying current industry coding for medical office treatments and procedures.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Successful completion of a college-level Anatomy and Physiology and a Medical Terminology course. Credit may be transferred by official transcript from an accredited institution.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Medical Coding program is approved by the Kansas Board of Regents.

Certificate of Completion	13 Credits
Technical Curriculum	
ALH 101　Medical Terminology	3
BIO 100　Biology Review	1
BIO 150　Anatomy & Physiology	5
MEC 101　Insurance Billing & Coding for the Physician's Office	4
Certificate of Completion Total	**13**

Health Sciences

Personal Training

Program Description

Fitness is fast becoming an essential component in people's everyday lives. With the increase in obesity among youth and a decrease in physical activity as well as the longevity of life, fitness/wellness is a key component in building optimal health. Personal training is an integral piece of the wellness puzzle that requires knowledge, competency and execution in evaluating, assessing and programming for diverse populations. With more people looking for personal trainers to help them pursue their individual fitness goals, personal training is now considered one of the top ten career choices. This program prepares individuals to work in consultation with, and under the supervision of physicians, to prevent and treat sports injuries and associated conditions. This program also provides students with the depth and breadth of knowledge that comes with the addition of 30 credit hours of general education. The program includes instruction in the identification, evaluation and treatment of athletic injuries and illnesses; first aid and emergency care; therapeutic exercise; anatomy and physiology; exercise physiology; kinesiology and biomechanics; nutrition; sports psychology; personal and community health; various sports and their bio-mechanical and physiological demands; and applicable professional standards and regulations.

Admissions Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency.
- Meet entrance requirements.

Accreditations/Affiliations

The Personal Training program is approved by the Kansas Board of Regents.

Technical Certificate		27 Credits
Technical Curriculum		
PTR 100	Introduction to Personal Training	3
PTR 101	Principles of Strength & Conditioning	3
PTR 102	Introduction to Exercise Science	3
PTR 103	Kinesiology & Biomechanics	3
PTR 104	Nutrition for the Athlete	3
PTR 105	Exercise Program Design & Instruction	3
PTR 106	Fitness Assessment & Evaluation	3
PTR 107	Methods for Enhancing Physical Performance	3
	Technical Curriculum Total	**24**
General Education Curriculum		
ALH 105	First Aid & CPR	3
	Technical Curriculum Total	**3**
Technical Certificate Total		**27**

Associate of Applied Science Degree		62 Credits
Technical Curriculum		
PTR 100	Introduction to Personal Training	3
PTR 101	Principles of Strength & Conditioning	3
PTR 102	Introduction to Exercise Science	3
PTR 103	Kinesiology & Biomechanics	3
PTR 104	Nutrition for the Athlete	3
PTR 105	Exercise Program Design & Instruction	3
PTR 106	Fitness Assessment & Evaluation	3
PTR 107	Methods for Enhancing Physical Performance	3
PTR 120	Internship for Personal Training	3
	Electives	2
Electives — Choose Two of the Following		
PTR 110	Core Strength & Stability	1
PTR 111	Weight Training	1
PTR 112	Yoga	1
PTR 113	Circuit Training	1
PTR 114	Aerobics	1
	Technical Curriculum Total	**29**
General Education Curriculum		
ALH 105	First Aid & CPR	3
ART 100	Art Appreciation	3
BIO 150	Human Anatomy & Physiology	5
CED 115	Computer Applications	3
ENG 101	Composition I	3
ENG 102	Composition II	3
MTH 112	College Algebra	3
PED 110	Lifetime Fitness	1
PHL 110	Ethics	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
	General Education Curriculum Total	**33**
	Associate of Applied Science Degree Total	**62**

HEALTH SCIENCES

Phlebotomy

Program Description

The Phlebotomy program provides the education and experience necessary to perform laboratory specimen collection in clinical and reference laboratories, physician's offices and donor collection centers. Graduates are eligible to take national certification examinations offered by various certification organizations.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Accommodation
- Awkward position
- Bending
- Color vision
- Depth perception
- Feeling
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Near visual acuity
- Pulling and pushing
- Reaching
- Reading
- Repetitive movement
- Sitting
- Speaking
- Standing
- Stooping
- Twisting
- Walking
- Writing

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotion
- Ability to organize materials
- Ability to remember procedures and instructions
- Careful attention to detail
- Concentrating on task
- Dealing with angry people
- Dealing with diverse populations
- Demonstrate honesty and dependability and safeguard patient confidentiality
- Fast reaction time
- Handling conflict
- Handling multiple priorities
- Performing task during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Public contact
- Reasoning-applying procedures
- Using diplomacy and tact
- Verbal and nonverbal skills adequate for transmitting information

Certificate of Completion		12 Credits
Technical Curriculum		
PBT 160	Concepts of Phlebotomy	4
PBT 161	Phlebotomy Lab	4
PBT 170	Phlebotomy Clinical Internship	4
	Certificate of Completion Total	**12**

Individuals in this position are required to carry or lift weights in this range:
- 10–50 pounds

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Chemical hazards
- Electrical equipment
- Respiratory hazards
- Use of sharp instruments

Admissions Requirements

In addition to the college's admissions policy, students must::
- Attend an information session prior to registration.
- Be 17 years of age or older.
- Attend an information session prior to registration.
- Show documentation of high school graduation or satisfaction of high school equivalency.
- Successfully complete preadmission testing.

Upon acceptance to the program, students must:
- Submit a negative TB skin test.
- Pay for and pass a criminal background check and drug-screen test at an agency designated by WATC.
- Complete required health examinations and immunizations at their own expense by designated date.

Accreditations/Affiliations

The Phlebotomy program is approved by the Kansas Board of Regents.

HEALTH SCIENCES

Practical Nurse

Program Description

The Practical Nurse program provides the common body of knowledge and skills essential for the practical nurse's entry into practice. The curriculum fulfills the educational requirements for licensure as a licensed practical nurse (LPN). Upon completion of the program, graduates are eligible to take the NCLEX-PN examination. Students round off their educational experience by completing 17 credits of general education courses in five areas of study including mathematics, natural and social sciences, English and communications. Curriculum and schedule are subject to change based on clinical availability.

Students may request consideration for advanced placement by submitting an official transcript of coursework. This program does not offer credit for experiential learning. There are pathways for articulation to degree nursing programs. Students continuing their education for an ADN or BSN should consult a counselor regarding transfer of credit for all courses.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Accommodation
- Awkward position
- Color vision
- Depth perception
- Feeling (touch)
- Fingering (manipulative finger movements)
- Grasping
- Handling
- Hearing
- Lifting
- Manual dexterity
- Near visual acuity
- Pulling and pushing
- Reaching
- Reading
- Repetitive movement
- Sitting
- Speaking
- Standing
- Stooping and bending
- Twisting
- Writing

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotions
- Ability to organize materials
- Ability to remember procedures and instructions
- Careful attention to detail
- Concentrating on task
- Dealing with angry people
- Dealing with diverse populations
- Fast reaction time
- Handling conflict
- Handling multiple priorities

Technical Certificate		48 Credits
Technical Curriculum		
PNR 120	KSPN Foundations of Nursing	4
PNR 121	KSPN Foundations of Nursing Clinicals	2
PNR 122	Pharmacology	3
PNR 123	KSPN Medical Surgical Nursing I	4
PNR 124	KSPN Medical Surgical Nursing I Clinical	3
PNR 126	KSPN Medical Surgical Nursing II	4
PNR 127	KSPN Medical Surgical Nursing II Clinical	3
PNR 130	KSPN Maternal Child Nursing	2
PNR 131	KSPN Maternal Child Nursing Clinical	1
PNR 132	KSPN Gerontology Nursing	2
PNR 134	Role Development	1
PNR 135	KSPN Mental Health Nursing	2
	Technical Curriculum Total	**31**
General Education Curriculum		
ALH 110	Principles of Nutrition	3
BIO 150	Human Anatomy & Physiology	5
CED 115	Computer Applications	3
PSY 101	General Psychology	3
PSY 120	Developmental Psychology	3
	General Education Curriculum Total	**17**
	Technical Certificate Total	**48**

- Honesty, dependability and safeguarding confidentiality of patient
- Making observations and exercising good judgment
- Performing task during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Problem solving
- Public contact
- Reasoning — applying procedures
- Using diplomacy and tact
- Verbal/nonverbal skills adequate for transmitting information

Individuals in this position are required to carry or lift weights in this range:
- 50 pounds unassisted
- Over 50 pounds assisted

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Chemical hazards (skin irritants)
- Electrical equipment
- Respiratory hazards
- Use of sharp instruments

Admissions Requirements

In addition to the college's admissions policy, students must:
- Be 18 years of age or older.
- After application has been processed and applicant has been accepted for admission, complete a Health Sciences program application.

- Practical Nurse applicants must provide original high school or GED transcript according to Kansas State Board of Nursing guidelines. Request that transcript be mailed directly to Registrar.
- Be a current Kansas Certified Nurse Aide (CNA) and must submit copy of current CNA certificate from KDHE to WATC Main Campus, Admissions.
- Complete Anatomy and Physiology (A&P), CPR for Healthcare Providers, General Psychology, Developmental Psychology and Principles of Nutrition with a passing grade prior to entering program. A&P is acceptable for five years after completion of course; all others are acceptable for seven years. Students who are currently enrolled in prerequisite courses may bring a current, unofficial transcript or equivalent to the information session.
- Successfully complete the TEAS test with a minimum score of 55 in Math, English and Science and 60 in Reading. A photo ID and payment are required to take the assessments. Results are mailed to applicants in three to five business days and are valid for five years. Results are not given over the phone.
- Applicants must submit two letters of recommendation from an employer or instructor (former or current) to Admissions. Preprinted forms are available from Admissions.
- Attend an orientation session prior to registration. Dates and times are mailed to applicants.

Upon acceptance into program, applicants must:
- Pay for and pass a criminal background check and drug screen test at an agency designated by WATC.
- Complete required health examinations and immunizations at their own expense by designated date.

Note: The Kansas State Board of Nursing may deny licensure to persons who have been guilty of a misdemeanor involving an illegal drug offense unless the applicant or licensee establishes sufficient rehabilitation to warrant the public trust (KSA 65-1120), except that notwithstanding KSA 74-120 no license, certificate of qualification or authorization to practice nursing as a licensed professional nurse, as a licensed practical nurse, as an advanced registered nurse practitioner or registered nurse anesthetist shall be granted to a person with a felony conviction for a crime against persons as specified in article 34 of chapter 21 of the Kansas Statutes Annotated and acts amendatory thereof or supplemental thereto.

Accreditations/Affiliations

The Practical Nurse program is approved by the Kansas Board of Regents.

The program is also accredited by:
- National League for Nursing Accrediting Commission, Inc.
  61 Broadway, 33rd Floor
  New York, NY 10006
  212.363.5555

The program is also approved by:
- Kansas State Board of Nursing
  900 S.W. Jackson, Suite 1051
  Topeka, KS 66612-1230
  785.296.3782

HEALTH SCIENCES

Rehabilitative Aide

Program Description

The Rehabilitative Aide program prepares students to provide basic preventative and rehabilitative services to long-term care residents, such as ambulation, range of motion and activities of daily living. Rehabilitative aides work under the direction of a physical therapist or licensed nurse. Instruction includes classroom instruction and laboratory and clinical experiences. Students must successfully complete a competency skills checklist, maintain attendance as defined in the course syllabus and achieve satisfactory grades.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 18 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Possess a current certified nurse aide certificate.
- Meet entrance exam requirements.

Accreditations and Affiliations

The Rehabilitative Aide program is approved by the Kansas Board of Regents.

Certificate of Completion	2 Credits
Technical Curriculum	
GRA 108 Rehabilitative Aide	2
Certificate of Completion Total	**2**

HEALTH SCIENCES

Surgical Technology

Program Description

The Surgical Technology program prepares students to function in the operating room environment by combining classroom and simulated laboratory instruction with actual surgical clinical experiences. Successful completion of the program allows graduates to take the national certification examination to become a certified surgical technologist (CST). Students can round off their educational experience by completing 12 credit hours of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Students may request consideration for advanced placement by submitting an official transcript of coursework. This program does not offer credit for experiential learning.

Physical and Environmental Requirements

The following sensory and physical activities are essential functions of this position and are performed in excess of levels required for ordinary movement:
- Accommodation
- Awkward position
- Color vision
- Depth perception
- Feeling
- Fingering (manipulative finger movements)
- Flexing or rotating wrists
- Grasping
- Handling
- Hearing
- Lifting
- Mobility
- Near visual acuity
- Reaching
- Reading
- Repetitive movement
- Speaking
- Standing
- Stooping
- Twisting

The following mental and communicative activities are essential to the performance of this position:
- Ability to handle stress and emotion
- Ability to organize materials
- Ability to remember procedures and instructions
- Careful attention to detail
- Concentrating on task
- Dealing with angry people
- Dealing with diverse populations
- Fast reaction time
- Handling conflict
- Handling multiple priorities
- Performing task during limited time frame
- Positive attitude toward ill, handicapped and elderly
- Public contact
- Reasoning — applying procedures
- Using diplomacy and tact

Technical Certificate		47 Credits
Technical Curriculum		
SGT 101	Introduction to Surgical Technology	4
SGT 115	Surgical Procedures I	3
SGT 119	Surgical Technology - Clinical Experience I	4
SGT 120	Principles & Practices in Surgical Technology	5
SGT 125	Surgical Procedures II	4
SGT 129	Surgical Technology - Clinical Experience II	4
SGT 130	Surgical Technology - Clinical Experience III	3
SGT 140	Principles & Practices in Surgical Technology Lab	3
	Technical Curriculum Total	**30**
General Education Curriculum		
ALH 101	Medical Terminology	3
ALH 115	Pharmacology	3
BIO 150	Human Anatomy & Physiology	5
BIO 160	Microbiology	5
CPR 001	CPR for Healthcare Providers	1
	General Education Curriculum Total	**17**
	Technical Certificate Total	**47**

Associate of Applied Science Degree		65 Credits
Technical Curriculum		
SGT 101	Introduction to Surgical Technology	4
SGT 115	Surgical Procedures I	3
SGT 119	Surgical Technology - Clinical Experience I	4
SGT 120	Principles & Practices in Surgical Technology	5
SGT 125	Surgical Procedures II	4
SGT 129	Surgical Technology - Clinical Experience II	4
SGT 130	Surgical Technology - Clinical Experience III	3
SGT 140	Principles & Practices in Surgical Technology Lab	3
	Technical Curriculum Total	**30**
General Education Curriculum		
ALH 101	Medical Terminology	3
ALH 115	Pharmacology	3
BIO 150	Human Anatomy & Physiology	5
BIO 160	Microbiology	5
CED 115	Computer Applications	3
CPR 001	CPR for Healthcare Providers	1
ENG 101	Composition I	3
MTH 101	Intermediate Algebra	3
PSY 101	General Psychology	3
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	3
	General Education Curriculum Total	**35**
	Associate of Applied Science Degree Total	**65**

Individuals in this position are required to carry or lift weights in this range:
- 10–50 pounds

Individuals in this position are exposed to the following:
- Bloodborne pathogens
- Chemical hazards
- Latex
- Physical hazards
- Radiation
- Respiratory hazards
- Use of sharp objects
- Vibrating equipment
- Wet hands

Admissions Requirements

In addition to the college's admissions policy, students must:
- Be 18 years of age or older.
- After application has been processed and applicant has been accepted for admission, complete a Health Sciences program application.
- Request that official transcript (high school, GED and any college credits) be mailed directly to the Registrar.
- Successfully complete COMPASS preadmission testing with a score of 70 for reading, 45 for writing and 40 for math. A photo ID and payment are required to take the assessments. Results are mailed to applicants in three to five business days and are valid for five years. Results are not given over the phone.
- Complete college-level Introduction to MS Office, CPR for Healthcare Providers (American Heart Association only) and Anatomy and Physiology (A&P) courses with passing grades prior to entering program. A&P is acceptable up until five years after completion of course. Credit may be transferred by official transcript from an accredited institution.
- Applicants must submit two letters of recommendation from an employer or instructor (former or current) to Admissions. Preprinted forms are available from Admissions.
- Attend an information session prior to registration. Dates and times are mailed to applicants.

Upon acceptance into program, applicants must:
- Pay for and pass a criminal background check and drug-screen test at an agency designated by WATC.
- Complete all required health examinations and immunizations at their own expense by designated date.

Accreditations/Affiliations

The Surgical Technology program is approved by the Kansas Board of Regents.

The Surgical Technology program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on the recommendation of the Accreditation Review Committee on Education in Surgical Technology of the Association of Surgical Technologists (AST):
- Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC-STSA)
  6 West Dry Creek Circle, Suite 100
  Littleton, CO 80120
  303.694.9262

Manufacturing and Engineering Technology

Manufacturing and Engineering Technology

Air Conditioning Technology

Program Description

The Air Conditioning Technology program is a sequence of courses that prepares students for careers in the air conditioning industry. Learning opportunities develop academic, occupational and professional knowledge and skills required for job acquisition, retention and advancement. The program emphasizes a combination of air conditioning theory and practical application necessary for successful employment. Program graduates receive the qualifications of an air conditioning technician. Students can round off their education with 15 credit hours of general education courses to obtain an associate of applied science degree.

Admission Requirements

In addition to the college's admissions policy, students must:
• Submit an application for admission.
• Be 16 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Meet entrance exam requirements.

Accreditations and Affiliations

The Air Conditioning Technology program is approved by the Kansas Board of Regents.

This program is also affiliated with:
• RSES Headquarters
  1666 Rand Road
  Des Plaines, IL 60016-3552
  1.800.295.5660 or 847.297.6464

Certificate of Completion	12 Credits
Air Conditioning Technology	
Technical Curriculum	
ACR 100 Refrigeration Fundamentals	3
ACR 101 Principles & Practices of Refrigeration	4
ACR 115 Electricity & Electronics for the HVACR Service Technician	4
SAF 100 OSHA Construction Safety I	1
Certificate of Completion Total	**12**

Technical Certificate	43 Credits
Air Conditioning Technology	
Technical Curriculum	
ACR 100 Refrigeration Fundamentals	3
ACR 101 Principles & Practices of Refrigeration	4
ACR 105 Electrical Circuits & Wiring Diagrams	4
ACR 107 Air Conditioning Systems	3
ACR 110 Gas Heating Systems	3
ACR 111 Heat Pumps & Related Systems	3
ACR 115 Electricity & Electronics for the HVACR Service Technician	4
ACR 120 Building Control Systems I	3
ACR 125 EPA Certification	1
ACR 130 HVAC Design	4
EMP 100 Global Professional Standards	2
SAF 100 OSHA Construction Safety I	1
Technical Curriculum Total	**35**
General Education Curriculum	
CED 101 Computer Essentials	2
MTH 101 Intermediate Algebra	3
SPH 101 Public Speaking	3
or	
SPH 111 Interpersonal Communication	
Generel Education Curriculum Total	**8**
Technical Certificate Total	**43**

Associate of Applied Science Degree Air Conditioning Technology		62 Credits
Technical Curriculum		
ACR 100	Refrigeration Fundamentals	3
ACR 101	Principles & Practices of Refrigeration	4
ACR 105	Electrical Circuits & Wiring Diagrams	4
ACR 107	Air Conditioning Systems	3
ACR 110	Gas Heating Systems	3
ACR 111	Heat Pumps & Related Systems	3
ACR 115	Electricity & Electronics for the HVACR Service Technician	4
ACR 120	Building Control Systems I	3
ACR 125	EPA Certification	1
ACR 130	HVAC Design	4
ACR 135	Internship in HVACR	5
ACR 140	Sheetmetal	3
CWG 110	Welding Applications	4
EMP 100	Global Professional Standards	2
SAF 100	OSHA Construction Safety I	1
	Technical Curriculum Total	**47**
General Education Curriculum		
CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**15**
	Associate of Applied Science Degree Total	**62**

MANUFACTURING AND ENGINEERING TECHNOLOGY

Machining Technology

Program Description

This program provides students the skills and knowledge needed in various manufacturing procedures and operations, including lathe and mill operations and manual and Computer Numerical Control (CNC) machining operations. Program includes classroom and laboratory instruction in safety, proper use of hand and power tools, blueprint reading and sketching, precision measuring and layout, setup, operation, clean-up and basic maintenance of lathes, milling machines and surface grinders with extra emphasis on CNC set up and operation.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Machining Technology program is approved by the Kansas Board of Regents.

Certificate of Completion CATIA Machining Technology	15 Credits
Technical Curriculum	
CAT 101 CATIA Part Design & Sketcher	4
CAT 105 CATIA Assembly Design	4
CAT 115 CATIA Prismatic Machining	4
CAT 124 CATIA Surface Machining	3
Certificate of Completion Total	**15**

Certificate of Completion CNC Lathe Machining	15 Credits
Technical Curriculum	
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
MMG 102 Blueprint Reading I	2
MMG 147 Principles of Machining I	2
MMG 152 CNC Lathes	6
Certificate of Completion Total	**15**

Certificate of Completion CNC Mill Machining	15 Credits
Technical Curriculum	
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
MMG 102 Blueprint Reading I	2
MMG 144 CNC Mills	6
MMG 147 Principles of Machining I	2
Certificate of Completion Total	**15**

Certificate of Completion Manual Lathe Machining	15 Credits
Technical Curriculum	
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
MMG 102 Blueprint Reading I	2
MMG 142 Manual Lathes	6
MMG 147 Principles of Machining I	2
Certificate of Completion Total	**15**

Certificate of Completion Manual Mill Machining	15 Credits
Technical Curriculum	
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
MMG 102 Blueprint Reading I	2
MMG 143 Manual Mills	6
MMG 147 Principles of Machining I	2
Certificate of Completion Total	**15**

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Technical Certificate	46 Credits
Machining Technology	

Technical Curriculum

CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
CAT 115	CATIA Prismatic Machining	4
EMP 100	Global Professional Standards	2
MMG 102	Blueprint Reading I	2
MMG 142	Manual Lathes	6
MMG 143	Manual Mills	6
MMG 144	CNC Mills	6
MMG 152	CNC Lathes	6
	Technical Curriculum Total	**40**

General Education Curriculum

EBS 115	Pre-Algebra Math	3
SPH 101	Public Speaking	3
	or	
SPH 111	Interpersonal Communication	
	General Education Curriculum Total	**6**
	Technical Certificate Total	**46**

Associate of Applied Science Degree	62 Credits
Machining Technology	

Technical Curriculum

CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
CAT 115	CATIA Prismatic Machining	4
EMP 100	Global Professional Standards	2
MMG 102	Blueprint Reading I	2
MMG 142	Manual Lathes	6
MMG 143	Manual Mills	6
MMG 144	CNC Mills	6
MMG 152	CNC Lathes	6

Electives – Take Seven Credit Hours from the Following

CAT 124	CATIA Surface Machining	3
CWG 110	Welding Applications	4
MCD 201	Geometric Dimensioning & Tolerance	3
MMG 225	Machining Internship	4
	Technical Curriculum Total	**47**

General Education Curriculum

CED 115	Computer Applications	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PSY 101	General Psychology	
	or	
SOC 101	Principles of Sociology	3
SPH 101	Public Speaking	
	or	
SPH 111	Interpersonal Communication	3
	General Education Curriculum Total	**15**
	Associate of Applied Science Degree Total	**62**

MANUFACTURING AND ENGINEERING TECHNOLOGY

Manufacturing Engineering Technology

Program Description

Manufacturing Engineering Technology is an interdisciplinary curriculum that prepares graduates to manage projects, processes and people in industrial settings. All students complete a core set of engineering courses designed to provide a well-rounded understanding of manufacturing. This program also allows students to select a focus for their engineering studies from three different tracks including Industrial Engineering, Manufacturing Engineering and Quality Engineering. Topics include hands-on instruction in current technical competency areas including manufacturing processes, materials and testing, computer numeric control (CNC), graphical programming software, quality assurance and control, 3–D solid modeling and CATIA. Students can round off their educational experience by completing 17 credit hours of general education courses in five areas of study including mathematics, natural and social sciences, English and communications to obtain an associate of applied science degree.

Admission Requirements

In addition to the college's admissions policy, students must::
• Submit an application for admission.
• Be 16 years of age or older.
• Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
• Meet entrance exam requirements.

Accreditations/Affiliations

The Manufacturing Engineering Technology program is approved by the Kansas Board of Regents.

| Technical Certificate | 46 Credits |
| Industrial Engineering Technician | |

Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 122	CATIA ENOVIA DMU	2
EMP 100	Global Professional Standards	2
IND 109	Basic Industrial Programmable Logic Controls	3
MCD 116	Introduction to CAD	5
MET 101	Fundamentals of Quality Control	3
MET 105	Quality Assurance	3
MET 110	Manufacturing Processes I	3
MET 115	Environmental Health & Safety	3
MET 160	Engineering Materials & Testing	3
MET 170	Facilities Planning	3
MET 172	Manufacturing Production Management	3
MMG 144	CNC Mills	6
	Technical Curriculum Total	**43**
General Education Curriculum		
BUS 200	Principles of Management	3
	General Education Curriculum Total	**3**
	Technical Certificate Total	**46**

| Technical Certificate | 48 Credits |
| Quality Engineering Technician | |

Technical Curriculum		
EMP 100	Global Professional Standards	2
MCD 116	Introduction to CAD	5
MET 101	Fundamentals of Quality Control	3
MET 105	Quality Assurance	3
MET 110	Manufacturing Processes I	3
MET 115	Environmental Health & Safety	3
MET 135	Designs of Experiments	3
MET 140	Quality Auditing	3
MET 145	Organizational Behavior	3
MET 147	Statistical Quality Control	3
MET 160	Engineering Materials & Testing	3
MET 172	Manufacturing Production Management	3
LEN 100	Lean for Operations	3
	Technical Curriculum Total	**40**
General Education Curriculum		
CED 101	Computer Essentials	2
MTH 112	College Algebra	3
MTH 120	Elementary Statistics	3
	General Education Curriculum Total	**8**
	Technical Certificate Total	**48**

Continued on next page

Technical Certificate		47 Credits
Manufacturing Engineering Technician		
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
CAT 115	CATIA Prismatic Machining	4
CAT 122	CATIA ENOVIA DMU	2
CWG 110	Welding Applications	4
EMP 100	Global Professional Standards	2
IND 105	Applied Electricity AC/DC	3
IND 122	Industrial Fluid Power	3
MCD 116	Introduction to CAD	5
MET 110	Manufacturing Processes I	3
MET 160	Engineering Materials & Testing	3
MMG 102	Blueprint Reading I	2
MMG 144	CNC Mills	6
MMG 147	Principles of Machining I	2
	Technical Certificate Total	**47**

Associate of Applied Science Degree		63 Credits
Industrial Engineering Technician		
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 122	CATIA ENOVIA DMU	2
EMP 100	Global Professional Standards	2
IND 109	Basic Industrial Programmable Logic Controls	3
MCD 116	Introduction to CAD	5
MET 101	Fundamentals of Quality Control	3
MET 105	Quality Assurance	3
MET 110	Manufacturing Processes I	3
MET 115	Environmental Health & Safety	3
MET 160	Engineering Materials & Testing	3
MET 170	Facilities Planning	3
MET 172	Manufacturing Production Management	3
MMG 144	CNC Mills	6
	Technical Curriculum Total	**43**
General Education Curriculum		
BUS 200	Principles of Management	3
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 120	General Physics I	5
	or	
PHS 110	Physical Science	
PSY 101	General Psychology	3
	or	
SOC 101	Principles of Sociology	
SPH 101	Public Speaking	3
	General Education Curriculum Total	**20**
	Associate of Applied Science Degree Total	**63**

Associate of Applied Science Degree		62 Credits
Quality Engineering Technician		
Technical Curriculum		
EMP 100	Global Professional Standards	2
MCD 116	Introduction to CAD	5
MET 101	Fundamentals of Quality Control	3
MET 105	Quality Assurance	3
MET 110	Manufacturing Processes I	3
MET 115	Environmental Health & Safety	3
MET 135	Designs of Experiments	3
MET 140	Quality Auditing	3
MET 145	Organizational Behavior	3
MET 147	Statistical Quality Control	3
MET 160	Engineering Materials & Testing	3
MET 172	Manufacturing Production Management	3
LEN 100	Lean for Operations	3
	Technical Curriculum Total	**40**
General Education Curriculum		
CED 101	Computer Essentials	2
ENG 101	Composition I	3
MTH 112	College Algebra	3
MTH 120	Elementary Statistics	3
PHS 120	General Physics I	5
	or	
PHS 110	Physical Science	
PSY 101	General Psychology	3
	or	
SOC 101	Principles of Sociology	
SPH 101	Public Speaking	3
	General Education Curriculum Total	**22**
	Associate of Applied Science Degree Total	**62**

Associate of Applied Science Degree		64 Credits
Manufacturing Engineering Technician		
Technical Curriculum		
CAT 101	CATIA Part Design & Sketcher	4
CAT 105	CATIA Assembly Design	4
CAT 115	CATIA Prismatic Machining	4
CAT 122	CATIA ENOVIA DMU	2
CWG 110	Welding Applications	4
EMP 100	Global Professional Standards	2
IND 105	Applied Electricity AC/DC	3
IND 122	Industrial Fluid Power	3
MCD 116	Introduction to CAD	5
MET 110	Manufacturing Processes I	3
MET 160	Engineering Materials & Testing	3
MMG 102	Blueprint Reading I	2
MMG 144	CNC Mills	6
MMG 147	Principles of Machining I	2
	Technical Curriculum Total	**47**
ENG 101	Composition I	3
MTH 112	College Algebra	3
PHS 120	General Physics I	5
	or	
PHS 110	Physical Science	
PSY 101	General Psychology	3
	or	
SOC 101	Principles of Sociology	
SPH 101	Public Speaking	3
	General Education Curriculum Total	**17**
	Associate of Applied Science Degree Total	**64**

MANUFACTURING AND ENGINEERING TECHNOLOGY

Welding

Program Description

This program allows students to gain knowledge and skills in cutting, shielded metal arc welding (SMAW), gas metal arc welding (GMAW) and gas tungsten arc welding (GTAW) and provides some exposure to oxy-acetylene cutting and welding. Program includes classroom and lab instruction in safety; blueprint reading and sketching; tools and materials used in the various forms of welding; machine adjustments and rod selection; skill requirements for various welding positions; weld testing and qualifications; and fabrication and layout of various welding projects.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Be 16 years of age or older.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduating from the program.
- Meet entrance exam requirements.

Accreditations/Affiliations

The Welding program is approved by the Kansas Board of Regents.

The program is also an AWS SENSE program:
- American Welding Society
  550 N.W. LeJune Road
  Miami, FL 33126
  1.800.443.9353

Certificate of Completion	15 Credits
Gas Metal Arc Welding	
Technical Curriculum	
CWG 101 Occupational Safety / Welding	1
CWG 102 Print Reading I / Welding	2
CWG 143 GMAW—Gas Metal Arc Welding	7
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
Certificate of Completion Total	**15**
Certificate of Completion	15 Credits
Gas Tungsten Arc Welding	
Technical Curriculum	
CWG 101 Occupational Safety / Welding	1
CWG 102 Print Reading I / Welding	2
CWG 147 GTAW—Gas Tungsten Arc Welding	7
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
Certificate of Completion Total	**15**
Certificate of Completion	15 Credits
Shielded Metal Arc Welding	
Technical Curriculum	
CWG 101 Occupational Safety / Welding	1
CWG 102 Print Reading/Welding	2
CWG 142 SMAW—Shielded Metal Arc Welding	7
EBS 115 Pre-Algebra Math	3
EMP 100 Global Professional Standards	2
Certificate of Completion Total	**15**
Technical Certificate	45 Credits
Welding	
Technical Curriculum	
CWG 101 Occupational Safety / Welding	1
CWG 102 Print Reading I / Welding	2
CWG 103 Print Reading II/Welding	1
CWG 110 Welding Applications	4
CWG 141 Oxy Acetylene Welding & Cutting	2
CWG 142 SMAW—Shielded Metal Arc Welding	7
CWG 143 GMAW—Gas Metal Arc Welding	7
CWG 145 Fabrication & Design	2
CWG 147 GTAW—Gas Tungsten Arc Welding	7
CWG 149 Materials & Testing	2
EMP 100 Global Professional Standards	2
Technical Curriculum Total	**37**
General Education Curriculum	
CED 101 Computer Essentials	2
EBS 115 Pre-Algebra Math	3
SPH 101 Public Speaking	
or	
SPH 111 Interpersonal Communication	3
General Education Curriculum Total	**8**
Technical Certificate Total	**45**

Continued on next page

Associate of Applied Science Degree Welding	60 Credits
Technical Curriculum	
CWG 101 Occupational Safety / Welding	1
CWG 102 Print Reading I / Welding	2
CWG 103 Print Reading II/Welding	1
CWG 110 Welding Applications	4
CWG 141 Oxy Acetylene Welding & Cutting	2
CWG 142 SMAW—Shielded Metal Arc Welding	7
CWG 143 GMAW—Gas Metal Arc Welding	7
CWG 145 Fabrication & Design	2
CWG 147 GTAW—Gas Tungsten Arc Welding	7
CWG 149 Materials & Testing	2
EMP 100 Global Professional Standards	2
Electives — Take One of the Following	
CWG 242 SMAW D1.1 Qualification *	4
CWG 243 GMAW D1.1 Qualification *	4
CWG 250 API 1104 Qualification *	4
Electives — Take Four Credits from the Following	
MCD 116 Introduction to CAD	5
MMG 142 Manual Lathes	6
MMG 143 Manual Mills	6
DIS 150 Directed Individual Studies	4
MMG 152 CNC Lathes	6
if not chosen above	
Technical Curriculum Total	**45**
General Education Curriculum	
CED 115 Computer Applications	3
ENG 101 Composition I	3
MTH 112 College Algebra	3
PSY 101 General Psychology	
or	
SOC 101 Principles of Sociology	3
SPH 101 Public Speaking	
or	
SPH 111 Interpersonal Communication	3
General Education Curriculum Total	**15**
Associate of Applied Science Degree Total	**60**

Online Learning

ONLINE LEARNING – THE VIRTUAL COLLEGE

Online Learning Courses

Program Description

To meet the needs of students, WATC is committed to providing courses and programs in formats that are accessible at alternative times and at greater distances. Online courses make educational opportunities available for WATC students no matter where they are located. Access to courses and instructors is over the Internet via WATC's learning management system. The learning management system is user-friendly and packed with tools to make online learning exciting and beneficial. Some online courses may require a limited number of class meetings for speeches, labs, etc. Some courses require proctored tests that may be taken on WATC campuses or with an approved proctor. See the class schedule and individual course syllabus for details.

Admission Requirements

In addition to the college's admissions policy, students must:
- Submit an application for admission.
- Show documentation of high school graduation or satisfaction of high school equivalency prior to graduation from the program.
- Meet entrance exam requirements.

Accreditations and Affiliations

All Online Learning programs and courses are approved by the Kansas Board of Regents.

Online Learning Courses	Credits
Online offerings vary each semester. Please check the WATC online schedule for most current information at www.watc.edu.	
ACC 105 Fundamentals of Accounting	3
ACC 160 Principles of Accounting I	3
ACC 170 Principles of Accounting II	3
ALH 101 Medical Terminology	3
ALH 110 Principles of Nutrition	3
ART 100 Art Appreciation	3
AVC 100 Aerospace Safety	1
AVC 101 Applied Shop Math	2
BIO 100 Biology Review	1
BIO 110 Principles of Biology	5
BMT 115 Beginning E-Mail Marketing	1
BMT 120 Social Media Madness	1
BUS 104 Introduction to Business	3
BUS 105 Database Management	2
BUS 106 Office Procedures	2
BUS 108 Word Processing	3
BUS 121 Business Communications	3
BUS 122 Business Math	3
BUS 130 Personal Finance	3
BUS 160 Human Relations	3
BUS 175 Project Management & Leadership	3
CED 101 Computer Essentials	2
CED 115 Computer Applications	3
CED 120 Advanced Computer Applications	3
CHM 100 Chemistry Review	1
CHM 110 General Chemistry	5
CNU 010 Certified Nurse Aide Update	0
CRJ 101 Introduction to Criminal Justice	3
ECO 105 Principles of Macroeconomics	3
ECO 110 Principles of Microeconomics	3
EMP 100 Global Professional Standards	2
ENG 101 Composition I	3
ENG 120 Composition II	3
ENT 110 Introduction to Entrepreneurship	3
GRA 019 Medication Aide Update	0
HHA 100 Home Health Aide	2
INT 100 Accessories	1
MTH 101 Intermediate Algebra	3
MTH 112 College Algebra	3
MTH 113 Trigonometry	3
PED 110 Lifetime Fitness	1
PHL 110 Ethics	3
PHS 110 Physical Science	5
PNR 111 Principles of Nutrition	3
PSY 101 General Psychology	3
PSY 120 Developmental Psychology	3
PSY 130 Human Growth & Development	3
SOC 101 Introduction to Sociology	3
SGT 101 Introduction to Surgical Technology	2
SPH 101 Introduction to Public Speaking	3
SPH 111 Interpersonal Communication	3

WATC

www.watc.edu

Catalog
2010-2011

Course Descriptions

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Course Descriptions

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Academic Success – Tutoring

ASC 007   Self-Paced COMPASS™ Test Preparation   0 Cr Hrs
Designed for those who have math, reading and writing skills, but would like to practice before taking the COMPASS® placement test, or designed for those who have taken the COMPASS math, reading and/or writing placement tests, to raise test scores for program admission. Graded Satisfactory / Unsatisfactory.

ASC 008   Self-Paced TEAS® Test Preparation   0 Cr Hrs
Designed for those who have math, reading and writing skills, but who would like to quickly practice before taking the TEAS placement test, or designed for those who have taken the TEAS math, reading, English and/or science placement tests, to raise test scores for program admission. Graded Satisfactory / Unsatisfactory.

Academic Success also facilitates general education Essential Basic Skills open-learning courses.

EBS 102   Sentence Structure   1 Cr Hr
Enables students to construct complete simple, compound and complex sentences by applying grammar concepts learned.

EBS 103   Paragraph Writing   1 Cr Hr
Enables students to write a focused, organized, supported paragraph without fragment, run-on or comma splice errors.

EBS 113   Basic Mathematics   3 Cr Hrs
Provides students with basic arithmetic computational skills including basic decimals, fractions, ratios and proportions and percents. Computation by scientific calculator is introduced, but emphasis is placed on computation by hand. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.

Automotive

Auto Collision Repair

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

EBS 115   Pre-Algebra Math   3 Cr Hrs
Arithmetic with fractions, decimals and percents. Introduction to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

SPH 111   Interpersonal Communication   3 Cr Hrs
Improves individual communication skills. By understanding the elements of effective communication, students are able to create environments that bring out the best in themselves and others. In addition, students learn how to better turn ideas and feelings into words, how to listen more effectively, respond more appropriately to what others have said and, most important of all, how to maintain and develop good interpersonal relationships with their families, their peers and fellow workers. Emphasis is placed on small-group activities, interviewing skills and verbal and non-verbal communication.

TAC 101   Occupational Safety   1 Cr Hr
Provides students with an appreciation and basic understanding of the safety rules and regulations that govern the transportation industry. Students learn and apply safe work habits in the use of hand and power tools as well as the handling, use and application of hazardous materials. Films, videos, field trips and guest speakers are used to supplement course.

TAC 111   Structural Damage Analysis & Repair   8 Cr Hrs
Includes frame inspection and repair on body-over-frame and unibody inspection measurement and repair. Students comply with personal and environmental safety practices and recognize that measuring, dimensioning and tolerance limits in unibody vehicles are critical to repairing these vehicles and that suspension/steering mounting points and engine power train attaching points are critical to vehicle handling, performance and safety. Also addresses the replacement of fixed glass and metal welding and cutting.

TAC 112   Refinish I   6 Cr Hrs
Students comply with personal and environmental safety practices and identify and take necessary precautions with hazardous operations. Introduces students to surface preparation, spray gun and related equipment operation, paint mixing, matching, applying, solving paint application problems, recognizing finish defects, causes and cures and final automobile detail. *Prerequisite: TAC 101 Occupational Safety or administrator approval.*

TAC 113   Nonstructural Damage Analysis & Repair   9 Cr Hrs
Students review damage reports and analyze damage to determine appropriate methods for overall repair. Instruction includes classroom and laboratory activities, panel repairs, replacements, adjustments, metal finishing, body filling, moveable glass, hardware and metal welding and cutting.

TAC 114   Steering, Suspension & Alignment   3 Cr Hrs
Involves the analysis, repair and replacement of suspension and steering components along with angles and pivot-point alignment involved in proper steering alignment.

TAC 116   Electrical Systems   2 Cr Hrs
Includes classroom and laboratory instruction on basic electricity, use of test equipment, schematic reading, general automotive electronics and the repair of electrical components commonly damaged during collision.

TAC 118   Refinish II   5 Cr Hrs
Continuation of TAC 112 Refinish I. Includes a large amount of time in laboratory instruction to develop spraying and polishing techniques including the development of a refinish plan, paint mixing and color matching. *Prerequisite: TAC 112 Refinish I or administrator approval.*

Automotive Service Technology

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

EBS 115   Pre-Algebra Math   3 Cr Hrs
Arithmetic with fractions, decimals and percents. Introduction to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

TAS 121   Engine Repair   4 Cr Hrs
Includes classroom and laboratory instruction in the diagnosis, removal, repair and installation of automotive engine assemblies, along with diagnosis and repair of general automotive engine systems, cylinder head and value train systems, engine block assembly and lubrication and cooling systems.

TAS 122   Automotive Brake Systems   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, inspection, diagnosis and repair of hydraulic brake systems, drum and disc brakes, power brakes, miscellaneous and related braking systems such as wheel bearings, parking brakes, electrical, etc. and anti-lock brake systems.

TAS 123   Suspension & Steering Systems   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, diagnosis, adjustment and repair of automotive suspension and steering systems, including the diagnosis and repair of steering systems, suspension systems, wheels and tires and alignment concerns.

TAS 124   Electrical & Electronic Systems I   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, diagnosis, service and repair of automotive electrical/electronic systems, including the diagnosis, service and repair of the general electrical system, battery, the starting, charging and lighting systems, gauges, warning devices and driver information systems, horn and wiper/washer as well as other electrical/electronic accessories.

TAS 125   Electrical & Electronic Systems II   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, diagnosis, service and repair of automotive electrical/electronic systems, including the diagnosis, service and repair of the general electrical system, charging and lighting systems, gauges, warning devices and driver information systems, horn and wiper/washer as well as other electrical/electronic accessories.

TAS 126   Manual Transmission / Transaxle & Drive Train   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, inspection, diagnosis, adjustment and repair of manual drive trains and axles, including the diagnosis and repair of clutches, drive and half-shaft universal and constant velocity (CV), joints, rear axles and four-wheel drive components.

TAS 127   Automatic Transmissions Repair   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, diagnosis, adjustment and repair of automatic transmissions and transaxles, both on and off the vehicle and includes the disassembly of oil pumps, converters, gear trains, shafts, bushings, cases and friction and reaction units.

TAS 128   Heating & Air Conditioning   4 Cr Hrs
Includes classroom and laboratory instruction in the operation, diagnosis, adjustment and repair of automotive heating and air conditioning systems, including the diagnosis and repair of all related refrigerant system components, heating, ventilation and engine cooling systems. Provides training on refrigerant recovery and handling in according with strict federal government guidelines.

TAS 131   Engine Performance I   4 Cr Hrs
Includes classroom and laboratory instruction in operation, diagnosis, adjustment and repair of drivability concerns in the automotive engine system, including the diagnosis and repair of general engine performance systems, computerized engine control systems, ignition systems, fuel, air induction, exhaust systems and emissions standards.

TAS 132   Engine Performance II   4 Cr Hrs
Includes classroom and laboratory instruction in operation, diagnosis, adjustment and repair of drivability concerns in the automotive engine system, including the diagnosis and repair of general engine performance systems, computerized engine control systems, fuel, air induction, exhaust systems and emissions standards.

TAS 200   Advanced Electronic Transmission Diagnosis   3 Cr Hrs
Introduces automatic transmission hydraulic/mechanical and electronic diagnosis and repair. Topics include electronically controlled automatic transmissions, automatic transmission electrical and electronic problems and diagnosis and repair.

Aviation

Advanced Aerostructures

AER 132   Aerostructures Assembly   4 Cr Hrs
Provides instruction in the fundamentals of assembly, meeting set standards, safety issues, use of common aircraft sheetmetal tools, sealant application, math and aircraft blueprint reading. Students learn to identify fasteners, install and remove fasteners, assemble sheetmetal components and identify and maintain proper "skin" quality. Students receive classroom instruction and demonstration as well as shop demonstration and performance.

AER 133   Advanced Aerostructures   2 Cr Hrs
Provides instruction in the advanced skills of assembly, using set standards, safety issues, use of common aircraft sheetmetal tools, sealant application, math and aircraft blueprint reading. Students learn to identify fasteners, install and remove fasteners, assemble sheetmetal components and identify and maintain proper "skin" quality. Repair techniques and the more difficult applicable skills for aviation manufacturing are the focus of this course. Students receive classroom instruction and demonstration as well as shop demonstration and performance.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environments. Students learn to utilize the different types of tools, interpret the measurement results and apply the results to industry-specific scenarios.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Aerospace Coatings & Paint Technology

ACP 100   Introduction to Coatings & Paint Technology   3 Cr Hrs
The objective of this course is to discuss the fundamentals of paint composition, application, and processing. As such, basic ingredients of paint properties will be discussed. Paint selection, performance criteria, application methods, defects, problem resolution, future paint and raw materials needs will be discussed.

ACP 101   Surface Preparation & Coatings   4 Cr Hrs
This course is a study of surface preparation from various coating and painting applications on all interior and exterior aircraft components. The content includes safety procedures including hazardous waste, surface preparations techniques, material application techniques and effectively using industry based technologies.

ACP 102   Performance & Durability of Coatings   3 Cr Hrs
The objective of this course is to discuss facts and findings affecting performance and permanence of coatings. Topics include: methods of enhancing durability and permanence, properties and selection of raw materials processes leading to robust coatings, service – life prediction, and coating evaluation.

ACP 103   Color Technology   3 Cr Hrs
This course is a study of the fundamentals of visual color match evaluation and of color measurement for industrial color control. Students utilize industry appropriate technologies on projects that demonstrate proper lighting, observe testing, objective terminology for color difference and determination of tolerances. Students analyze measurement date of the same industrial sample of study correlation of visual to measured results.

ACP 104   Specialized Coating Processess   3 Cr Hrs
This course is a study in special coatings for aerospace structures. Topics include mixing, application and curing coating materials, environmental effects of coating materials and general and hazardous material handling safety. The course also covers equipment used in these processes.

ACP 105   Specialized Detailing   3 Cr Hrs
This course provides instruction in the equipment, material, and techniques used in the application of special paints. Emphasis will be placed on aircraft refinishing procedures. Topics include: safety; paint identification; equipment use and maintenance; color application; original finish sealing; panel-spot repair and blending; thinners, reducers, and additives; and composite materials, plastics, and rubber refinishing.

ACP 106   Aerospace Coatings & Materials   3 Cr Hrs
This course covers advanced technologies for coating materials and applications. Topics include: coating technologies that address aesthetics, durability, and environmental issues.

ACP 107   Aerospace Program Management   3 Cr Hrs
This course will introduce basic program management skills and techniques. Topics covered include: role of project management, communication, interpersonal skills, schedule management, interfacing with other units, project management software use, compliance reporting, and risk management.

ACP 110   Integrated Assembly Capstone Project   3 Cr Hrs
This course addresses the full spectrum of the Coating Technicians role within the industry. Problem solving strategies within a team concept will be emphasized. Industry and applied research projects will be assigned.

ACP 110   Technical Co-Operative Project   4 Cr Hrs
Students will work on a part-time basis in a job directly related to applied technologies. The employer and supervising instructor will evaluate students' progress. Upon course completion, students will be able to apply skills and knowledge in an employment setting.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environments. Students learn to utilize the different types of tools, interpret the measurement results and apply the results to industry-specific scenarios.

AVC 103   Geometric Dimensioning & Tolerancing   1 Cr Hr
Provides an understanding of the basic terms and principles of geometric dimensioning and tolerancing (GD&T). The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols.

AVC 104   Quality Control Concepts   1 Cr Hr
Covers quality assurance principles including the history of the quality movement, group problem solving, data collection, control charts, statistical methods such as statistical process control (SPC), process capability studies and the concepts associated with lean manufacturing.

AVC 105   Aircraft Familiarization   1 Cr Hr
Provides an introduction to the world of aviation. Students are introduced to basic aerospace concepts including the history of flight, principles of flight, the role of regulation in the industry and the major aircraft systems.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

AVC 107   Fundamentals for Aerospace Manufacturing   1 Cr Hr
Provides an overview of the materials and processes used in manufacturing high performance, lightweight and reliable structures for aerospace products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology.

AVC 108   Aircraft Systems & Components   4 Cr Hrs
Provides the aviation student with an in-depth knowledge of the major systems and components of the aircraft. Students begin by learning to read the schematics of the systems and then move on to the operation of each system.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Aerospace Fiber Optics & Data Cable Installation

SPH 111   Interpersonal Communication   3 Cr Hrs
Improves individual communication skills. By understandingpendent networking certification exam, Network + or the Electronics Technicians Association, International Certified Network Systems Technician certification. This course covers networking, local area networks (LAN), wide area networks (WAN), protocols, topologies, transmission media and security; and focuses on operating network management systems and implementing the installation of networks. It reviews cabling, connection schemes, the fundamentals of the LAN and WAN technologies, TCP/IP configuration and troubleshooting, remote connectivity and network maintenance and troubleshooting. Topics include basic knowledge of networking technology, physical layer, data layer, network layer, transporter layer, TCP/IP fundamentals, TCP/IP suite — utilities, remote connectivity, security, implementing the installation of network, maintaining and support the network and troubleshooting the network.

ASF 101   Introduction to Data Cabling   3 Cr Hrs
Introduces the fundamentals of copper data cabling communication systems from low data rates systems through gigabit and higher data rate systems. It provides detailed instruction on the theory, operation, installation, testing, troubleshooting and documentation of a copper data cabling installation. Hands-on instruction is provided in Category 5e, Category 6 and RG-6 installation, termination and testing.

ASF 102   Introduction to Fiber Optics   3 Cr Hrs
Introduces the fundamentals of fiber optic communication systems from low data rates short-hauls systems through gigabit and higher data rate long-haul systems. It provides instruction in fiber optics and includes the history of fiber optics, principles of fiber optic transmission, basic principles of light, optical fiber construction and theory, optical fiber characteristics, safety, fiber optic cables, splicing, connectors, fiber optic light sources, fiber optic detectors and receivers, cable installation and hardware, fiber optic system design considerations, test equipment and link/cable testing. Hands-on instruction is provided in fiber optic connector installation, mechanical splicing, fusion splicing and testing.

ASF 103   Introduction to National Electric Code   2 Cr Hrs
Introduces the National Electrical Code (NEC) and focuses on the requirements for data and fiber optic cable installations. Emphasis is placed on grounding, bonding, cable identification, cable markings, cable types, cable substitution

and resistance to fire.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

Aerospace Quality Control

AER 150   Assembly Overview I   1 Cr Hr
Provides students with a general overview of sheetmetal and composites. Working in a hands-on setting, students learn the basics of aircraft assembly while focusing on inspection techniques.

AER 151   Electrical Overview   2 Cr Hrs
Provides the entry-level inspector with a well-rounded knowledge base in bonding, soldering and crimping. Learning the techniques and principles takes place in the classroom and laboratory settings.

AER 153   Aerospace Blueprint Reading for Inspectors   2 Cr Hrs
Continues the study of aerospace blueprint applications with an emphasis on the role of inspection. Students learn advanced skills and apply blueprint reading skills to inspection scenarios.

AER 159   Aircraft Familiarization for Inspectors   3 Cr Hrs
Provides a general familiarization of aircraft systems and processes. Topics include introduction to aircraft systems, aerospace regulations, Electrostatic Discharge (ESD), conformity and process improvement.

**AER 160   Aircraft Familiarization
              Laboratory for Inspectors   2 Cr Hrs**
Provides entry-level quality control technicians with the hands-on experience they need to expect and document aircraft systems and processes. Topics include an introduction to documentation procedures and verification of aircraft systems.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environments. Students learn how to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios.

AVC 103   Geometric Dimensioning & Tolerancing   1 Cr Hr
Provides an understanding of the basic terms and principles of geometric dimensioning and tolerancing (GD&T). The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

AER 190   Integrated Capstone Project   2 Cr Hrs
Addresses the full spectrum of the quality control technician's role within the industry. Problem-solving strategies in a team concept are emphasized. Industry and applied research projects are assigned.

AER 191   Quality Control Technician Internship   2 Cr Hrs
Students intern on a part-time basis in a position directly related to applied technologies. The employer and supervising instructor evaluate students' progress. Upon course completion, students are able to apply skills and knowledge in an employment setting.

Applied Science of Aviation Interiors

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environments. Students learn how to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios.

AVC 103   Geometric Dimensioning & Tolerancing   1 Cr Hr
Provides an understanding of the basic terms and principles

of geometric dimensioning and tolerancing (GD&T). The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols.

AVC 104   Quality Control Concepts   1 Cr Hr
Covers quality assurance principles including the history of the quality movement, group problem solving, data collection, control charts, statistical methods such as statistical process control (SPC), process capability studies and the concepts associated with lean manufacturing.

AVC 105   Aircraft Familiarization   1 Cr Hr
Provides an introduction to the world of aviation. Students are introduced to basic aerospace concepts including the history of flight, principles of flight, the role of regulation in the industry and the major aircraft systems.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

AVC 107   Fundamentals for Aerospace Manufacturing   1 Cr Hr
Provides an overview of the materials and processes used in manufacturing high performance, lightweight and reliable structures for aerospace products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology.

AVC 108   Aircraft Systems & Components   4 Cr Hrs
Provides the aviation student with an in-depth knowledge of the major systems and components of the aircraft. Students begin by learning to read the schematics of the systems and then move on to the operation of each system.

AIN 100   Hand & Power Tools   2 Cr Hrs
This course introduces students to the various hand and power tools used in the aviation industry specifically related to Aviation Interiors.

AIN 105   Regulatory Requirements   1 Cr Hrs
The course is designed to prepare students for meeting the FAA requirements when working on the interior of an aircraft. The course outlines the procedures, manuals, regulations, and documents used in performing repairs, installations, and alterations on aircraft interiors. Hazardous material regulations and procedures are also addressed.

AIN 110   Aircraft Interior Installer I   4 Cr Hrs
This course provides basic construction techniques for sheet metal and composite fixtures used in aircraft interiors. Topics include machining of materials, fastener installation, forming, preservative coatings, layout and marking to facilitate fabrication or assembly.

AIN 115   Aircraft Interior Installer II   5 Cr Hrs
This course is designed to prepare the airframe for installation including attachment and fitting of insulation, soundproofing, carpeting, as well as wall and window panels. Procedures and techniques for finish and touchup painting are included in this course.

AIN 120   Aircraft Interior Installer III   6 Cr Hrs
This course is designed to prepare students for the final

installation of interior fixtures and to prepare the aircraft for final inspection.

AIN 125   Technical Co-Operative Project   4 Cr Hrs
             for Aviation Interior Installation
The course is designed to provide the student with practical hands-on experience working on Aircraft Interior Installations. Students will be required to work on a variety of projects in order to develop diagnostic skills, to reinforce and enhance classroom instruction. Students will work on a part-time basis in a job directly related to applied technologies. This course addresses the full spectrum of Aviation Interior Installers role with the industry. Problem solving strategies within a team concept will be emphasized. Industry and applied research projects will be assigned.

AIN 130   Integrated Assembly Capstone Project   4 Cr Hrs
This course addresses the full spectrum of the Aviation Interiors technician's role within the industry. Problem solving strategies within a team concept will be emphasized. Industry and applied projects will be assigned.

CAT 122   CATIA Enovia DMU   2 Cr Hrs
This course is intended for student who want to learn to view and analyze CAD data. It also covers the various analytical and navigational tools available within ENOVIA DMU. It will also show how functional dimensioning and tolerancing information can be viewed. Students are introduced to the product environment and the 2D viewer environment to view all types of data.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Applied Science of Aviation Manufacturing

AER 132   Aerostructures Assembly   4 Cr Hrs
Provides students with the skills and knowledge to succeed in the aircraft manufacturing and service industry. Students receive classroom instruction and shop demonstration. Instruction includes the fundamentals of blueprint reading, precision measurement, communication and math skills, business operations and environmental health and safety. Instruction also includes the fundamentals of assembly, meeting manufacturing standards, use of common aircraft sheetmetal tools and sealant application. Students learn how to identify fasteners, install and remove fasteners, assemble sheetmetal components and identify and maintain proper "skin" quality.

AER 133   Advanced Aerostructures   2 Cr Hrs
Provides students with instruction in advanced assembly techniques including dimpling, repair, sealing, removal and replacement of fasteners and curved surfaces. Emphasis is placed on the demonstration and practicing of techniques in the laboratory setting.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on the skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environment. Students learn to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios.

AVC 103   Geometric Dimensioning & Tolerancing   1 Cr Hr
Provides an understanding of the basic terms and principles of geometric dimensioning and tolerancing (GD&T). The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols.

AVC 104   Quality Control Concepts   1 Cr Hr
Covers quality assurance principles including the history of the quality movement, group problem solving, data collection, control charts, statistical methods such as statistical process control (SPC), process capability studies and the concepts associated with lean manufacturing.

AVC 105   Aircraft Familiarization   1 Cr Hr
Provides an introduction to the world of aviation. Students are introduced to basic aerospace concepts including the history of flight, principles of flight, the role of regulation in the industry and the major aircraft systems.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

AVC 107   Fundamentals for Aerospace Manufacturing   1 Cr Hr
Provides an overview of the materials and processes used in manufacturing high performance, lightweight and reliable structures for aerospace products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology.

AVC 108   Aircraft Systems & Components   4 Cr Hrs
Provides the aviation student with an in-depth knowledge of the major systems and components of the aircraft. Students begin by learning to read the schematics of the systems and then move on to the operation of each system.

AVT 101   Basic Electricity & Electronics   3 Cr Hrs
For beginning students who have little or no knowledge about fundamental concepts of electricity and electronics. It is helpful, however, if students have some basic knowledge of algebra and trigonometry. In covering fundamentals of electricity and electronics, this course focuses on essential topics for the technician and the all-important development of testing and troubleshooting skills for electronic circuits and systems.

AVT 102   Basic Electricity & Electronics Laboratory   4 Cr Hrs
Developed especially for use with the AVT 101 Basic Electricity & Electronics course. The experiments are coordinated with the text used in AVT 101. The experiments are presented starting with a review of mathematical concepts important for the understanding of the fundamental underlining principles of electricity and electronics. These experiments build on one another and provide validation of lessons learned in theory provided in AVT 101.

AVT 103   Introduction to Avionics   3 Cr Hrs
Covers major phases of avionics from navigation, communication and surveillance to sophisticated systems using state-of-the-art sensors and computations. Procedures and practices are also presented. The intent is to give students and/or technicians an overview of the entire avionics field, not just a single airborne or ground system. An important role of avionics and aviation is the abbreviations and acronyms used in the aviation industry. These are introduced and emphasis is placed on the most commonly used in today's environment.

AVT 108   Wiring & Cannon Plug Laboratory   2 Cr Hrs
Designed to help students prepare to troubleshoot and repair wire harnesses and cannon plug repair.

CFT 101   Introduction to Composites   2 Cr Hrs
An introductory course into the materials and processes associated with polymer composite structures, components and design. Emphasis is placed on material properties, manufacturing process and safety. Hands-on laboratory activities supplement classroom content.

CFT 106   Composite Finish Trim   2 Cr Hrs
Provides students with an understanding of the processes and procedures used to finish trim composite parts. Topics include safety, documentation, tools, procedures and inspection.

CFT 107   Composite Assembly   2 Cr Hrs
Teaches the fundamentals of joining composite structures. Adhesive bonding as well as mechanical fasteners is covered. Safe procedures are emphasized. Hole preparation for mechanical fasteners and surface preparation for adhesive bondings are essential elements of this course. The course consists of theory and practical application through hands-on projects.

CFT 130   Composite Fabrication Methods & Applications   2 Cr Hrs
Fundamentals of composite structure fabrication methods and applications are covered including, hand lay-up, bonding, vacuum bagging and resin transfer molding. Emphasis is also placed on composite safety and inspection/testing of composite components.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Aviation Maintenance Technology

AMT 105   Technical Mathematics   2 Cr Hrs
Studies multiple concepts in mathematics. Students obtain functional efficiency in ratios, proportions, areas, volumes, angular measurements, graphs, roots, squares, cubes and basic trigonometry.

AMT 107   Aircraft Drawings   1 Cr Hr
Studies the basics of blueprint drawings, and students practice obtaining desired information from blueprints. Includes types of drawings, lines, dimensions, tolerances, specifications, sketching techniques and graphic interpolation.

AMT 108   Aircraft Coverings   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to airframe coverings. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to the Airframe Subjects No. 4 and No. 5.

AMT 109   Physics   2 Cr Hrs
Provides basic information on principles, fundamentals and technical procedures of physics as they relate to an aircraft.

AMT 111   Materials & Processes   4 Cr Hrs
Allows students to identify plumbing lines by size and fitting, different tube forming processes and types of aircraft bolts and threaded fasteners. Students are able to demonstrate knowledge of torques, torque wrenches, control cables, rivets, seals, wipers and sealing compounds and acquire technical skills required for preventative maintenance inspections.

AMT 112   Assembly & Rigging   4 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft assembly and rigging. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to the airframe mechanic.

AMT 113   Basic Electricity   4 Cr Hrs
A fundamental treatment of electricity with emphasis on physical circuit components, direct current circuit analysis and related mathematics.

AMT 115   Weight & Balance   2 Cr Hrs
An introduction to Federal Aviation Administration required subjects relating to weighing of aircraft, the performance of weight and balance calculations and appropriate maintenance record entries.

AMT 116   Aircraft instrument Systems   1 Cr Hr
Develops correct safety practices, comprehensive knowledge and technical skills required to performing maintenance procedures relevant to aircraft instrument systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 36 and No. 37.

AMT 117   Mechanics Privileges & Limitations   1 Cr Hr
Acquaints and exercises mechanic privileges within the limitations prescribed by Part 65 of the Federal Aviation Regulations Aviation Maintenance Technology manual.

AMT 119   Maintenance Publications, Forms & Records   2 Cr Hrs
Enables students to read, comprehend and apply information contained in Federal Aviation Administration and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications and related Federal Aviation Administration regulations. Teaches students how to write descriptions of work performed including aircraft discrepancies and corrective actions using typical aircraft maintenance records.

AMT 120   Airframe Inspection   3 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to airframe inspection. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subject No. 28.

AMT 123   Cleaning & Corrosion Control   1 Cr Hr
Provides basic information on identifying and selecting cleaning materials, inspecting, removing and treating aircraft corrosion and performing aircraft cleaning.

AMT 125   Fluid Lines & Fittings   1 Cr Hr
Provides basic information on principles, fundamentals and technical procedures relating to fuel, fuel systems, fluid lines and fittings.

AMT 127   Ground Operations & Service   2 Cr Hrs
Provides basic information on principles, fundamentals and technical procedures used in ground handling and support equipment as they relate to an aircraft. Students learn to demonstrate the correct and safe procedures for aircraft tie down, fueling, using auxiliary power units and identifying the different types of fire extinguishers and their proper applications.

AMT 131   General Review & Test   1 Cr Hr
Upon completion of Airframe or Powerplant, students complete the General Laser Grade written exam and complete the general oral and practical exam.

AMT 136   Propellers   4 Cr Hrs
Provides basic information on principles, fundamentals and technical procedures associated with propellers as they relate to the powerplant rating. Students learn how to inspect, check, service and repair propeller synchronizing and ice control systems; repair fixed-pitch, constant-speed and feathering propellers and propeller-governing systems; identify and select propeller lubricants; balance propellers; repair propeller control system components; and repair aluminum alloy propeller blades.

AMT 151   Aircraft Electrical Systems   6 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft electrical systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 48, No. 49 and No. 50.

AMT 153   Hydraulic & Pneumatic Power Systems   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to hydraulic and pneumatic power systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 30, No. 31 and No. 32.

AMT 155   Aircraft Landing Gear Systems   4 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft landing gear systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subject No. 29.

AMT 159   Aircraft Fuel Systems   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft fuel systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 41, No. 42, No. 43, No. 44, No. 45, No. 46 and No. 47.

AMT 161   Fire Protection Systems   1 Cr Hr
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to fire protection systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 54 and No. 55.

AMT 163   Ice & Rain Control Systems   1 Cr Hr
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to ice and rain control systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subject No. 53.

AMT 165   Cabin Atmosphere Control Systems   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to cabin atmosphere control systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 33, No. 34 and No. 35.

AMT 167   Aircraft Welding   2 Cr Hrs
Topics address repair procedures for steel, magnesium, brass and aluminum materials used in aircraft assembly and selection and application of appropriate methods of welding, brazing and soldering steel, magnesium, brass and aluminum.

AMT 169   Communication & Navigation Systems   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft communication and navigation systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 38, No. 39 and No. 40.

AMT 173   Position & Warning Systems   1 Cr Hr
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft position and warning systems. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to the Airframe mechanic.

AMT 177   Wood Structures   1 Cr Hr
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to airframe wood structure. The curriculum is designed to meet specific Federal Aviation

Administration regulations that pertain to the airframe mechanic.

AMT 179   Aircraft Sheetmetal & Non-Metallic Structures   8 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to airframe aircraft sheetmetal structures. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to the Airframe mechanic.

AMT 183   Aircraft Finishes   2 Cr Hrs
Develops correct safety practices, comprehensive knowledge and technical skills required to perform maintenance procedures relevant to aircraft finishes. The curriculum is designed to meet specific Federal Aviation Administration regulations that pertain to Airframe Subjects No. 7, No. 8 and No. 9. Academic standard for passing this class is a minimum of 70 percent for the written and practical project exams.

AMT 186   Airframe Review & Test   4 Cr Hrs
Students apply for Airframe certification, complete the Airframe Laser Grade written exam and the Airframe oral and practical exam.

AMT 200   Reciprocating Engines   11 Cr Hrs
Enables students to inspect and repair radial engines; overhaul reciprocating engines; inspect, check, service and repair opposed and radial engines and reciprocating engine installations; troubleshoot and remove reciprocating engines; and perform powerplant conformity and airworthiness inspections.

AMT 202   Engine Inspection   2 Cr Hrs
Enables students to perform powerplant conformity and airworthiness inspections.

AMT 203   Powerplant Ignition Systems   3 Cr Hrs
Enables students to overhaul magneto and ignition harness, repair engine ignition and starting system components, inspect, check, service, troubleshoot and repair reciprocating and turbine engine ignition systems and pneumatic starting system components.

AMT 204   Engine Fuel Systems   1 Cr Hr
Enables students to inspect, check, service, troubleshoot and repair engine fuel systems and components.

AMT 206   Auxiliary Power Units   1 Cr Hr
Enables students to inspect, check, service and troubleshoot turbine-driven auxiliary power units and provide basic information on principles, fundamentals and technical procedures involving auxiliary power units as they relate to the powerplant rating.

AMT 207   Fuel Metering Systems   4 Cr Hrs
Enables students to overhaul aircraft carburetors, repair engine fuel metering system components, inspect, check, service, troubleshoot repair and adjust turbine engine fuel-metering systems and electronic engine fuel controls and reciprocating engine fuel metering systems.

AMT 208   Engine Electrical Systems   2 Cr Hrs
Provides students with the basic information to install, check, service and repair engine electrical system components, electrical wiring, controls, switches, indicators and protective devices.

AMT 211   Powerplant Cooling Systems   1 Cr Hr
Enables students to repair engine cooling system components and inspect, check, troubleshoot, service and repair engine cooling systems.

AMT 213   Powerplant Lubrication Systems   3 Cr Hrs
Enables students to learn to identify and select correct lubricants for aircraft use, repair engine lubrication system components and inspect, check, service, troubleshoot and repair engine lubrication systems.

AMT 217   Induction Systems   1 Cr Hr
Covers the basics of induction and airflow systems. Students learn to inspect, check, troubleshoot, service and repair engine ice and rain control systems, heat exchangers, superchargers and turbine engine airflow and temperature control systems as well as carburetor air intake and induction manifolds.

AMT 219   Powerplant Exhaust Systems   2 Cr Hrs
Enables students to learn to repair engine exhaust system components, inspect, check, troubleshoot, service and repair engine exhaust systems and engine thrust reverser systems and related components.

AMT 223   Powerplant Fire Protection Systems   1 Cr Hr
Provides basic information on principles, fundamentals and technical procedures in the engine fire-protection system as it relates to the powerplant rating. Students learn to inspect, check, service, troubleshoot and repair engine fire-detection and extinguishing systems.

AMT 225   Powerplant Instrument Systems   1 Cr Hr
Enables students to troubleshoot, service, inspect and repair electrical and mechanical fluid rate-of-flow indicating systems and engine temperature, pressure and revolutions per minute (RPM) indicating systems.

AMT 227   Turbine Engines   9 Cr Hrs
Enables students to overhaul, install, troubleshoot and remove turbine engines. Students inspect unducted fans; check, service and repair turbine engines and turbine engine installations; and perform powerplant conformity and airworthiness inspections.

AMT 231   Powerplant Test & Review   4 Cr Hrs
Students apply for Powerplant certification, complete the Powerplant Laser Grade written exam and complete the Powerplant oral and practical exams.

Avionics Technology

AVT 100   Technical Mathematics   3 Cr Hrs
Provides technical math principles.

AVT 101   Basic Electricity & Electronics   3 Cr Hrs
For the beginning student who has little or no knowledge about fundamental concepts of electricity and electronics. It is helpful, however, if the student has some basic knowledge of algebra and trigonometry. In covering fundamentals of electricity and electronics, this course focuses on essential topics for the technician and the all-important development of testing and troubleshooting skills for electronic circuits and systems.

AVT 102   Basic Electricity & Electronics Laboratory   4 Cr Hrs
Developed especially for use with AVT 101 Basic Electricity & Electronics course. The experiments coordinate with text used in AVT 101. The experiments are presented starting with a review of mathematical concepts important for the understanding of the fundamental underlining principles of electricity and electronics. These experiments build on one another and provide validation of lessons learned in theory provided in AVT 101.

AVT 103   Introduction to Avionics   3 Cr Hrs
Covers major phases of avionics from navigation, communication and surveillance to sophisticated systems using state-of-the-art sensors and computations. Procedures and practices are also presented. The intent is to give students and/or technicians an overview of the entire avionics field, not just a single airborne or ground system. An important role of avionics and aviation are the abbreviations and acronyms used in the aviation industry. These are introduced and emphasis is placed on the ones most commonly used in today's environment.

AVT 105   Avionics Systems & Troubleshooting   2 Cr Hrs
Helps students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward a Federal Communications Commission general class radiotelephone license. Students develop the safety procedures and competencies needed to apply the principles of avionics operation and maintenance required of avionics technicians.

AVT 106   Avionics Systems
**   & Troubleshooting Laboratory   2 Cr Hrs**
Helps students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward an Federal Communications Commission general class radiotelephone license. Students develop the safety procedures and competencies needed to apply the principles of avionics operation and maintenance required of avionics technicians.

AVT 107   Basic Communications Electronics   3 Cr Hrs
Helps students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward a Federal Communications Commission general class radiotelephone license. Students develop the safety procedures and competencies needed to apply the principles of electronics that are required of avionics technicians.

AVT 108   Wiring & Cannon Plug Laboratory   2 Cr Hrs
Designed to help students prepare to troubleshoot and repair wire harnesses and cannon plug repair.

AVT 110   Aircraft Electrical, Communication
**   & Navigation Systems (Part 1)   3 Cr Hrs**
Studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair

antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 111   Aircraft Electrical, Communication
& Navigation Systems (Part 1) Laboratory   3 Cr Hrs
Studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 112   Aircraft Electrical, Communication
& Navigation Systems (Part 2)   3 Cr Hrs
Studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 113   Aircraft Electrical, Communication
& Navigation Systems (Part 2) Laboratory   3 Cr Hrs
Studies aircraft electrical, communication and navigation systems. Topics include install, check and service airframe electrical wiring, controls, switches, indicators and protective devices; inspect, check, troubleshoot, service and repair alternating and direct current electrical systems; repair and inspect aircraft electrical system components, crimp and splice wiring to manufacturer's specifications and repair pins and sockets of aircraft connectors; inspect, check and troubleshoot autopilot servos and approach coupling systems; inspect, check and service aircraft electronic communication and navigation systems including VHF passenger address interphones and static discharge devices, aircraft VOR, ILS LORAN, radar beacon transponders, flight management computers and GPWS; inspect and repair antenna and electronic equipment installations; and inspect, check and troubleshoot constant speed and integrated speed drive generators.

AVT 115   Basic Communications Electronics Laboratory   4 Cr Hrs
Helps students increase their knowledge and acquire the

hands-on skills to work in the avionics field and work toward a Federal Communications Commission general class radiotelephone license. Students develop the safety procedures and competencies needed to apply the principles of electronics that are required of avionics technicians.

AVT 120   Principles of Avionics   3 Cr Hrs
Helps students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward a Federal Communications Commission general class radiotelephone license. Introduces students to a more advanced understanding of the principles involved in avionics.

AVT 121   Certification Preparation I for NCATT   3 Cr Hrs
Helps students increase their knowledge and acquire the hands-on skills to work in the avionics field and work toward an associate of applied science degree in Avionics Technology.

AVT 122   Certification Preparation II for NCATT   3 Cr Hrs
Helps student increase the knowledge and skills required to troubleshoot and repair practical electronics projects.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Composite Technology

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on the skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

AVC 102   Precision Instruments   1 Cr Hr
Provides students with the knowledge and skills needed to utilize precision measurement tools in the manufacturing and aerospace environment. Students learn to utilize the different types of tools, interpret the measurement results and apply those results to industry specific scenarios.

AVC 103   Geometric Dimensioning & Tolerancing   1 Cr Hr
Provides an understanding of the basic terms and principles of geometric dimensioning and tolerancing (GD&T). The course provides students with the skills and knowledge necessary to identify GD&T symbols and how to interpret those symbols.

AVC 105   Aircraft Familiarization   1 Cr Hr
Provides an introduction to the world of aviation. Students are introduced to basic aerospace concepts including the history of flight, principles of flight, the role of regulation in the industry and the major aircraft systems.

AVC 106   Aerospace Blueprint Reading   2 Cr Hrs
Builds basic blueprint reading skills and leads to a systematic approach to reading aircraft blueprints. Students learn a systematic approach to reading aircraft blueprints through actual manipulation of working drawings.

AVC 108   Aircraft Systems & Components   4 Cr Hrs
Provides the aviation student with an in-depth knowledge of the major systems and components of the aircraft. Students begin by learning to read the schematics of the systems and then move on to the operation of each system.

CAT 122   CATIA Enovia DMU   2 Cr Hrs
This course is intended for student who want to learn to view and analyze CAD data. It also covers the various analytical and navigational tools available within ENOVIA DMU. It will also show how functional dimensioning and tolerancing information can be viewed. Students are introduced to the product environment and the 2D viewer environment to view all types of data.

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy and keyboarding skills and meets the needs of students in associate degree programs and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CFT 101   Introduction to Composites   2 Cr Hrs
An introductory course for the materials and processes associated with polymer composite structures, components and design. Emphasis is placed on material properties (resins and fibers), manufacturing processes and safety. Some hands-on laboratory activities supplement classroom content.

CFT 106   Composite Finish Trim   2 Cr Hrs
Gives students the skills necessary to safely apply the trim and finishing tools used with composite materials. Teaches how to use trim fixtures, grinding and sanding tools, routers, cutoff wheels, band saw and other power tools. The finish component includes the preparation and application of surfacing products, surface coats, bonding primers, etc. Painting of composite surfaces is taught also.

CFT 107   Composite Assembly   2 Cr Hrs
Teaches the fundamentals of joining composite structures, covers adhesive bonding and mechanical fastening and emphasizes safe procedures. Hole preparation for mechanical fastening and surface preparation for adhesive bonding are essential elements of this course. The course consists of theory and practical application through hands-on projects.

CFT 130   Composite Fabrication Methods & Applications   2 Cr Hrs
Covers fundamentals of composite structure fabrication methods and applications including hand lay-up, bonding, vacuum bagging and resin transfer molding. Emphasis is also placed on composite safety and inspection/testing of composite components.

CFT 140   Composite Inspection   2 Cr Hrs
Provides students with an understanding of the inspection process during repair procedures. Students learn the role of repair technicians in the inspection process while obtaining hands-on experience in basic Nondestructive Inspection (NDI) testing techniques. Emphasis is placed on the importance of documentation in the inspection of repair.

CFT 141   Disassemble & Damage Removal Techniques   3 Cr Hrs
Provides student with the knowledge required to safely and effectively prepare a part for repair. In the laboratory setting, students learn to effectively remove finish and disassemble and remove damaged composite material. Special attention is paid on developing students' tactile skills in all of these areas.

CFT 142   Composite Repair   4 Cr Hrs
Provides students with the knowledge and techniques used in structural repairs of aircraft made with composite materials. Students complete multiple industry-based projects designed to challenge their skills with both wet lay-up and pre-preg materials.

CFT 143   Complex Composite Repairs   3 Cr Hrs
Provides students with hands-on experience working with nonstructural composite repairs. Instruction includes learning how to solve problems presented in non-production atmospheres in relation to composite repairs. Students also review case studies and problem- solving models.

CFT 144   Electrical Bonding Repair   1 Cr Hr
Provides students with the knowledge and skills used in electrical bonding composite repair. Students learn theory and application using secondary bonding techniques.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

Nondestructive Testing

NDT 100   Penetrant Inspection   2 Cr Hrs
Students master the competencies associated with liquid penetrant testing at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 101   Magnetic Particle Inspection   3 Cr Hrs
Students master the competencies associated with the magnetic particle testing method at Level I and Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 102   Radiographic Testing Method I   3 Cr Hrs
Students master the competencies associated with radiographic testing at Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 103   Radiographic Testing Method II   3 Cr Hrs
Students master the competencies associated with radiographic testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 104   Materials & Processes for NDT Technology   3 Cr Hrs
Explains the basic principles of material manufacturing processes, discontinuities and defects as related to the

major nondestructive testing methods. This course is an introduction to penetrant liquid, Magnetic Particle Inspection Level I, Eddy Current, Radiographic Testing Method and Ultrasonic Testing Method courses. This course gives students an overview of nondestructive testing disciplines with regard to identifying defects and proper nondestructive inspection application.

NDT 110   Eddy Current Level I   **3 Cr Hrs**
Students master the competencies associated with electromagnetic (eddy current) testing at Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 111   Eddy Current Level II   **3 Cr Hrs**
Students master the competencies associated with electromagnetic (eddy current) testing at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 112   Ultrasonic Testing Method Level I   **3 Cr Hrs**
Students master the competencies associated with Ultrasonic Testing Methods at Level I. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 113   Ultrasonic Testing Method Level II   **3 Cr Hrs**
Students master the competencies associated with Ultrasonic Testing Methods at Level II. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

NDT 114   Visual Inspection   **3 Cr Hrs**
Students master the competencies associated with visual inspection. This course adheres to the standards developed by the American Society for Nondestructive Testing (ASNT). Laboratory work parallels lecture materials from the classroom.

Business and Technology

Administrative Office Technology (online)

ACC 105   Fundamentals of Accounting   **3 Cr Hrs**
Designed for students who want a working knowledge of accounting, but not to the extent as a person working primarily in the accounting field. Although the basic accounting principles are learned and applied, the course, in comparison to Principles of Accounting I, covers a smaller amount of material at a somewhat slower pace. Recommended for students with no previous accounting background.

BUS 104   Introduction to Business   **3 Cr Hrs**
A study of various types of business organizations and the relationships of business to government and management to labor. Management's perspective of production, marketing, personnel, finance and transportation is a constant consideration.

BUS 106   Office Procedures   **3 Cr Hrs**
Prepares students to handle situations in an office setting. Students learn office management skills including communication, diversity and organization skills.

BUS 121   Business Communications   **3 Cr Hrs**
Provides knowledge and application of written and oral communications found in business situations. Topics include writing and speaking fundamentals.

BUS 125   Business Law   **3 Cr Hrs**
A basic introductory law course covering the legal and social environment within which business operates, including the structure, processes and procedures of the American legal system. A substantial portion of the course is devoted to contracts.

BUS 130   Personal Finance   **3 Cr Hrs**
Designed for non-business majors as well as for business majors. Course concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

BUS 200   Principles of Management   **3 Cr Hrs**
Explores the basic management functions of planning and controlling pertaining to the type of business for which students are preparing to work. The basic management theories, functions and aspects of various types of business are studied.

CED 107   Database & File Management   **3 Cr Hrs**
Provides students with opportunities to study the rules of record management and is an introduction to Microsoft Access 2007. Students who complete this course should have sufficient background to organize recordkeeping and perform sort, queries and manage databases in Microsoft Access 2007.

CED 108   Word Processing   **3 Cr Hrs**
Emphasizes an intensive use of word processing software to create and revise business documents. Topics include

equipment and supplies maintenance and usage, work area management, word processing software and productivity.

CED 115   Computer Applications   3 Cr Hrs
Introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, introduction to the Windows environment, networking, word processing, spreadsheets and databases.

ECO 105   Principles of Macroeconomics   3 Cr Hrs
Explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed.

ECO 110   Principles of Microeconomics   3 Cr Hrs
Attention is given to the methods of producing the goods and services that the economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms, business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform.

PHL 110   Ethics   3 Cr Hrs
A practical approach to recognizing, understanding and solving ethical problems confronting individuals in today's society. Basic concepts of applied ethical theories in moral philosophy and reasoning are examined using critical-thinking and responsible decision-making skills.

Business Administration

ACC 104   Computerized Accounting   3 Cr Hrs
Emphasizes a fundamental understanding of corporate and cost accounting. Topics include accounting for a corporation, statement of cash flows, cost accounting, budgeting and long-term liabilities. Laboratory work demonstrates theory presented in class.

ACC 130   Managerial Accounting   3 Cr Hrs
Studies management tools for business decision making, including the evaluation of financial condition and performance of business. Emphasis is given to the process of formulating and utilizing sound accounting data to evaluate alternatives involved in managerial decision-making necessary for planning, executing and controlling a business enterprise. *Prerequisite: Minimum grade of C in ACC 170 Principles of Accounting II.*

ACC 152   Payroll Accounting   3 Cr Hrs
Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers and analyzing and journalizing payroll transactions. Provides first-hand experience in calculating payroll, completing payroll taxes and preparing records and reports. Topics include payroll tax entries, preparing payroll registers and maintaining employees' earnings records using computerized software.

ACC 160   Principles of Accounting I   3 Cr Hrs
Helps students develop a basic understanding of accounting

theory, concepts and procedures. It provides a foundation for further study for students seeking a career in accounting or business administration or for students entering the occupational field.

ACC 170   Principles of Accounting II   3 Cr Hrs
A continuation of ACC 160 Principles of Accounting I. Studies corporations including organization and operations; stockholders' equity, earnings and dividends; long-term assets and liabilities, investments, income tax and their effort on business decisions; and assessing a company's financial performance.

BAF 103   Finance   3 Cr Hrs
Provides an introduction to financial markets, institutions and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds and the financial principles and concepts behind sound financial management. Topics include financial systems of the United States, business financial management and financing other sectors of the economy.

BAF 105   Introduction to US Financial System   3 Cr Hrs
Emphasizes the relevance of monetary instruments, intermediaries and the central banks as they impact local, state, national and international economics. Topics include history and evolution of financial institutions; monetary instruments and flow; and central banking, operation and policies.

BAF 121   Introduction to Bank Management   3 Cr Hrs
Introduces and applies the components of the continuous development in bank structure and changes in the financial services offered to consumers and businesses. This is a study of the factors that must be achieved to compete in today's marketplace.

BMT 101   Optimize Your Website–
**   Beginning Search Engine Optimization 1 Cr Hr**
Provides an understanding of how search engine optimization techniques can be used to improve a Web site and increase its traffic. Emphasis is on understanding how search engines work, the search engine operation (SEO) process, tools and techniques on how you can optimize your Web site.

CED 115   Computer Applications   3 Cr Hrs
Introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, introduction to the Windows environment, networking, word processing, spreadsheets and databases. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

BMT 105   Online Advertising–Beginning Google AdWords   1 Cr Hr
Provides an understanding of how to plan and create a successful online advertising campaign using Google AdWords. Emphasis is on understanding how the AdWords system works, how campaigns should be structured and how keyword lists and ads are developed. Also introduces Google Analytics and conversion tracking and explains the billing cycle.

BMT 110   Blogging for your Business   1 Cr Hr
Provides an understanding of how to plan and create a

successful blogging campaign. Promoting your business by delivering marketing messages in the form of a blog can help attract and retain customers. Blogging can be part of an online marketing campaign, which is a critical skill for today's business owner and business student.

BMT 115   Beginning E-Mail Marketing   1 Cr Hr
Provides an understanding of how to plan an e-mail marketing campaign. Examines best practices for sending e-mail messages; discusses deliverability, tracking, list building and Controlling the Assault of Non-Solicited Pornography and Marketing (CAN-SPAM) compliance issues.

BMT 120   Social Media Madness   1 Cr Hr
Provides an understanding of what social media is and how it can be used in marketing your business. Examines ways to engage social media to promote a product, brand or identity.

BUS 104   Introduction to Business   3 Cr Hrs
Studies various types of business organizations and the relationships of business to government and management to labor. Management's perspective of production, marketing, personnel, finance and transportation is a constant consideration.

BUS 125   Business Law   3 Cr Hrs
A basic introductory law course covering the legal and social environment within which business operates, including the structure, processes and procedures of the American legal system. A substantial portion of the course is devoted to contracts.

BUS 130   Personal Finance   3 Cr Hrs
Designed for non-business majors as well as for business majors. Course concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

BUS 140   Principles of Marketing   3 Cr Hrs
Production and marketing of goods and services are the essence of economic life in any society. All organizations perform these two basic functions to satisfy their commitments to society, their customers and their owners. Marketing examines the problems of transferring title and moving goods from producer to consumer, buying, selling, storing, transporting, standardizing, financing, risk-bearing and supplying market information. The free enterprise and the government's contribution, retailing and international marketing are discussed at length.

BUS 200   Principles of Management   3 Cr Hrs
Explores the basic management functions of planning and controlling that pertain to the type of business for which student is preparing to work on a career basis. The basic management theories, functions and aspects of various types of business are studied.

ECO 105   Principles of Macroeconomics   3 Cr Hrs
Explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed.

ECO 110   Principles of Microeconomics   3 Cr Hrs
Attention is given to the methods of producing the goods and services that the economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms, business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform.

LEN 100   Lean for Operations   3 Cr Hrs
Familiarizes students with the concepts and practices of lean manufacturing as applied in industry today. Students begin with a discussion of lean manufacturing's place in the overall process of continuous improvement. Students then move on to learning to apply basic elements of lean, lean system design, lean tools and measurement methods to industry-based scenarios.

OPM 100   Lean Sigma   3 Cr Hrs
Teach students the basics of both Lean and Six Sigma and how these problem-solving methodologies apply to manufacturing and service organizations. Students completing this course are better prepared for real-world business issues and have the ability to apply these concepts and tools at a basic level.

OPM 105   Operations Management   3 Cr Hrs
                   for Organizational Success
Introduces and applies the components of the continuous improvement philosophy and process to the operations of organizations. The study of dynamic management involvement and the use of continuous evaluation tools are reviewed and applied. These include applied management techniques and statistical measures of business processes.

OPM 110   Introduction to Supply Chain Management   3 Cr Hrs
Introduces the building blocks of supply chain (SC) strategy and the relationship with SC corporate strategy. Defines the elements of supply chain management (SCM), including the importance of collaborating and partnering in a competitive business environment. Discusses the need for measures to manage the business and how the financial aspects are affected by SCM. Discusses outsourcing and why companies outsource to remain competitive.

OPM 115   Introduction to Project Management   3 Cr Hrs
Focuses on a holistic approach to project management. The content deals with planning, scheduling, organizing and controlling projects such as product development, construction, information systems, new businesses and special events. The course includes major topics of strategy, priorities, organization, project tools and leadership. Primary emphasis is on the project management process and tools, which is becoming more important in today's world. Mastery of key tools and concepts could give students a significant competitive advantage in the marketplace.

PHR 105   Negotiations & Relationship Management   3 Cr Hrs
Helps students understand the principles, strategies and tactics of effective negotiation and relationship management. Students learn to identify and assess negotiation variables, develop an effective negotiation plan and implement various strategies and tactics to ethically resolve conflicts and interpersonal differences.

PSS 100   Six Sigma Yellow Belt   1 Cr Hr
Introduces the fundamentals of Six Sigma to individual process owners and operators who can then act as team

members on Six Sigma projects. Not only do these Yellow Belts gain the skills necessary to identify, monitor and control profit-eating practices in their own processes, but they are also prepared to feed that information to Green Belts and Black Belts working on larger system projects.

PSS 101   Six Sigma Green Belt Methods   3 Cr Hrs
Designed to help adult learners understand Six Sigma concepts and be able to apply their knowledge to real problems. It also addresses the challenges of change management and data management.

PSS 105   Six Sigma Green Belt Statistics   3 Cr Hrs
Students develop an in-depth understanding of how computers and statistical software are essential components in the business world and society in general for exploring data in-depth, using data simulation, screening data for errors, manipulating data, performing transformations and focusing on the use of the computer and statistical software as a valuable productivity and data analysis tool.

PSS 115   Six Sigma Black Belt Methods   3 Cr Hrs
Incorporates data and statistical analysis into a project-based workflow that allows businesses to make intelligent decisions about where and how to incorporate improvements.

PSS 120   Six Sigma Black Belt Experimentation   3 Cr Hrs
              & Transfer Function
Students will learn how to manipulate data with statistical tools to transform it into valuable information (numeric and/ or graphic). This data will be incorporated into a project.

Entrepreneurship

ACC 130   Managerial Accounting   3 Cr Hrs
Studies management tools for business decision making, including the evaluation of financial condition and performance of business. Emphasis is given to the process of formulating and utilizing sound accounting data to evaluate alternatives involved in managerial decision-making necessary for planning, executing and controlling a business enterprise. *Prerequisite: Minimum grade of C in ACC 170 Principles of Accounting II.*

ACC 160   Principles of Accounting I   3 Cr Hrs
Helps students develop a basic understanding of accounting theory, concepts and procedures. It provides a foundation for further study for students seeking a career in accounting or business administration or for students entering this occupational field.

ACC 170   Principles of Accounting II   3 Cr Hrs
A continuation of ACC 160 Principles of Accounting I. A study of corporations that includes organization and operations; stockholders' equity, earnings and dividends; long-term assets and liabilities, investments, income tax and their efforts on business decisions; and assessing a company's financial performance.

BUS 104   Introduction to Business   3 Cr Hrs
Studies various types of business organizations and the relationships of business to government and management to labor. Management's perspective of production, marketing, personnel, finance and transportation is a constant consideration.

BUS 125   Business Law   3 Cr Hrs
A basic introductory law course covering the legal and social environment within which businesses operate, including the structure, processes and procedures of the American legal system. A substantial portion of the course is devoted to contracts.

BUS 130   Personal Finance   3 Cr Hrs
Designed for non-business majors as well as for business majors. Course concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

BUS 140   Principles of Marketing   3 Cr Hrs
Production and marketing of goods and services are the essence of economic life in any society. All organizations perform these two basic functions to satisfy their commitments to society, their customers and their owners. Marketing examines the problems of transferring title and moving goods from producer to consumer, buying, selling, storing, transporting, standardizing, financing, risk-bearing and supplying market information. The free enterprise and the government's contribution, retailing and international marketing are discussed at length.

BUS 200   Principles of Management   3 Cr Hrs
Explores the basic management functions of planning and controlling that which pertains to the type of business for which the student is preparing to work on a career basis. The basic management theories, functions and aspects of various types of business are studied.

CED 115   Computer Applications   3 Cr Hrs
Introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, introduction to the Windows environment, networking, word processing, spreadsheets and databases.

ECO 105   Principles of Macroeconomics   3 Cr Hrs
Explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed.

ECO 110   Principles of Microeconomics   3 Cr Hrs
Attention is given to the methods of producing the goods and services that the economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms, business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform.

ENT 110   Introduction to Entrepreneurship   3 Cr Hrs
Familiarizes students with the world of small business. Students are introduced to the concepts needed to seek out business opportunities as well as the tools needed to evaluate successful ventures. Considerable attention is given to the concepts of planning, financing and marketing new businesses.

ENT 115   Entrepreneurship II   3 Cr Hrs
The marketplace has changed dramatically over the last 20 years. To compete and grow, small businesses must do

more than just give lip service to putting the customer at the center of the business. Students learn the different paths to business ownership, how to effectively market new products, management strategies for the 21st century and how to plan financially for a business.

OPM 115   Introduction to Project Management   3 Cr Hrs
Focuses on a holistic approach to project management. The content deals with planning, scheduling, organizing and controlling projects such as product development, construction, information systems, new businesses and special events. The course includes major topics of strategy, priorities, organization, project tools and leadership. Primary class emphasis is on the project management process and tools, which is becoming more important in today's world. Mastery of key tools and concepts could give students a significant competitive advantage in the marketplace.

PSS 100   Six Sigma Yellow Belt   1 Cr Hr
Introduces the fundamentals of Six Sigma to individual process owners and operators who can then act as team members on Six Sigma projects. Not only do these Yellow Belts gain the skills necessary to identify, monitor and control profit-eating practices in their own processes, but they are also prepared to feed that information to Green Belts and Black Belts working on larger system projects.

PSS 101   Six Sigma Green Belt Methods   3 Cr Hrs
Helps adult learners understand Six Sigma concepts and be able to apply their knowledge to real problems. It also addresses the challenges of change management and data management.

Design Technology

Architectural Design Technology

CAT 101   CATIA Part Design & Sketcher   4 Cr Hrs
Covers the creation of solid parts without complex contours. Students are introduced to the part environment of CATIA V5 and learn how to work between sketcher and parts design workbenches to create individual parts.

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

EBS 120   Elementary Algebra   3 Cr Hrs
Introduction to variables, properties of real numbers, polynomials, solving linear and quadratic equations and graphing linear equations. This course does not count toward AS, AA, AGS or AAS degrees. *Prerequisite: Minimum grade of C in EBS 115 Pre-Algebra or satisfactory course placement assessment scores.*

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

ENG 101   Composition I   3 Cr Hrs
Improves the reading and writing skills of students. The emphasis is on fundamental principles of written English in structurally correct sentences, paragraphs and expository themes. Critical analysis of essays is used to aid in developing students' thinking, support of thesis and style. Students are introduced to the basic components of research by writing a documented essay in Modern Language Association (MLA) style. *Prerequisites: Satisfactory assessment score and/or minimum of 20 on ACT, or a grade of C or above and a passing grade on the post test in EBS 110 English are required for enrollment. High school students should have senior standing to enroll in ENG 101 Composition I.*

MCD 112   Industrial Materials & Processes   2 Cr Hrs
Includes instruction in materials, measurement, specifications, design principles, hardware and fasteners, vocabulary, machine fabrication, geometric dimensioning and tolerancing, Machinery's Handbook, surface finishes and an understanding of the fabrication practices used in manufacturing and construction.

MCD 113   Technical Drafting   3 Cr Hrs
Includes instruction in sketching and lettering, use and care of drafting equipment, geometric construction, multi-views, basics of isometrics, oblique projection and a study of drafting technology and American National Standards Institute (ANSI) standards. Students draw introductory drawings to scale.

MCD 114   Architectural Drafting & Design   3 Cr Hrs
Includes instruction in freehand drawing, basic residential planning, creative design, dimensioning, working details, light construction principles, building systems and blueprint development, learning construction terminology, applying ANSI Standards, local codes and drawing prints to industry standards. *Prerequisite: MCD 116 Introduction to CAD or instructor approval.*

MCD 115   Machine Drafting & Design   3 Cr Hrs
Includes instruction in creative design, geometric construction, auxiliaries, dimensioning, sectioning, isometrics, obliques, specifications and notes, manufacturing engineering techniques and Machinery's Handbook. Includes developing prints of working drawings, researching trade periodicals, learning machine terminology, using ANSI Standards and basic manufacturing blueprint development. *Prerequisites: MCD 113 Technical Drafting and MCD 121 Descriptive Geometry or instructor approval.*

MCD 116   Introduction to CAD   5 Cr Hrs
Introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the Microsoft Windows operating system that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions and text. Students use display and editing techniques to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD.

MCD 121   Descriptive Geometry   3 Cr Hrs
Students use computers to study descriptive geometry as it applies to drafting, and they determine true length of lines, true shapes of planes and apply descriptive geometry to real problems. Students also create flat pattern layouts to form three-dimensional shapes. *Prerequisite: MCD 116 Introduction to CAD or instructor approval.*

MCD 122   Architectural CAD   4 Cr Hrs
Students use computers for architectural detailing problems, working with foundation details, wall sections, roof details and stairway details. Using the computer, students draw a set of plans for a house of their own design. *Prerequisite: MCD 114 Architectural Drafting and Design or instructor approval.*

MCD 124   Advanced AutoCAD   4 Cr Hrs
Explores the three-dimensional construction and viewing capabilities of AutoCAD. Topics covered include a review of point coordinate entry system and the user coordinate system (UCS). Spherical and cylindrical coordinate entry, 3-D viewing and display techniques, construction of 3-D solid primitives, 2-D regions, solid-modeling composites and surfaces are also introduced. The use of multiple viewports for 3-D constructions and creating 2-D layouts are covered. Visual styles and rendering are also discussed. *Prerequisite: MCD 115 Machine Drafting and Design or instructor approval.*

MCD 132   Basic Chief Architect/Architectural Desktop   3 Cr Hrs
Students use computers to learn how to utilize three-dimensional software to design houses. This course provides instruction in how to use the software and draw walls, windows, doors, foundations and roofs. *Prerequisite: MCD 114 Architectural Drafting and Design or instructor approval.*

**MCD 134   Advanced Chief Architect/
                 Architectural Desktop   3 Cr Hrs**
Students use computers to learn how to utilize three-dimensional software to design houses. This course provides instruction in how to add interior furniture, terrains, elevations, working drawings, presentation drawings and how to use the camera functions. *Prerequisite: MCD 132 Basic Chief Architect or instructor approval.*

MCD 140   Drafting Technology Internship   4 Cr Hrs
Introduces students to the application and reinforcement of drafting and employability principles in an actual job setting. This internship acquaints students with realistic work situations and provides insights into a drafting job. Topics include appropriate work habits, acceptable job performance, application of drafting/CAD knowledge and skills, interpersonal relations and development of productivity. *Prerequisite: Instructor approval.*

MCD 205   Residential Drafting   3 Cr Hrs
Introduces architectural drawing skills necessary to produce a complete set of construction drawings given floor plan information. Topics include footing, foundation and floor plans; interior and exterior elevations; sections and details; window, door and finish schedules; site plans; and specifications.

MCD 206   Commercial Drafting and Design   3 Cr Hrs
Introduces commercial drawing skills necessary to produce construction drawings given floor plan information. Topics include structural steel detailing, reflected ceiling plans, rebar detailing and commercial construction drawings.

MTH 101   Intermediate Algebra   3 Cr Hrs
Simplifying algebraic expressions. Solving equations and word problems involving linear and quadratic polynomials, rational expressions, rational exponents and radicals. Graphing linear and quadratic functions. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement. *Prerequisites: Minimum grade of C in EBS 120 Elementary Algebra or satisfactory course placement assessment scores.*

Engineering Design Technology

CAT 101   CATIA Part Design & Sketcher   4 Cr Hrs
Covers the creation of solid parts without complex contours. Students are introduced to the parts environment of CATIA V5 and learn how to work between sketcher and parts design workbenches to create individual parts.

CAT 102   CATIA Drafting   4 Cr Hrs
Covers the creation of engineering drawings. Students are introduced to the drafting environment of CATIA V5 and learn how to create drawings from parts and products.

CAT 105   CATIA Assembly Design   4 Cr Hrs
Covers the use of multiple parts to create an assembly. It also covers the various analytical and navigation tools that are

available within an assembly. Students are introduced to the product environment of CATIA V5 and learn how to work with multiple parts between the Assembly Design, Digital Mock-Up (DMU) Space Analysis and DMU Navigator workbenches.

CAT 110   CATIA Wireframe & Surfaces   4 Cr Hrs
Extension of the parts environment covers the use of wireframe and surface geometry to create complex contours. Cores concentrate on the tools available and how to integrate this geometry back into a solid part.

CAT 115   CATIA Prismatic Machining   4 Cr Hrs
This course is the beginning manufacturing course. This course covers the machining operations involved in 3-axis milling. Students will be introduced to the process environment of CATIA V5 and learn how to work between the process, part and product environments.

CAT 120   CATIA ENOVIA LCA   3 Cr Hrs
Provides students with a thorough background in the Enterprise Innovation via Life Cycle Applications. Students learn to utilize the ENOVIA system to manage a product from initial conceptual drawings, through 3-D modeling, to retirement of the product.

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CWG 110   Welding Applications   4 Cr Hrs
Provides instruction in the major welding and cutting operations. Students develop knowledge and skills to identify and safely operate a variety of welding and cutting machines/equipment including arc welding, MIG welding, TIG welding, oxy-acetylene welding and cutting and shearing operations.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

MCD 110   Principles of Tool Design   2 Cr Hrs
Provides an understanding of the general methods of tool design with emphasis on jigs and fixtures. Instruction and projects enable students to develop ideas into practical specifications for modern manufacturing methods.

MCD 112   Industrial Materials & Processes   2 Cr Hrs
Includes instruction in materials, measurement, specifications, design principles, hardware and fasteners, vocabulary, machine fabrication, geometric dimensioning and tolerancing, Machinery's Handbook, surface finishes and an understanding of the fabrication practices used in manufacturing and construction.

MCD 113   Technical Drafting   3 Cr Hrs
Includes instruction in sketching and lettering, use and care of drafting equipment, geometric construction, multi-views, basics of isometrics, oblique projection and a study of drafting technology and ANSI Standards. Students draw introductory drawings to scale.

MCD 114   Architectural Drafting & Design   3 Cr Hrs
Includes instruction in freehand drawing, basic residential planning, creative design, dimensioning, working details, light construction principles, building systems and blueprint development, learning construction terminology, applying ANSI Standards, local codes and drawing prints to industry standards. *Prerequisite: MCD 116 Introduction to CAD or instructor approval.*

MCD 115   Machine Drafting & Design   3 Cr Hrs
Includes instruction in creative design, geometric construction, auxiliaries, dimensioning, sectioning, isometrics, obliques, specifications and notes, manufacturing engineering techniques and Machinery's Handbook. Includes developing prints of working drawings, researching trade periodicals, learning machine terminology, using ANSI Standards and basic manufacturing blueprint development. *Prerequisites: MCD 113 Technical Drafting and MCD 121 Descriptive Geometry or instructor approval.*

MCD 116   Introduction to CAD   5 Cr Hrs
Introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the Microsoft Windows operating system that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions and text. Students use display and editing techniques to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD.

MCD 121   Descriptive Geometry   3 Cr Hrs
Students use computers to study descriptive geometry as it applies to drafting, and they determine true length of lines, true shapes of planes and apply descriptive geometry to real problems. Students also create flat pattern layouts for form three-dimensional shapes. *Prerequisite: MCD 116 Introduction to CAD or instructor approval.*

MCD 124   Advanced AutoCAD   4 Cr Hrs
Explores the three-dimensional construction and viewing capabilities of AutoCAD. Topics covered include a review of point coordinate entry and the user coordinate system (UCS). Spherical and cylindrical coordinate entry, 3-D viewing and display techniques, construction of 3-D solid primitives, 2-D regions, solid-modeling composites and surfaces are also introduced. The use of multiple viewports for 3-D constructions and creating 2-D layouts are covered. Visual styles and rendering are also discussed. *Prerequisite: MCD 115 Machine Drafting and Design or instructor approval.*

MCD 140   Drafting Technology Internship   4 Cr Hrs
Introduces students to the application and reinforcement of drafting and employability principles in an actual job setting. This internship acquaints students with realistic work situations and provides insights into a drafting job. Topics

include appropriate work habits, acceptable job performance, application of drafting/CAD knowledge and skills, interpersonal relations and development of productivity. *Prerequisite: Instructor approval.*

MCD 145   Electrical Design & Fabrication   3 Cr Hrs
Uses industry-based software to design electronics circuits. Students study electronic engineering drawings required for various electronics circuits. Printed circuit board design and fabrication are covered.

MCD 201   Geometric Dimensioning & Tolerance   3 Cr Hrs
An in-depth study develops a basic working knowledge in geometric dimensioning and tolerancing (GD&T). It is delivered per the American Society of Mechanical Engineers (ASME) Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel need to know to work in an industrial environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color-animated graphics, video clips and plastic models that allow students to clearly understand the concepts.

MCD 204   Civil Drafting   3 Cr Hrs
Emphasizes drawing assignments related to the most common mapping and civil site planning design problems. Topics include loan and boundary surveys, as-builts, plan and profile drawings, cross-sections, earth-work determination and grade determination.

MMG 142   Manual Lathes   6 Cr Hrs
Includes theory and laboratory instruction about basic lathe operations, safety and use and care of hand and machine tools. Addresses basic lathe operations such as turning, facing, drilling, tapping and tool grinding.

MMG 143   Manual Mills   6 Cr Hrs
Includes both theory and laboratory instruction of basic manual mill operations, safety, use and care of hand tools and machine operation and set-ups.

MMG 144   CNC Mills   6 Cr Hrs
Introduces the actual machine set-up utilizing various clamping vises and fixtures along with computer numerical control (CNC) machine operation methods and techniques necessary to produce a variety of discrete parts on the CNC mills.

MMG 147   Principles of Machining I   2 Cr Hrs
Introduces students to basic metal-working concepts, including metal-cutting fundamentals, identification and use of hand and cutting tools, various machine tool operations and the use and care of precision measuring instruments. Course is a preliminary to matching laboratory courses and addresses the safe use of machine and hand tools.

MTH 101   Intermediate Algebra   3 Cr Hrs
Covers simplifying algebraic expressions; solving equations and word problems involving linear and quadratic polynomials, rational expressions, rational exponents and radicals; and graphing linear and quadratic functions. This course requires that students furnish their own TI-83 or TI-83 PLUS graphing calculator and purchase specific online course software. *Prerequisites: Minimum grade of C in EBS 115 Pre-Algebra or satisfactory course placement assessment scores.*

This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.

Interior Design

INT 100   Accessories   1 Cr Hr
An introduction to decorative accessories that focuses on the components of display for effective visual presentation. This course utilizes the principles and techniques that are common to display work in interiors and various businesses. The main emphasis is on design and color principals, hangers and materials used for arrangement and display and safety issues.

INT 101   Interior Design Fundamentals   2 Cr Hrs
An introduction to the fundamentals of design through the exploration of design elements and principles. Topics include fundamentals of traffic flow patterns, color rendering, space planning and problem-solving skills that are used in interior design. This course includes research, creating illustration boards and honing presentation skills.

INT 105   Blueprint Reading for Interior Design   2 Cr Hrs
An introduction to blueprints for interior construction and service systems. Students learn basic mechanical drawings, architectural drawings and symbol and abbreviation identification used in blueprints. By using an architectural scale, students learn to plot floor plans. Construction documents, time management and communication with architects and contractors are included in this course.

INT 110   Color Theory   2 Cr Hrs
Introduces the use of color for interior design. Emphasis is on color theory, psychology of color and how it affects the brain and moods and application of color in interior environments and lighting conditions. Included is the vocabulary of color, color temperatures, the principles of the color wheel and how to use it. With the use of paint, values and tones are mastered.

INT 120   Materials & Resources I   3 Cr Hrs
By the end of the semester, students know various soft materials and treatments necessary for designing interior spaces, the functions of each and their appropriate uses. Students should feel confident in researching design products. Each student starts a reference library of local and national vendors.

INT 125   Materials & Resources II   2 Cr Hrs
By the end of this semester, students know various hard treatments necessary for designing interior spaces, the functions of each and their appropriate uses. Students should feel confident in researching design products. Each student starts a reference library of local and national vendors.

INT 130   Painted & Faux Finishes I   3 Cr Hrs
An introduction to the techniques used to produce painted finishes on furniture and interior walls. Topics include the history of faux finishing, color mixing, technology of paint, materials used for creating faux finishes and specific issues related to wall glazing, ragging, sponging, strie, wood graining, textured granites, stones and other techniques.

INT 135   Painted & Faux Finishes II   3 Cr Hrs
Helps students increase their knowledge of painted and faux finishes. Various types of paints, glazes, brushes and other faux tools are utilized in this course. It also introduces students to basic business practices for painted and faux finishing,

bookkeeping and pricing for techniques. Upon completion of the course, students are able to produce a wide variety of finishes such as marble, wood graining and semiprecious stones through paint applications. Venetian plasters and raised plaster techniques are introduced in this section. Students are also trained in interior design principles and have an exposure to business practices of faux and painted finishing.

INT 145   History of Furniture & Architecture I   3 Cr Hrs
Provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces and accessories from Egyptian through Medieval periods. Students learn chronologies, key terms, designer contributions and ruler influence on furniture and architectural elements in a time-line manner. Through hands-on experience with furniture and actually creating pieces of art-styled furnishings, they comprehend what is involved in furniture making.

INT 150   History of Furniture & Architecture II   3 Cr Hrs
Provides students with the historical foundation of architecture and furniture, furniture styles, accent pieces and accessories from Renaissance through Post Modern periods. Students learn chronologies, key terms, designer contributions and ruler influence on furniture and architectural elements in a time-line manner. Through hands-on experience with furniture and actually creating pieces of art-styled furnishings, they comprehend what is involved in furniture making.

INT 155   Lighting Technologies   3 Cr Hrs
An introduction to the basics of lighting technologies used in interior design, color, lighting styles and lighting fixtures. Students learn to read lamp indicators, calculate lumens and foot-candles and proper heights and usage for various lighting techniques. An understanding of light analysis, residential and commercial lighting, lighting design, lighting applications and requirements for various types of lighting are studied. Developments of lighting and electrical layouts on floor plans are inclusive in this course.

INT 160   Design Studio I   3 Cr Hrs
Provides long- and short-term projects that address real-life design situations. It develops competencies in solving design problems and teamwork. Technical and conceptual concerns, color theory, lighting technology, scale, materials selection and creative design articulation through presentation and illustrations are critical elements for this class. Deployment of invoicing techniques, material selection and working with a budget are emphasized in this course.

INT 165   Design Studio II   2 Cr Hrs
Provides long- and short-term projects that address real-life design situations. It develops competencies in solving design problems and teamwork. Technical and conceptual concerns, color theory, lighting technology, scale, materials selection and creative design articulation through presentation and illustrations are critical elements for this class. Development of invoicing techniques, material selection and working with a budget are emphasized in the course. Students work with real-time case studies. (Students may be invited to participate in events such as The Symphony Show House Design, judge in the Wichita Area Building Associations' Parade of Homes or shadow designers with a project.)

INT 170   Business Practices & Portfolio Development   3 Cr Hrs
Covers client contracts, presentation skills, resource development,

business and legal forms and business management and laws pertaining to interior design. A professional personal portfolio is refined in this class for employment purposes. A professional résumé is included as part of the portfolio package. Students obtain background knowledge necessary for successful business practices for interior design.

INT 175   Seminars for Interior Design   2 Cr Hrs
Helps students increase their knowledge concerning professional development though resources and artistic exploration. This course is held outside the classroom in real-world settings. Tours of museums, building of architectural interest and local vendors and showrooms are the target of this course. Students develop networking skills and create a resource library for future use in the field of interior design.

INT 185   Mentorship for Interior Design   3 Cr Hrs
This course is designed to help the student increase their knowledge in an in-depth application and reinforcement of interiors and employability principles in an actual job setting. Mentorship allows the student to get involved with on the job applications that require full time commitment. The student will be evaluated by the use of written performance evaluations. Application of interior principles, problem solving, adaptability to job setting, uses of personal skills, development of constructive work habits and ethics, practice confidentially, development of productively and job performance through practice.

INT 190   Drafting for Interiors   2 Cr Hrs
An introduction to drafting for interior construction and service systems. Students learn basic mechanical drawings, architectural drawings and symbol and abbreviation identifications used in drafting blueprints. By using an architectural scale, students learn to plot floor plans. Construction documents, time management and communication with architects and contractors are included in this course.

INT 196   Interior Design Codes & Standards   3 Cr Hrs
Designed to focus on the most current and widely used building, fire, electrical and plumbing codes as required by the industry. Included are working with code officials, documenting large and small projects, single-family homes, historical and existing buildings and new construction.

INT 201   Floral Design   4 Cr Hrs
An introduction to floral arrangements that focuses on the components of display for effective visual presentation. This course utilizes the principles and techniques that are common to display work in interiors and various businesses. The main emphasis is on design and color principals, tools and materials used for floral arrangement and display and safety issues.

INT 215   Kitchen & Bath Design   3 Cr Hrs
Helps students develop the special considerations necessary to design and plan kitchens and baths. Topics include the study of the basic principles of kitchen and bath design, planning, proper function and layout, accurate measuring techniques, specification documentation, theme and historical design.

INT 225   Advanced Kitchen & Bath Design   3 Cr Hrs
Helps students develop advanced knowledge in the design of kitchens and baths. The application of the National Kitchen and Bath Association's Guidelines of Planning Standards and Safety Criteria for residential kitchens and bathrooms,

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including universal design concepts, are covered. Topics include the use of building codes, safety criteria, universal and accessibility criteria and ergonomics.

**INT 235   Computer Technologies
for Kitchen & Bath Design   3 Cr Hrs**
Helps students develop advanced skills necessary to design and present kitchen and bath solutions through the use of current industry software applications. Project design is done completely on computer.

INT 245   Internship for Kitchen & Bath Design   3 Cr Hrs
Helps students develop in-depth application and reinforcement of kitchen and bath employability principles through working in an approved industry environment. This internship allows students to become involved in intensive on-the-job kitchen and bath applications that require full-time concentration, practice and follow through. The Kitchen & Bath Design internship is implemented through written performance evaluations.

MCD 116   Introduction to CAD   5 Cr Hrs
Introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the Microsoft Windows operating system that enables the equipment to function as a unit. The course shows how to use AutoCAD to set-up drawings and construct lines, circles, arcs, other shapes, geometric constructions and text. Students use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD.

MCD 132   Basic Chief Architecture/Architectural Desktop   3 Cr Hrs
Students use computers to learn how to utilize three-dimensional software to design houses. This course provides instruction in how to use the software and draw walls, windows, doors, foundations and roofs. *Prerequisite: MCD 114 Architectural Drafting and Design or instructor approval.*

General Education

ACC 105   Fundamentals of Accounting   3 Cr Hrs
Designed for students who want a working knowledge of accounting, but not to the extent as a person working primarily in the accounting field. Although the basic accounting principles are learned and applied, the course, in comparison to Principles of Accounting I, covers a smaller amount of material at a somewhat slower pace. Recommended for students with no previous accounting background.

ACC 120   Accounting with Computers   3 Cr Hrs
Students generate transactions and complete accounting procedures of a sole proprietorship, a partnership and a corporation using computerized accounting software. Students review software features for various types of businesses.

ACC 130   Managerial Accounting   3 Cr Hrs
Studies management tools for business decision making, including the evaluation of financial condition and performance of business. Emphasis is given to the process of formulating and utilizing sound accounting data to evaluate alternatives involved in managerial decision-making necessary for planning, executing and controlling a business enterprise. *Prerequisite: Minimum grade of C in ACC 170 Principles of Accounting II.*

ACC 152   Payroll Accounting   3 Cr Hrs
Provides an understanding of the laws that affect a company's payroll structure and practical application skills in maintaining payroll records. Topics include payroll tax laws, payroll tax forms, payroll and personnel records, computing wages and salaries, taxes affecting employees and employers and analyzing and journalizing payroll transactions. Provides first-hand experience in calculating payroll, completing payroll taxes and preparing records and reports. Topics include payroll tax entries, preparing payroll registers and maintaining employees' earnings records using computerized software.

ACC 160   Principles of Accounting I   3 Cr Hrs
Helps students develop a basic understanding of accounting theory, concepts and procedures. It provides a foundation for further study for students seeking a career in accounting or business administration or for students entering the occupational field.

ACC 170   Principles of Accounting II   3 Cr Hrs
A continuation of ACC 160 Principles of Accounting I. Studies corporations including organization and operations; stockholders' equity, earnings and dividends; long-term assets and liabilities, investments, income tax and their effort on business decisions; and assessing a company's financial performance.

ALH 101   Medical Terminology   3 Cr Hrs
Presents basic principles of medical word-building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject.

ALH 105   First Aid & CPR   3 Cr Hrs
Covers cause, prevention and first aid care of life-threatening

respiratory and cardiac emergencies and non-life threatening emergencies for infant, child and adults as outlined by the American Red Cross.

ALH 110   Principles of Nutrition   3 Cr Hrs
Studies the health of the individual as related to food and its assimilation in the human body. Principles of normal nutrition, food values and adequate nutrient allowances for growth and maintenance is examined.

ALH 115   Pharmacology   3 Cr Hrs
This course will provide the basic pharmacology principles with an emphasis on a broad discussion of the primary medications in each of the pharmaceutical classification categories. This course is designed to meet the pharmacology needs of students enrolled in pre-allied health majors and would be beneficial for others in the allied health field who desire a greater understanding or pharmacological principles related to diseases, effects of drugs on different systems of the body, interaction of drugs, side effects, contraindications and effectiveness in relation to dosages.

ALH 130   Emergency Preparedness for Health   1 Cr Hrs
**   Professionals**
This course is designed to provide health care professionals with an orientation for their possible future roles in disaster response and the importance of staying within the scope of practice of the profession. Students will be prepared to meet the expectations of their employers, to volunteer effectively, and to be confident and safe responders.

ALH 135   Spanish Language for Health Care Providers   1 Cr Hrs
This course is designed to provide health care providers with basic and practical knowledge of the Spanish language as applied in the medical field. Students will be prepared to facilitate medical care delivery to their Spanish speaking clients. Emphasis will be placed on ability to communicate and develop a vocabulary according to the needs of each participant.

ART 100   Art Appreciation   3 Cr Hrs
Develops a personal appreciation of art. By combining a study of concepts and artists' works, students improve their judgment and ability to understand art critically.

BAF 103   Finance   3 Cr Hrs
Provides an introduction to financial markets, institutions and management in contemporary society. Emphasis is placed on developing an understanding of the financial markets in which funds are traded, the financial institutions participating in facilitating the trade of such funds and the financial principles and concepts behind sound financial management. Topics include financial systems of the United States, business financial management and financing other sectors of the economy.

BAF 105   Introduction to US Financial System   3 Cr Hrs
Emphasizes the relevance of monetary instruments, intermediaries and the central banks as they impact local, state, national and international economics. Topics include history and evolution of financial institutions; monetary instruments and flow; and central banking, operation and policies.

BIO 100   Biology Review   1 Cr Hr
Introduces materials covered in BIO 110 Principles of Biology. Recommended for students planning to take BIO 150 Human

Anatomy & Physiology or BIO 160 Microbiology who have not had a life science course within the past five years, or students wishing to prepare for BIO 110 Principles of Biology.

BIO 110   Principles of Biology   5 Cr Hrs
An introduction to the biological concepts included in the General Education Biology Core Competencies. This includes understanding the nature of science, levels of organization, bioenergetics, reproduction and inheritance and the mechanisms of change. Laboratory stresses the process of scientific invesTIGation and observation of biological processes.

BIO 150   Anatomy & Physiology   5 Cr Hrs
A detailed study of the structure and function of the human body. Laboratory work includes tissue examination, basic physiological experiments and structural identification of all organ systems.

BIO 160   Microbiology   5 Cr Hrs
An introduction to microorganisms and their morphology, physiology, genetics and distribution. Emphasis is placed on the relationship of microorganisms to disease and the human immune responses. Techniques involving staining, culturing, identifying and biochemistry are considered in laboratory. *Prerequisites: Must complete one of the following: BIO 110 Principles of Biology, BIO 100 Biology Review or successful completion of a life science laboratory class within the past five years. Suggested Prerequisite: CHM 110 General Chemistry.*

BUS 104   Introduction to Business   3 Cr Hrs
Studies various types of business organizations and the relationships of business to government and management to labor. Management's perspective of production, marketing, personnel, finance and transportation is a constant consideration.

BUS 106   Office Procedures   3 Cr Hrs
Prepares students to handle situations in an office setting. Students learn office management skills including communication, diversity and organization skills.

BUS 121   Business Communications   3 Cr Hrs
Business Communications is designed to cover the communication skills that are necessary in a high-technology global business environment. These skills include competencies in written and oral communication; an awareness of international, legal, and ethical issues; the ability to work collaboratively on group projects; and proficiency in using microcomputers.

BUS 125   Business Law   3 Cr Hrs
A basic introductory law course covering the legal and social environment within which business operates, including the structure, processes and procedures of the American legal system. A substantial portion of the course is devoted to contracts.

BUS 130   Personal Finance   3 Cr Hrs
Designed for non-business majors as well as for business majors. Course concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

BUS 140   Principles of Marketing   3 Cr Hrs
Production and marketing of goods and services are the essence of economic life in any society. All organizations perform these two basic functions to satisfy their commitments to society, their customers and their owners. Marketing examines the problems of transferring title and moving goods from producer to consumer, buying, selling, storing, transporting, standardizing, financing, risk-bearing and supplying market information. The free enterprise and the government's contribution, retailing and international marketing are discussed at length.

BUS 160   Human Relations   3 Cr Hrs
Designed to help employees and supervisors gain human relations skills needed for success at their work sites. The case method is used to analyze situations in which actual job relations are presented.

BUS 200   Principles of Management   3 Cr Hrs
Explores the basic management functions of planning, controlling organizing and directing an organization. The basic management theories, functions and aspects of various types of business are studied.

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy and keyboarding skills and meets the needs of students in associate degree programs and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Introduces students to the fundamental concepts and operations necessary to use computers. Emphasis is placed on basic functions and familiarity with computer use. Topics include computer terminology, introduction to the Windows environment, networking, word processing, spreadsheets and databases. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CED 120   Advanced Computer Applications   3 Cr Hrs
Enhances students' computer literacy and meets the needs of students in associate degree and/or certificate programs. Students learn from hands-on experiences, advanced skills in word processing, spreadsheet applications, database management and graphical presentations in the Windows environment. *Prerequisite: CED 115 Computer Applications or acceptable prior experience with Microsoft Word, Excel, Access and PowerPoint.*

CHM 100   Chemistry Review   1 Cr Hr
Introduces basic concepts covered in CHM 125 Chemistry I. It is recommended for students who want to enroll in Chemistry I or a higher-level chemistry course the following semester. It is not recommended for those taking CHM 110 General Chemistry.

CHM 110   General Chemistry   5 Cr Hrs
An introduction to chemistry that includes the study of matter, atoms, molecules, chemical arithmetic, chemical reactions, gas laws, acids and bases, organic chemistry and laboratory experimentation. *Prerequisite: EBS 120 Elementary Algebra or a higher level math course with a grade of C or better, completed within the past five years, or a math ACT score of 18 or better or an equivalent assessment score.*

CHM 125   Chemistry I   5 Cr Hrs
An introduction to inorganic chemistry with emphasis on atomic structure, molecular bonding and structure, the periodic table, kinetic theory, changes of state, solutions and concentrations, chemical reactions and oxidation reduction and fundamental organic chemistry. *Prerequisites: CHM 110 General Chemistry or high school chemistry within the last five years and high school advanced algebra or MTH 101 Intermediate Algebra with a C or better within the last five years. Can take MTH 112 College Algebra concurrently.*

CHM 135   Chemistry II   5 Cr Hrs
A continuation of CHM 125 Chemistry I. A presentation of the properties of solutions, chemical kinetics, equilibrium, acid-base theory, thermodynamics, coordination chemistry, organic and biochemistry and electrochemistry. Includes laboratory experimentation.

EBS 100   Reading Foundations   3 Cr Hrs
This course will enable the student to develop his/her reading skills by practicing the essential elements of good reading comprehension. The course will be delivered by two methods: instructor-led and independent study.

EBS 101   College Reading Skills   3 Cr Hrs
Develops students' reading skills necessary for successful completion of postsecondary coursework. Instruction is based on application of research-based reading strategies to authentic college texts. It is required that any student scoring in the range of 0–60 on the COMPASS reading assessment enroll in this course. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 102   Sentence Structure   1 Cr Hr
Enables students to construct complete simple, compound and complex sentences by applying grammar concepts learned.

EBS 103   Paragraph Writing   1 Cr Hr
Enables students to write a focused, organized, supported paragraph without fragment, run-on or comma splice errors.

EBS 105   Becoming a Master Student   3 Cr Hrs
Students learn effective study skills that enable them to be academically successful. Students learn how to make application of these skills in a course of study. The course covers time management, goal setting, listening, note taking, test strategies and online learning. It is recommended that any student who has a GPA of 2 or lower upon initial enrollment or after their first semester of college coursework enroll in this class. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 110   English   3 Cr Hrs
Designed to equip students for success in the writing required during academic endeavors. Review of grammar is individualized and self-paced. Writing assignments include a number of paragraphs and major essays. To demonstrate readiness for and to be allowed to enroll in ENG 101 Composition I, students must pass this course with a grade of C or above and pass the final exam. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 113   Basic Arithmetic   3 Cr Hrs
Provides students with basic arithmetic computational skills including basic decimals, fractions, ratios and proportions and percents. Computation by scientific calculator is introduced, but emphasis is placed on computation by hand. This course

does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.

EBS 114   Pre-Algebra with Review   5 Cr Hrs
Arithmetic with fractions, decimals and percents. Introduction to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 115   Pre-Algebra   3 Cr Hrs
Arithmetic with fractions, decimals and percents. Introduction to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EBS 120   Elementary Algebra   3 Cr Hrs
Introduction to variables, properties of real numbers, polynomials, solving linear and quadratic equations and graphing linear equations. This course does not count toward AS, AA, AGS or AAS degrees. *Prerequisite: Minimum grade of C in EBS 115 Pre-Algebra or satisfactory course placement assessment scores.*

ECO 105   Principles of Macroeconomics   3 Cr Hrs
Explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed.

ECO 110   Principles of Microeconomics   3 Cr Hrs
Attention is given to the methods of producing the goods and services that the economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms, business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform.

ENG 101   Composition I   3 Cr Hrs
Improves the reading and writing skills of students. Emphasis is on fundamental principles of written English in structurally correct sentences, paragraphs and expository themes. Critical analysis of essays is used to aid in developing students' thinking, support of thesis and style. Students are introduced to the basic components of research by writing a documented essay in Modern Language Association (MLA) style. *Prerequisites: Satisfactory assessment score and/or minimum of 20 on ACT or a grade of C or above and a passing grade on the post-test in EBS 110 English are required for enrollment. High school students should have senior standing to enroll in ENG 101 Composition I.*

ENG 120   Composition II   3 Cr Hrs
Through a study of poetry, short story, drama and essays as literary forms, this course furthers students' writing skills. This course also improves research techniques through writing an in-depth research essay in Modern Language Association (MLA) style. It emphasizes accuracy and fluency in expressing sound ideas in class discussions, assignments and essays. *Prerequisites: Completion of ENG 101 Composition I with a grade of C or above. High school students should have senior standing to enroll in ENG 120.*

ENT 110   Introduction to Entrepreneurship   3 Cr Hrs
The purpose of this course is to familiarize students in the world of small business. Students will be introduced to the concepts needed to seek out business opportunities as well as the tools needed to evaluate successful ventures. Considerable attention will be given to the concepts of planning, financing and marketing new businesses.

ENT 115   Entrepreneurship II   3 Cr Hrs
The marketplace has changed dramatically over the last 20 years. To compete and grow, small businesses must do more than just give lip service to putting the customer at the center of the business. Students learn the different paths to business ownership, how to effectively market new products, management strategies for the 21st century and how to plan financially for a business.

MGT 106   Introduction to Human Resources   3 Cr Hrs
Comprehensive view of human resources within an organization. Students examine the human resource functions of strategic human resource management, workforce planning, recruitment and selection, human resource development (training and development), total rewards (compensation and benefits), employee and union relations and risk management (health, safety and security). Emphasis is on understanding how human resource management contributes to an organization's strategic direction and enhances the organization's competitiveness.

MTH 101   Intermediate Algebra   3 Cr Hrs
Simplifying algebraic expressions. Solving equations and word problems involving linear and quadratic polynomials, rational expressions, rational exponents and radicals. Graphing linear and quadratic functions. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement. *Prerequisites: Minimum grade of C in EBS 120 Elementary Algebra or satisfactory course placement assessment scores.*

MTH 102   Intermediate Algebra With Review   5 Cr Hrs
Covers the same topics as EBS 120 Elementary Algebra and MTH 101 Intermediate Algebra. Students meet twice a week instead of once a week. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement. *Prerequisites: Minimum grade of C in EBS 115 Pre-Algebra or satisfactory course placement assessment scores.*

MTH 112   College Algebra   3 Cr Hrs
An introduction of algebraic functions and some transcendental functions with application in business and life, natural and social sciences. Topics include solving equations, zeros, rational functions, matrices, exponentials and logarithms and systems. Additional topics are included as time permits. Students must furnish their own TI-83 or TI-83 PLUS graphing calculators. *Prerequisites: A minimum grade of C in MTH 101 Intermediate Algebra or satisfactory course placement assessment or 21 ACT math score.*

MTH 113   Trigonometry   3 Cr Hrs
Trigonometric functions using the unit circle and right angle trigonometry, graphing applications, analytic trigonometry, vectors, trigonometric complex number applications, parametric and polar equations. Students must furnish their own TI-83 or TI-83PLUS graphing calculators. *Prerequisites: Minimum grade of C in MTH 111 College Algebra with Review or MTH 112 College Algebra or 23 ACT math score.*

MTH 115   Pre-Calculus   5 Cr Hrs
An introduction to function theory, algebraic and trigonometric functions and selected topics such as matrices, probability and statistics. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. *Prerequisites: Minimum grade of C in MTH 111 College Algebra with Review or MTH 112 College Algebra or 23 ACT math score.*

MTH 120   Elementary Statistics   3 Cr Hrs
An introduction to frequency distributions, measures of central tendency, sampling distributions, T-test and chi-square test, hypothesis testing and correlation coefficients. This course requires that students furnish their own TI-83 or TI-83 PLUS graphing calculator. *Prerequisite: Minimum grade of C in MTH 112 College Algebra.*

MTH 125   Calculus I   5 Cr Hrs
Differentiation and integration of the algebraic, logarithmic and exponential functions. Applications to physical, social, life and business sciences. Students must furnish their own TI-83 or TI-84 Series graphing calculators. *Prerequisites: Minimum grade of a C in MTH 113 Trigonometry, or a C in MTH 112 College Algebra with recent trigonometry in high school or satisfactory course placement assessment or 25 ACT math score.*

MTH 150   Calculus II   5 Cr Hrs
An extension of MTH 125 Calculus I with topics to include advanced integration techniques, sequences and series, length, area and volumes. Application includes business and life, natural and social sciences. Students must furnish their own TI-83 or TI-84 PLUS graphing calculators. *Prerequisites: A minimum grade of a C in MTH 125 Calculus I.*

PED 110   Lifetime Fitness   1 Cr Hr
Exposes students to facts about and experiences in dealing with motor, physical, physiological, psychological and nutritional aspects of the human being and the responsibility to maintain fitness during a life span.

PHL 110   Ethics   3 Cr Hrs
A practical approach to recognizing, understanding and solving ethical problems confronting individuals in today's society. Basic concepts of applied ethical theories in moral philosophy and reasoning are examined using critical thinking and responsible decision-making skills.

PHS 110   Physical Science   5 Cr Hrs
A non-technical course intended for students who are majoring in fields other than science. The application of scientific knowledge to daily life activities is emphasized by examining the fundamental principles in physics, chemistry, geology and astronomy utilizing the scientific method.

PHS 120   General Physics I   5 Cr Hrs
Topics include mechanics — linear motion, rotational motion, force, work, energy, momentum and conservation principles; heat — temperature, ideal gas, eating as a form of energy, first law of thermodynamics, second law of thermodynamics and entropy; and wave motion — simple harmonic motion, elasticity and the wave equation. This class is designed for students who need five hours of physics without calculus. This class is taught in the fall. *Prerequisites: College Algebra, high school trigonometry or college trigonometry and basic computer skills.*

PHS 125   General Physics II   5 Cr Hrs
A continuation of PHS 125 General Physics I. Topics include electricity and magnetism — electric potential, current electric

power, magnetic field and induction; optics — nature of light and wave optics; and modern physics — special relativity, atomic structure, quantum mechanics and radioactivity. *Prerequisite: PHY 125 General Physics I.*

PHS 130   Engineering Physics I   5 Cr Hrs
Designed for students needing five hours of physics with calculus applications. Topics include: mechanics — linear motion, rotational motion, force, work, energy and momentum and conservation principles; heat — temperature, ideal gas, thermodynamic systems, heat as a form of energy, first law of energy, first law of thermodynamics, second law of thermodynamics and entropy; and wave motion — simple harmonic motion, elasticity and the wave equation.

PHS 135   Engineering Physics II   5 Cr Hrs
A continuation of PHS 125 General Physics I. Topics include electricity and magnetism — electric potential, current electric power, magnetic field and induction; optics — nature of light and wave optics; and modern physics — special relativity, atomic structure, quantum mechanics and radioactivity. *Prerequisite: PHY 125 General Physics I.*

PSY 101   General Psychology   3 Cr Hrs
A general introduction to the scientific study of human behavior as it applies to daily living. Course includes history, basic theories and biological bases of behavior, development, cognitive processes, individual awareness, motivation, emotion, personal adjustment and social psychology.

PSY 120   Developmental Psychology   3 Cr Hrs
A study of individual development from conception through death. This includes the general areas of biological, physical, cognitive, social, emotional and personality development at each stage of life. *Prerequisite: PSY 101 General Psychology.*

SOC 101   Principles of Sociology   3 Cr Hrs
An introductory study to acquaint students with the influence of human social behavior. Sociology studies the processes and patterns of individuals and group interaction by acquainting students with the development, characteristics and functioning of human groups, the relationships between groups and group influences on individual behavior. It includes the study of how social relationships are created, maintained and changed.

SPH 101   Public Speaking   3 Cr Hrs
Covers fundamental basics to all good private and public speaking experiences and elements in voice production and improvement, bodily movement, confidence, poise and understanding of all types of public speeches. Required of all transfer curricula.

SPH 111   Interpersonal Communication   3 Cr Hrs
Improves individual communication skills. By understanding the elements of effective communication, students are able to create environments that bring out the best in themselves and others. In addition, students learn how to better turn ideas and feelings into words, how to listen more effectively, respond more appropriately to what others have said and, most important of all, how to maintain and develop good interpersonal relationships with their families, their peers and fellow workers. Emphasis is placed on small-group activities, interviewing skills and verbal and non-verbal communication.

WICHITA AREA TECHNICAL COLLEGE

Health Sciences

Activity Director / Social Services Designee

GRA 116   Activity Director/Social Services Designee   3 Cr Hrs
Activity Director: Teaches certified nurse aides (CNA) in long-term care settings how to plan and implement a comprehensive activity program based on the physical and psychosocial needs of residents.

Allied Health

ALH 105   First Aid & CPR   3 Cr Hrs
Covers cause, prevention and first aid care of life-threatening respiratory and cardiac emergencies and non-life-threatening emergencies for infant, child and adults as outlined by the American Red Cross.

Certified Medication Aide

MDU 010   Medication Aide Update   1 Cr Hr
Provides the continuing education required every two years by the Kansas Department of Health and Environment for renewal of the medication aide certificate. *Prerequisites: GRA 101 Certified Nurse Aide and GRA 119 Medication Aide.*

GRA 119   Medication Aide   5 Cr Hrs
Focuses on the knowledge and skills needed for safe medication administration in long–term care facilities. Graduates are eligible to take the Kansas certification examination to become certified medication aides. *Prerequisite: GRA 101 Certified Nurse Aide or Kansas Certified Nurse Aide certification.*

Certified Nurse Aide

CNU 010   Certified Nurse Aide Update   1 Cr Hr
Provides the continuing education required every two years by the Kansas Department of Health and Environment (KDHE) for renewal of the certified nurse aide (CNA) certificate when CNA is not gainfully employed. *Prerequisite: GRA 101 Certified Nurse Aide.*

GRA 101   Certified Nurse Aide   5 Cr Hrs
Prepares students to be caregivers in nursing homes while working under the supervision of licensed nurses. Includes classroom instruction, laboratory and clinical experience. Program meets Kansas State Department of Health and Environment guidelines. Graduates may take the state examination to become a certified nurse aide.

Dental Assistant

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

DAS 102   Fundamentals in Dental Assisting I   3 Cr Hrs
Introduces the profession of dental assisting, which includes educational requirements, functions and credentials of dental health team members, ethics and legal aspects of dentistry, dental terminology, basic dental business office skills and communication skills. *Prerequisite: Admission to Dental Assistant program.*

DAS 107   Anatomy for Dental Assistants   1 Cr Hr
Covers basic structures and functions of human body systems with emphasis on the head and neck. The primary and permanent teeth are studied in detail with respect to macroscopic anatomy, development, eruption, positional and occlusal relationships. Includes tooth drawing and placement of restorations in mannequin teeth. *Prerequisite: Admission to Dental Assistant program.*

DAS 108   Dental Health Education   2 Cr Hrs
Covers basic study of nutrition and diet and their relationship to oral health with emphasis on dental health education, the philosophy of preventive dentistry, personal oral hygiene and dental disease. Basic skills of oral hygiene instruction, fluoride treatments and coronal polishing of the teeth are implemented. *Prerequisites: Admission to Dental Assistant program and concurrent registration in DAS 112 Dental Materials I and DAS 115 Chairside Assisting I.*

DAS 111   Fundamentals in Dental Assisting II   2 Cr Hrs
Covers dental terminology and spelling; dental charting; introductory business office procedures, including greeting and receiving patients, telephone techniques, filing and patient record management, appointment scheduling and recall. *Prerequisite: Completion of DAS 102 Fundamentals in Dental Assisting.*

DAS 112   Dental Materials I   3 Cr Hrs
Covers identification of materials used in general dentistry; physical and chemical properties, functions and classifications. Includes principles of safety and aseptic technique involved in working with materials and equipment and laboratory practice with impression materials and gypsum products. *Prerequisites: Admission to Dental Assistant program and completion or concurrent enrollment in DAS 115 Chairside Assisting I and DAS 119 Dental Anatomy.*

DAS 115   Chairside Assisting I   4 Cr Hrs
Introduces students to dental equipment, hand and rotary instruments and basic duties and responsibilities of the chairside assistant, such as seating and dismissing the patient, oral evacuation, retraction and instrument transfer. Introduces students to principles of microbiology, disease transmission, standard precautions and infection control techniques according to Occupational Safety and Health Administration (OSHA) and American Dental Association (ADA) guidelines. *Prerequisites: Admission into the Dental Assistant program and completion or concurrent enrollment in DAS 112 Dental Materials I and DAS 119 Dental Anatomy.*

DAS 118   Dental Radiology I   2 Cr Hrs
Covers basic principles of diagnostic radiology, equipment, radiation characteristics, radiation biology, protective measures and regulations, bisecting angle and paralleling techniques, extraoral radiology and anatomical landmarks. Instruction and laboratory techniques include exposure, processing, mounting and evaluating dental films using the Dxttr mannequin. *Prerequisites: Admission to the Dental Assistant program and completion or concurrent enrollment in DAS 107 Anatomy for*

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Dental Assistants and DAS 115 Chairside Assisting I.

DAS 119   Dental Anatomy   2 Cr Hrs
Covers the development of the oral cavity, teeth and supporting structures. The primary and permanent teeth are studied in detail as well as the major anatomic landmarks of the head and neck. Includes tooth drawing and placement of restorations in manikin teeth. *Prerequisites: Admission into the Dental Assistant program and completion or concurrent enrollment in DAS 107 Anatomy for Dental Assistants.*

DAS 125   Dental Science I   2 Cr Hrs
Provides students with knowledge of medical emergencies that may arise in the dental setting. Students are expected to recognize signs and symptoms of specific emergencies to assist in the delivery of the suggested treatment. CPR for the health-care professional, basic first aid and skills in taking and recording vital signs will be are taught. Pharmacology for the dental assistant and theoretical application of nitrous oxide is also included. *Prerequisites: DAS 107 Anatomy for Dental Assistants and DAS 135 Chairside Assisting II.*

DAS 129   Dental Science II   1 Cr Hr
Studies disease processes, especially those involving the oral cavity. *Prerequisites: DAS 107 Anatomy for Dental Assistants, DAS 119 Dental Anatomy and concurrent enrollment in DAS 155 Chairside Assisting IV.*

DAS 132   Dental Materials II   2 Cr Hrs
Continuation of DAS 112 Dental Materials I. Laboratory practice with dental cements, waxes, resins and restorative materials. Custom trays, dies, articulated models and temporary crowns are fabricated. *Prerequisite: Completion of DAS 112 Dental Materials I.*

DAS 135   Chairside Assisting II   3 Cr Hrs
Continuing practice of clinical dental assisting skills plus study of dental anesthesia, restorative dentistry with practice in application of matrix bands, dental dams and fixed prosthodontics. *Prerequisite: Completion of DAS 115 Chairside Assisting I.*

DAS 138   Dental Radiology II   2 Cr Hrs
Continuation of DAS 118 Dental Radiology I with more intensive experience in exposing, processing and mounting intraoral x-ray films using the Dxttr mannequin and patients. Students are closely supervised and an evaluation is made of each completed survey. Radiographic safety and infection control procedures are emphasized. *Prerequisite: DAS 118 Dental Radiology I.*

DAS 142   Dental Office Procedures   2 Cr Hrs
Provides instruction in additional business office procedures: supplies and inventory, expenses and disbursements, banking procedures, recording fees charged and paid, collections, computer applications in the dental office and dental insurance. Job-seeking skills are also included. *Prerequisites: DAS 111 Fundamentals in Dental Assisting II and concurrent enrollment in DAS 145 Chairside Assisting III and DAS 155 Chairside Assisting IV.*

DAS 143   Dental Materials III   1 Cr Hr
Continuation of Dental Materials I and II. This course includes identification of materials used in general dentistry and dental laboratory procedures. Proper manipulation of materials, their uses and correct storage are practiced. Various laboratory procedures including waxing, investing and

casting of a crown, construction of baseplates and bite rims, bleaching trays and an orthodontic retainer are practiced. Students are instructed in and expected to demonstrate the safe operation of laboratory equipment. *Prerequisites: DAS 132 Dental Materials II and concurrent enrollment in DAS 145 Chairside Assisting III.*

DAS 144   Clinical Experience I   4 Cr Hrs
Opportunity to apply and practice the principles and procedures studied in the formal academic program. In private practice dental offices (both general practice and specialty offices), government clinics and public health facilities, students demonstrate the principles of chairside assisting, dental laboratory procedures and dental office procedures. *Prerequisites: Concurrent enrollment in DAS 125 Dental Science I, DAS 138 Dental Radiology II, DAS 143 Dental Materials III and DAS 145 Chairside Assisting III.*

DAS 145   Chairside Assisting III   1 Cr Hr
Continuation of Chairside Assisting I and II. This course provides a foundation for assisting in the dental specialties of oral and maxillofacial surgery, endodontics and removable prosthodontics. Procedures, instruments and materials involved in these areas are studied. *Prerequisites: DAS 135 Chairside Assisting II and concurrent enrollment in DAS 143 Dental Materials III.*

DAS 155   Chairside Assisting IV   1 Cr Hr
Continuation of Chairside Assisting I, II and III. This course provides a foundation for assisting in the dental specialties of periodontics, orthodontics, dentofacial orthopedics and pediatric dentistry. Procedures, instruments and materials involved in these areas are studied. *Prerequisites: DAS 145 Chairside Assisting III and concurrent enrollment in DAS 143 Dental Materials III.*

DAS 156   Clinical Experience II   4 Cr Hrs
In private practice dental offices (both general practice and specialty offices), government clinics and public health facilities, students demonstrate the principles of chairside assisting, dental laboratory procedures and business office procedures. Scheduled clinical seminars provide opportunities to review and discuss experiences and procedures. *Prerequisites: Concurrent enrollment in DAS 129 Dental Science II, DAS 138 Dental Radiology II, DAS 142 Dental Office Procedures, DAS 143 Dental Materials III and DAS 155 Chairside Assisting IV.*

DAS 214   Supragingival Scaling   4 Cr Hrs
Designed for experienced dental assistants to expand their skills in preventive dentistry with didactic, laboratory and clinical instruction in supragingival scaling and polishing. Includes review of dental anatomy and terminology, radiography and infection control, as well as didactic instruction in nutrition, periodontal disease, dental caries, oral hygiene instruction, topical fluoride, principles of instrumentation, communication skills and risk management. *Prerequisites: Graduate of an accredited dental assistant program and CDA and six months of experience as a dental assistant or three years employment as a dental assistant within the last five years or departmental consent.*

Emergency Medical Technician–Basic

EMS 105   Emergency Medical Technician–Basic   10 Cr Hrs
Prepares students to perform minimum entry-level emergency care in the out-of hospital environment. Emphasis includes recognizing the nature and seriousness of the patient's condition, administering appropriate emergency medical care, lifting, moving and positioning the patient to minimize discomfort and prevent further injury and how to perform these duties safely and effectively. At the end of this course, successful students are eligible to sit for Kansas certification testing as an Emergency Medical Technician-Basic.

Home Health Aide

GRA 104   Home Health Aide   2 Cr Hrs
Prepares the certified nurse aide (CNA) to care for clients in community and home settings. Graduates may take the Kansas certification examination to become a home health aide (HHA). *Prerequisite: GRA 101 Certified Nurse Aide or Kansas Certified Nursing Aide certification.*

IV Therapy

ALH 160   IV Therapy for LPNs   3 Cr Hrs
Prepares LPNs to perform activities as defined in KAR 60-16-102 (b). Presents knowledge, skills and competencies in administration of IV fluid therapy. Approved by the Kansas State Board of Nursing. *Prerequisite: LPN with proof of license. Contact practical nurse department chair for additional information.*

Medical Assistant

ALH 101   Medical Terminology   3 Cr Hrs
Designed to present basic principles of medical word building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

MEA 101   Professional Issues *   2 Cr Hrs
Focuses on the basic concepts in the professional practice of medicine and the role and function of the medical assistant. Students discuss personal and professional characteristics and legal and ethical standards for medical assistants, explore professional and personal therapeutic communications and address time management and goal setting. *Prerequisite: Admission to Medical Assistant program.*

MEA 111   Patient Care I   5 Cr Hrs
Introduces basic clinical skills necessary for medical assistants. Presents aseptic practices for the medical office and studies patient interaction, such as interviewing, obtaining, evaluating and documenting vital signs and assisting with basic physical exams and testing. *Prerequisites: Admission to Medical Assistant program and completion or concurrent registration in MEA 110 Human Body or Anatomy and Physiology with a laboratory component.*

MEA 113   Administrative Aspects I *   3 Cr Hrs
Teaches the administrative skills of the health-care team member. Skills include effective telephone techniques, scheduling patients for appointments, management of facilities, record management and use of office equipment. *Prerequisites: Admission to Medical Assistant program and documentation showing concurrent enrollment or completion of a college-level computer course within the last five years.*

MEA 115   Insurance Billing and Coding *   3 Cr Hrs
Educates the health-care team member on the mechanics of submission of electronic/paper insurance claim forms and current industry coding for medical office treatments and procedures. *Prerequisites: Admission to Medical Assistant program and completion or concurrent registration in MEA 113 Administrative Aspects for Medical Assisting I. Insurance Billing and Coding may also be taken as an open-enrollment course with instructor's approval.*

MEA 117   Pharmacology *   5 Cr Hrs
Focuses on the medical assistant's role in the calculation, preparation and administration of various medications. Studies administration of topical, oral and buccal medications; return demonstrations are required. *Prerequisites: Admission to Medical Assistant program and completion or concurrent registration in MEA 111 Patient Care I.*

MEA 120   Diagnostic Procedures   2 Cr Hrs
Focuses on the specialized procedures associated with the human body. Students perform pulmonary function testing, electrocardiograms and learn basic EKG interpretation. *Prerequisites: Successful completion of all Medical Assistant program first-semester coursework and competencies. Diagnostic Procedures may also be taken as an open-enrollment course, with instructor's approval.*

MEA 121   Patient Care II   5 Cr Hrs
Focuses on expanding the knowledge gained in MEA 111 Patient Care I and MEA 117 Pharmacology for Medical Assistants. Explores more complex and independent procedures performed by medical assistants. Minor surgical procedures, physical therapy, sterile procedures, emergency procedures and medication administration by injection and intravenously are addressed. Return demonstration and competency are required. *Prerequisites: Successful completion of all Medical Assistant program first-semester coursework and competencies.*

MEA 123   Administrative Aspects II   1 Cr Hr
This upper-level course combines previous coursework as an introduction to the expanded role of the medical assistant as the medical office manager. Students design and produce patient information documents. Students perform proofreading on a variety of medical document seen in the medical office. Professional communications, job-seeking and interviewing skills are expanded through résumé writing and the creation of job descriptions applicable to the Medical Assistant. *Prerequisites: Successful completion of all Medical*

Assistant program first-semester coursework and competencies.

MEA 125   Clinical Laboratory Procedures *   **4 Cr Hrs**
Addresses the role and function of the professional in the clinical laboratory setting. Topics include safety, Clinical Laboratory Improvement Act of 1988 (CLIA-88) government regulations and quality assurance in the laboratory. Students learn concepts and perform procedures in the different departments of the laboratory, including specimen collection and performance of CLIA-88 low- and/or moderate-complexity testing. Students demonstrate competencies in a wide variety of techniques used to collect, process and test specimens. *Prerequisites: Successful completion of all Medical Assistant program first-semester coursework and competencies.*

MEA 131   Externship in Medical Assisting   **6 Cr Hrs**
The application phase of the Medical Assistant program gives students opportunities to apply and practice the principles and procedures learned while participating in supervised, non-remunerative externship experiences in physicians' offices and clinics. Students are expected to adapt to individual medical office's rules and routines. Evaluation is based on student's preparation for duties, active participation, attendance and professionalism. Guidelines and participation requirements specific to the externship are explained. *Prerequisites: Successful completion of all Medical Assistant program first-semester coursework and competencies. Minimum grade of C in all second-semester coursework that has been completed or is running concurrently with MEA 131 Externship in Medical Assisting.*

*   Kansas Workforce Education Curriculum (KWEC) state curriculum.

MEA 210   Advanced Procedures in Medical Assisting   **4 Cr Hrs**
Provides the graduate Medical Assistant an opportunity to expand current knowledge and expertise in specialized testing areas and in assisting with the performance of more complex clinical duties.

Medical Coding

ALH 101   Medical Terminology   **3 Cr Hrs**
Presents basic principles of medical word building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so that students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject.

BIO 100   Biology Review   **1 Cr Hr**
Introduces materials covered in BIO 110 Principles of Biology. It is recommended for students planning to take BIO 150 Human Anatomy and Physiology or BIO 160 Microbiology, those who have not had a life science course within the past five years or students wishing to prepare for BIO 110 Principles of Biology.

BIO 150   Anatomy & Physiology   **5 Cr Hrs**
A detailed study of the structure and function of the human body. Laboratory work includes tissue examination, basic physiological experiments and structural identification of all organ systems.

**MEC 101   Insurance Billing & Coding
for the Physician's Office**   **4 Cr Hrs**
Prepares students with the mechanics and skills to submit electronic/paper insurance claim forms after applying current industry coding for medical office treatments and procedures.

Personal Training

ALH 105   First Aid & CPR   **3 Cr Hrs**
Covers cause, prevention and first aid care of life-threatening respiratory and cardiac emergencies and non-life threatening emergencies for infant, child and adults as outlined by the American Red Cross.

PTR 100   Introduction to Personal Training   **3 Cr Hrs**
Provides students with the information necessary for designing, implementing and managing successful training programs. Students fulfill the criteria necessary to obtain the National Strength and Conditioning Association's NSCA-CPT certification.

PTR 101   Principles of Strength & Conditioning   **3 Cr Hrs**
Provides students with the information necessary to design and implement successful strength and conditioning programs through assessment and analysis of fitness and sports movement.

PTR 102   Introduction to Exercise Science   **3 Cr Hrs**
An introductory course that examine the philosophical, historical and psycho-social origin of the fields of exercise science and health promotion. Current issues and future directions are also explored.

PTR 103   Kinesiology & Biomechanics   **3 Cr Hrs**
Increases students' knowledge of the structure and function of skeletal and muscular systems as well as the mechanical principles related to motor performance in sports and exercise.

PTR 104   Nutrition for the Athlete   **3 Cr Hrs**
Addresses nutrition as it applies to the everyday athlete, weight management/weight loss, common diets, dietary supplements, ergonomic aids and eating disorders. Contents focus on the knowledge, skills, abilities for nutrition and weight management established by the American College of Sports Medicine and National Strength and Conditioning Association.

PTR 105   Exercise Program Design & Instruction   **3 Cr Hrs**
Exposes student to the business aspects of the fitness profession such as program administration, quality assurance and effective communication skills for the professional personal trainer.

PTR 106   Fitness Assessment & Evaluation   **3 Cr Hrs**
Focuses on the knowledge, skills and abilities required to become proficient in performing a variety of exercise tests and prescribe appropriate exercise for aerobic capacity, muscular strength and endurance, body composition, flexibility and other parameters of physical fitness.

PTR 107   Methods for Enhancing Physical Performance   **3 Cr Hrs**
Teaches students how to implement performance enhancement methodologies and practices using basic sports mechanics and exercise physiology. Students are able to train individuals in speed, agility, power, balance, coordination and endurance and design programs appropriate to their clientele.

PTR 110 Core Strength & Stability 1 Cr Hr
Teaches students how to perform core strength and stability training utilizing stability balls, resistance bands, yoga, pilates, Tai Chi and Qigong.

PTR 111 Weight Training 1 Cr Hr
Provides students with opportunities to participate in basic weight training and conditioning designed to develop physical strength and endurance. Students focus on fitness activities that can lead to a healthier lifestyle.

PTR 112 Yoga 1 Cr Hr
Provides students with opportunities to participate in yoga routines designed to develop flexibility, better posture, coordination and balance. Students focus on fitness activities that can lead to a healthier lifestyle.

PTR 113 Circuit Training 1 Cr Hr
Provides students with opportunities to participate in circuit training routines designed to develop muscular strength/endurance and cardiovascular fitness and endurance. Students focus on fitness activities that can lead to a healthier lifestyle.

PTR 114 Aerobics 1 Cr Hr
Provides students with opportunities to participate in aerobics training designed to develop cardiovascular fitness and endurance. Students focus on fitness activities that can lead to a healthier lifestyle.

PTR 120 Internship for Personal Training 3 Cr Hrs
Provides the final field experience in a community fitness/wellness setting. Practical experiences focus on all aspects of program development and delivery. Students are also involved with the daily functions of the wellness/fitness setting.

Phlebotomy

PBT 160 Concepts of Phlebotomy 4 Cr Hrs
Develops students' interpersonal and technical skills that are required for competent blood specimen collection in hospital and outpatient settings. Includes classroom lecture to develop medical terminology and basic understanding of laboratory specimen collection techniques and methods. Emphasis is given to professional behavior, proper patient identification and procedures for a variety of sample collection methods. A grade of C or better is required in this course to be eligible for enrollment in MLT 170 Phlebotomy Clinical Internship. *Prerequisite: Meet requirements for Health Sciences programs.*

PBT 161 Phlebotomy Laboratory 4 Cr Hrs
Develops the laboratory skills required of a phlebotomist. Students apply current laboratory safety and infection control practices while performing clinical laboratory specimen collection and processing. Simulated laboratory practice of phlebotomy skills includes utilizing artificial arms to start and progresses to real (student) arms. Reinforces material related to the clinical practice of phlebotomy. A grade of C or better is required in this course to be eligible for enrollment in MLT 170 Phlebotomy Clinical Internship. *Prerequisite: Taken concurrently with MLT 160 Concepts of Phlebotomy.*

PBT 170 Phlebotomy Clinical Internship 4 Cr Hrs
Supervised phlebotomy experience in a health-care facility. Students are assigned to affiliated clinical laboratories. Provides students with opportunity to apply knowledge and skills in performing clinical phlebotomy procedures.

Professional attitudes are developed by interacting with other health-care professionals and consumers. Graduates are eligible to take a national phlebotomy certification exam. *Prerequisite: Successful completion of MLT 160 Concepts of Phlebotomy and MLT 161 Phlebotomy Laboratory.*

Practical Nurse

PNR 120 KSPN Foundations of Nursing 4 Cr Hrs
Utilizes the nursing standards of practice based on biology, psychosocial, spiritual and cultural principles to meet the needs of clients throughout the lifespan. Emphasis is placed on basic nursing skills, patient safety and therapeutic communication. Concepts and skills are enhanced in subsequent courses.

PNR 121 KSPN Foundations of Nursing Clinical 2 Cr Hrs
Explores the art and science of nursing in this clinical course. Emphasis is placed on the nursing process, cultural and spiritual awareness, communication, data collection, performance of basic nursing skills and documentation. Principles of safe medication administration are introduced.

PNR 122 Pharmacology 3 Cr Hrs
Introduces the principles of pharmacology, drug classifications and the effects of selected medications on the human body. The nursing process is used as the framework for ensuring safe and effective nursing care for clients across the lifespan.

PNR 123 KSPN Medical Surgical Nursing I 4 Cr Hrs
Focuses on the effects of disorders of selected systems throughout the lifespan and applies the nursing process in meeting basic needs. Health promotion and maintenance, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout.

PNR 124 KSPN Medical Surgical Nursing I Clinical 3 Cr Hrs
Simulated and actual care situation of selected systems throughout the life span, utilizing acute and long-term care settings. Emphasis is placed on critical-thinking and clinical decision-making skills.

PNR 126 KSPN Medical Surgical Nursing II 4 Cr Hrs
Focuses on the effects of disorders of selected systems throughout the lifespan using the nursing process in meeting basic needs. Prevention, rehabilitation and continuity of care are emphasized. The role of the practical nurse is incorporated throughout.

PNR 127 KSPN Medical Surgical Nursing II Clinical 3 Cr Hrs
Uses simulated and actual care situations of selected systems throughout the lifespan, utilizing acute and long-term care settings. Emphasis is placed on critical-thinking and clinical decision-making skill development. Principles of leadership for the practical nurse are implemented, as well as multi-tasking management skills for transition as a practical nurse.

PNR 130 KSPN Maternal Child Nursing 2 Cr Hrs
Focuses on pre- and post-natal maternal nursing care, as well as the care of children from infancy to adolescence. Emphasis is given to normal reproduction and frequently occurring biological, cultural, spiritual and psychosocial needs of the child-bearing and child-rearing family.

PNR 131 KSPN Maternal Child Nursing Clinical 1 Cr Hrs
Applies concepts from PNR 130 KSPN Maternal Child

Nursing. Emphasis is placed on the nursing process and meeting the basic needs of the maternal child client.

PNR 132   KSPN Gerontology Nursing   2 Cr Hrs
Explores issues related to the aging adult using the nursing process as the organizing framework. Also discusses the impact of ageism, alterations in physiological and psychosocial functioning and the role of the practical nurse in caring for older adult clients.

PNR 134   Role Development   1 Cr Hr
Expands the leadership and management skills necessary for personal and career growth and development. Assignment, delegation, teamwork and conflict management are emphasized. Provides opportunities to acquire additional knowledge in areas of concern. Builds on areas of strength to improve chances of being successful on the National Council Licensure Examination (NCLEX- PN).

PNR 135   KSPN Mental Health Nursing   2 Cr Hrs
Explores basic concepts and trends in mental health nursing. Therapeutic modalities and client behavior management are discussed. Emphasis is placed on using the nursing process and meeting the basic human needs of the mental health client.

Rehabilitative Aide

GRA 108   Rehabilitative Aide   2 Cr Hrs
Provides the certified nurse aide additional training to assist physical and occupational therapists in long-term care settings. *Prerequisite: GRA 101 Certified Nurse Aide or Kansas Certified Nurse Aide certification.*

Surgical Technology

ALH 101   Medical Terminology   3 Cr Hrs
Presents basic principles of medical word-building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject.

ALH 115   Pharmacology   3 Cr Hrs
This course will provide the basic pharmacology principles with an emphasis on a broad discussion of the primary medications in each of the pharmaceutical classification categories. This course is designed to meet the pharmacology needs of students enrolled in pre-allied health majors and would be beneficial for others in the allied health field who desire a greater understanding or pharmacological principles related to diseases, effects of drugs on different systems of the body, interaction of drugs, side effects, contraindications and effectiveness in relation to dosages.

BIO 150   Anatomy & Physiology   5 Cr Hrs
A detailed study of the structure and function of the human body. Laboratory work includes tissue examination, basic physiological experiments and structural identification of all organ systems.

BIO 160   Microbiology   5 Cr Hrs
An introduction to microorganisms and their morphology, physiology, genetics and distribution. Emphasis is placed on the relationship of microorganisms to disease and the human immune responses. Techniques involving staining, culturing, identifying and biochemistry are considered in laboratory. *Prerequisites: Must complete one of the following: BIO 110 Principles of Biology, BIO 100 Biology Review or successful completion of a life science laboratory class within the past five years. Suggested Prerequisite: CHM 110 General Chemistry.*

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CPR 001   CPR for Healthcare Providers   1 Cr Hrs
Covers cause, prevention and first aid care of life-threatening respiratory and cardiac emergencies and non-life threatening emergencies for infants, children and adults as outlined by the American Red Cross.

SGT 101   Introduction to Surgical Technology   4 Cr Hrs
Introduces the roles and functions of surgical team members and operating room organization. Presents legal and ethical issues, division of duties, hospital organization and management, medical terminology, basic communication skills and interpersonal relationships. *Prerequisite: Admission to Surgical Technology program.*

SGT 115   Surgical Procedures I   3 Cr Hrs
Coordinates study of theoretical and practical applications of various surgical procedures. Emphasis is placed on pathology, a methodical approach to surgical procedures and preparation and application of aseptic techniques with extensive laboratory experience to develop critical skills that are required to function in the operating-room environment. *Prerequisites: Completion or concurrent registration in SGT 120 Principles and Practices in Surgical Technology, SGT 105 Microbiology for Surgical Technology, SGT 107 Pharmacology for Surgical Technology and SGT 111 Patient Care I.*

SGT 119   Surgical Technology Clinical Experience I   4 Cr Hr
Allows students to participate in supervised, non-remunerative clinical experiences in hospital operating rooms with emphasis on general surgical procedures. *Prerequisites: Completion or concurrent registration in SGT 111 Patient Care I and SGT 115 Surgical Procedures I.*

SGT 120   Principles and Practices in Surgical Technology   5 Cr Hrs
Presents basic principles and practices necessary to prepare students for clinical experiences. Aseptic techniques and supplies, equipment, sterilization, disinfection and decontamination are major components of the course. Includes rotations through central processing, preoperative care and transportation areas. *Prerequisites: Completion or concurrent registration in SGT 101 Introduction to Surgical Technology and SGT 105 Microbiology for Surgical Technology.*

SGT 125   Surgical Procedures II   4 Cr Hrs
Continuation of SGT 115 Surgical Procedures I. Studies more specialized surgeries to expand the knowledge of supplies, equipment and steps involved in more complex surgeries. *Prerequisites: Concurrent registration in SGT 121 Patient Care II*

and SGT 129 Clinical Experience II.

SGT 129   Surgical Technology Clinical Experience II   4 Cr Hrs
Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24 hours per week. Emphasis is placed on clinical specialties, such as general, gynecology, genito/urinary and EENT with rotations through endoscopy and labor and delivery. *Prerequisites: Concurrent registration in SGT 121 Patient Care II and SGT 125 Surgical Procedures II.*

SGT 130   Surgical Technology Clinical Experience III   3 Cr Hrs
Students are assigned to supervised, non-remunerative clinical practice in hospital operating rooms approximately 24 hours per week. Emphasis is placed on clinical specialties, such as orthopedics and neurosurgery with rotations through post-anesthesia rooms. *Prerequisites: Concurrent registration in SGT 121 Patient Care II and SGT 125 Surgical Procedures II.*

**SGT 140   Principles & Practices in
                 Surgical Technology Lab   3 Cr Hrs**
Students will demonstrate concepts necessary to prepare students for clinical experience. Aseptic technique and supplies and equipment are major components of this course.

Manufacturing and Engineering Technology

Air Conditioning Technology

ACR 100   Refrigeration Fundamentals   3 Cr Hrs
Introduces basic concepts and theories of refrigeration. Topics include the laws of thermodynamics, pressure and temperature relationships, heat transfer, refrigerant identification, the refrigeration cycle and safety.

ACR 101   Principles & Practices of Refrigeration   4 Cr Hrs
Introduces the use of refrigeration tools, materials and procedures needed to install, repair and service refrigeration systems. Topics include refrigeration tools; piping practices; service valves; leak testing; refrigerant recovery, recycling and reclamation; evacuation; charging; and safety. *Prerequisite: ACR 100 Refrigeration Fundamentals.*

ACR 105   Electrical Circuits & Wiring Diagrams   4 Cr Hrs
Provides instruction in identifying, installing and testing commonly used electrical components in an air conditioning system. Topics include pressure switches, overload devices, transformers, magnetic starters, other commonly used controls, diagnostic techniques, installation procedures and safety. *Prerequisite: ACR 103 Electrical Fundamentals.*

ACR 107   Air Conditioning Systems   3 Cr Hrs
Introduces fundamental theory and techniques needed to identify major components and functions of air conditioning systems. Instruction is given on types of air conditioning systems and use of instrumentation. Topics include types of AC systems, heat-load calculation, properties of air, psychrometrics, duct design, air filtration and safety principles. *Prerequisite: ACR 102 Refrigeration Systems Components.*

ACR 110   Gas Heating Systems   3 Cr Hrs
Introduces principles of combustion and service requirements for gas heating systems. Topics include service procedures, electrical controls, piping, gas valves, venting, code requirements, principles of combustion and safety. *Prerequisites: ACR 102 Refrigeration Systems Component, ACR 106 Electric Control Systems and Installation and MAT 101 General Mathematics.*

ACR 111   Heat Pumps & Related Systems   3 Cr Hrs
Provides instruction on the principles, application and operation of a residential heat pump system. Topics include installation procedures, servicing procedures, electrical components, geothermal ground source energy supplies, dual fuel, troubleshooting, valves and safety. *Prerequisites: ACR 102 Refrigeration Systems Components and ACR 106 Electrical Control Systems and Installation.*

**ACR 115   Electricity & Electronics
                 for the HVACR Service Technician   4 Cr Hrs**
Emphasizes fundamentals of electricity and electronics with application to heating, ventilating, air conditioning and refrigeration equipment. Provides hands-on instruction in electrical-mechanical applications. Ohm's and Watt's laws

are studied, along with magnetic principles, inductance and capacitance in circuits. Identification and construction of series, parallel and combination circuits are explored through laboratory experiments. This course also covers common single-phase and small three-phase electric motors. Presentations focus on basic motor theory, common types of motors, starting components and protection devices. Diagnostic skills for motor troubleshooting and replacement are also developed.

ACR 120   Building Control Systems I   3 Cr Hrs
Provides instruction on the installation and service of residential air conditioning systems, as well as basic building controls. Topics include installation procedures, service, split-systems, add-on systems, packaged systems and safety.

ACR 125   EPA Certification   1 Cr Hr
Prepares students for the certification exam required by federal and state governments and the heating, ventilation, air conditioning and refrigeration (HVAC/R) industry. Students focus on Environmental Protection Agency (EPA) refrigerant-handling exams and Industry Competency Exams (ICE).

ACR 130   HVAC Design   4 Cr Hrs
Discusses heat energy, conditions of human comfort, psychrometric chart and plotting various air conditions. Calculations of heat transfer into and out of a residential structure are instructed using terms, concepts, measurements and calculations of moving air. This course is designed to develop and exercise students' ability to perform heat loss and gain calculations.

ACR 135   Internship in HVACR   5 Cr Hrs
Students participate in an industry-related assignment associated with the heating, ventilation, air conditioning and refrigeration systems. All work assignments must be approved by a faculty advisor.

ACR 140   Sheetmetal   3 Cr Hrs
Introduces basic concepts and theories of duct fabrication and installation used in the heating, ventilation and air conditioning (HVAC) industry. Topics include the techniques and formulas used to lay out a variety of ducting connections and air returns. Students calculate air flows and volume for both primary and return lines. Shearing and forming of sheetmetal is used in fabricating basic duct systems.

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CWG 110   Welding Applications   4 Cr Hrs
Provides instruction in the major welding and cutting operations. Students develop knowledge and skills to identify and safely operate a variety of welding and cutting machines/equipment including arc welding, MIG welding, TIG welding, oxy-acetylene welding and cutting and shearing operations.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

MTH 112   College Algebra   3 Cr Hrs
An introduction of algebraic functions and some transcendental functions with application in business and life, natural and social sciences. Topics include solving equations, zeros, rational functions, matrices, exponentials and logarithms and systems. Additional topics are included as time permits. Students must furnish their own TI-83 or TI-83 PLUS graphing calculators. *Prerequisites: A minimum grade of C in MTH 101 Intermediate Algebra or satisfactory course placement assessment or 21 ACT math score.*

SAF 100   OSHA Construction Safety I   1 Cr Hrs
This course provides a fundamental understanding of OSHA Safety for the Construction Industry. Students who sucessfully complete the course will be issued a Department of Labor (DOL) 10 hour card.

Machining Technology

CAT 101   CATIA Part Design & Sketcher   4 Cr Hrs
Covers the creation of solid parts without complex contours. Students are introduced to the part environment of CATIA V5 and learn how to work between sketcher and parts design workbenches to create individual parts.

CAT 105   CATIA Assembly Design   4 Cr Hrs
Covers the use of multiple parts to create an assembly. It also covers the various analytical and navigation tools that are available within an assembly. Students are introduced to the product environment of CATIA V5 and learn how to work with multiple parts between the assembly design, digital mock-up (DMU) space analysis and DMU navigator workbenches.

CAT 115   CATIA Prismatic Machining   4 Cr Hrs
Covers the machining operations involved in three-axis milling. Students are introduced to the process environment of CATIA V5 and learn how to work between the process, part and product environments.

CAT 124   CATIA Surface Machining   3 Cr Hrs
A continuation in the manufacturing environment. This course covers the more advanced machining operations involved in full three-axis and multi-axis machining. Students learn how to integrate the manufacturing tools available in prismatic machining, surface machining and advanced machining.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CWG 110   Welding Applications   **4 Cr Hrs**
Provides instruction in the major welding and cutting operations. Students develop knowledge and skills to identify and safely operate a variety of welding and cutting machines/equipment including arc welding, MIG welding, TIG welding, oxy-acetylene welding and cutting and shearing operations.

EBS 115   Pre-Algebra   **3 Cr Hrs**
Arithmetic with fractions, decimals and percents. Introduction to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EMP 100   Global Professional Standards   **2 Cr Hrs**
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

MCD 201   Geometric Dimensioning & Tolerance   **3 Cr Hrs**
An in-depth study develops a basic working knowledge in geometric dimensioning and tolerancing (GD&T). It is delivered per the American Society of Mechanical Engineers (ASME) Y14.5M, 1994 standard. This program has been presented and refined over the past 25 years and covers what personnel need to know to work in an industrial environment on a daily basis. The course includes emphasis on all the basics, such as the rules, measurement theory, the datum reference frame, form, orientation, profile and positional tolerancing. The program materials contain a variety of computer color-animated graphics, video clips and plastic models that allow students to clearly understand the concepts.

MMG 102   Blueprint Reading I   **2 Cr Hrs**
Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies.

MMG 142   Manual Lathes   **6 Cr Hrs**
Includes theory and laboratory instruction about basic lathe operations, safety and use and care of hand and machine tools. Addresses basic lathe operations such as turning, facing, drilling, tapping and tool grinding.

MMG 143   Manual Mills   **6 Cr Hrs**
Includes theory and laboratory instruction of basic manual mill operations, safety and use and care of hand tools and machine operation and set-ups.

MMG 144   CNC Mills   **6 Cr Hrs**
Introduces the actual machine set-up utilizing various clamping vises and fixtures along with computer numerical control (CNC) machine operation methods and techniques necessary to produce a variety of discrete parts on the CNC mills.

MMG 147   Principles of Machining I   **2 Cr Hrs**
Introduces students to basic metal-working concepts, including metal-cutting fundamentals, identification and use of hand and cutting tools, various machine tool operations and the use and care of precision measuring instruments. Course is a preliminary to matching laboratory courses and addresses the safe use of machine and hand tools.

MMG 152   CNC Lathes   **6 Cr Hrs**
Introduces students to two-axis computer numerical control (CNC) lathe machining. The theory of operations is developed in classroom with application of the program accomplished on industry type machines. Students are able to set up the machine and know the terminology of coordinates. Cutter paths, angle cutting and linear cutting are studied.

MMG 255   Machining Internship   **4 Cr Hrs**
This internship course offers students opportunities to be employed in their field with a 40-hour work week to expand their work experience related to their field of study.

Manufacturing Engineering Technology

CAT 101   CATIA Part Design & Sketcher   **4 Cr Hrs**
Covers the creation of solid parts without complex contours. Students are introduced to the parts environment of CATIA V5 and learn how to work between sketcher and parts design workbenches to create individual parts.

CAT 105   CATIA Assembly Design   **4 Cr Hrs**
Covers the use of multiple parts to create an assembly. It also covers the various analytical and navigation tools that are available within an assembly. Students are introduced to the product environment of CATIA V5 and learn how to work with multiple parts between the Assembly Design, digital mock-up (DMU) Space Analysis and DMU Navigator workbenches.

CAT 115   CATIA Prismatic Machining   **4 Cr Hrs**
Covers the machining operations involved in three-axis milling. Students are introduced to the process environment of CATIA V5 and learn how to work between the process, parts and product environments.

CAT 122   CATIA ENOVIA DMU   **2 Cr Hrs**
Intended for students who want to learn to view and analyze CAD data. It also covers the various analytical and navigational tools available within ENOVIA DMU. It also shows how functional dimensioning and tolerancing information can be viewed. Students are introduced to the product environment and the 2-D viewer environment to view all types of data.

CWG 110   Welding Applications   **4 Cr Hrs**
Provides instruction in the major welding and cutting operations. Students develop knowledge and skills to identify and safely operate a variety of welding and cutting machines/equipment including arc welding, MIG welding, TIG welding, oxy-acetylene welding and cutting and shearing operations.

EMP 100   Global Professional Standards   **2 Cr Hrs**
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

IND 105   Applied Electricity AC/DC   **3 Cr Hrs**
Provides an overview of applied electricity for technical and industrial applications. Topics include electrical units and principles, applied DC circuits, applied AC circuits,

common transformers, single-phase circuits, three-phase circuits, introduction to troubleshooting and common industrial motors/motor controls. The course emphasizes basic electrical terminology and associated problem solving in electrical technology. Competencies are reinforced with practical hands-on laboratory exercises and use of electrical meters.

IND 109   Basic Industrial Programmable Logic Controls   3 Cr Hrs
This course introduces operational theory, systems terminology, PLC installations, and programming procedures for programmable logic controls. Emphasis is placed on PLC programming, connections, installations, and start-up procedures. Topics include: PLC hardware and software, PLC functions and terminology, PLC installation and set up, PLC programming basics, relay logic instructions, timers and counters, connecting field devices to I/O cards, and PLC safety procedures.

IND 122   Industrial Fluid Power   3 Cr Hrs
Provides instruction in fundamental concepts and theories for safely operating hydraulic components and pneumatic systems. Topics include hydraulic theory, suction side of pumps, actuators, valves, pumps/motors, accumulators, symbols and circuitry, fluids, filters, pneumatic theory, compressors, pneumatic valves, air motors and cylinders and safety.

MCD 116   Introduction to CAD   5 Cr Hrs
Introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the Microsoft Windows operating system that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions and text. Students use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD. This course also examines dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references and sheet sets. Students learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple uses and create sheet sets. Student drawings are plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing drawings with AutoCAD.

MET 101   Fundamentals of Quality Control   3 Cr Hrs
This course will provide students with a fundamental understanding of quality improvement. Topics will include history of the movement, impact on industry, major components and tools of quality control as well as future trends. Students will have the opportunity to apply what they learn to industry based scenarios.

MET 105   Quality Assurance   3 Cr Hrs
This course is an overview of the fundamental aspects of quality assurance. Topics include quality organizations, product design systems, material controls, ISO 9100 and AS9100, and cost of quality and management concepts.

MET 110   Manufacturing Processes I   3 Cr Hrs
Introduces basic industrial manufacturing processes employing material removal technologies. Topics include

material removal processes, automated machining concepts, computer numerical control (CNC) and manual programming. Laboratory work parallels class work.

MET 115   Environmental Health & Safety   3 Cr Hrs
This course covers workplace environmental health and safety issues. Emphasis is placed on identifying and managing and effective EHS systems.

MET 135   Designs of Experiments   3 Cr Hrs
These course students will analyze the method and application of experiment design. Learning opportunities will include a review of common design experiment, learning to create design plans and using ANOVA tables. Student will apply concepts learned in an industry based scenario in which they design, plan and implement an original experiment.

MET 140   Quality Auditing   3 Cr Hrs
In this course students will learn the elements of quality audit as it applies to an manufacturing environment. Topics will include terminology, sampling, preparing for audit, performing the audit and reporting and follow up.

MET 145   Organizational Behavior   3 Cr Hrs
This course is designed to introduce students to the concepts, methodologies and theories used in the field of organizational development. Topics include leadership, teams, communication, and change.

MET 147   Statistical Quality Control   3 Cr Hrs
This course is designed to introduce the concepts of statistical quality control. Students will study statistical methods to improve product quality. Topics include methods and philosophy of statistical process control, basic concepts of SPC, and control charts for variables and attributes.

MET 160   Engineering Materials & Testing   3 Cr Hrs
Introduces basic industrial manufacturing processes employing material shaping, joining, and assembly technologies. Topics include: casting, molding, and related processes; particulate processing for metals and ceramics; metal forming and sheet metal working; gauging; joining and assembly processes; non-destructive examination; and surface processing operations. Laboratory work parallels class work.

MET 170   Facilities Planning   3 Cr Hrs
This course will provide students with the ability utilize data to develop effective production and service facilities. Topic will include work measurement, material handling, material flow analysis and methods analysis.

MET 172   Manufacturing Production Management   3 Cr Hrs
This course is designed to provide an introduction to the planning and control of production systems. Topics will include forecasting, inventory systems, production sequencing and scheduling. Students will apply classroom concepts to industry based project.

MMG 102   Blueprint Reading I   2 Cr Hrs
Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies.

MMG 144   CNC Mills   6 Cr Hrs
Introduces the actual machine set-up utilizing various clamping vises and fixtures along with computer numerical control (CNC) machine operation methods and techniques

necessity to produce a variety of discrete parts on both machining centers and turning centers.

MMG 147   Principles of Machining I   2 Cr Hrs
Introduces students to basic metal-working concepts including metal-cutting fundamentals, identification and use of hand and cutting tools, various machine tool operations and the use and care of precision measuring instruments. Course is a preliminary to matching laboratory courses and addresses the safe use of machine and hand tools.

Welding

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CWG 101   Occupational Safety / Welding   1 Cr Hr
Provides students with an appreciation and basic understanding of the safety rules and regulations that govern the construction industry. Students learn and apply safe work habits in the use of hand and power tools as well as the handling, use and application of hazardous materials. Films, videos, field trips and guest speakers supplement course.

CWG 102   Print Reading I / Welding   2 Cr Hrs
Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies.

CWG 103   Print Reading II / Welding   1 Cr Hr
Gives instruction in the universal language of drawing interpretation from which information is conveyed for the manufacture of parts and assemblies. *Prerequisite: CWG 102 Print Reading I / Welding and concurrent registration in any welding laboratory course.*

CWG 110   Welding Applications   4 Cr Hrs
Provides instruction in the major welding and cutting operations. Students develop knowledge and skills to identify and safely operate a variety of welding and cutting machines/equipment including arc welding, MIG welding, TIG welding, oxy-acetylene welding and cutting and shearing operations.

CWG 141   Oxy-Acetylene Welding & Cutting   2 Cr Hrs
Includes lecture and laboratory and teaches students to set up and operate oxy-acetylene welding and cutting equipment with emphasis on safety.

CWG 142   SMAW–Shielded Metal Arc Welding   7 Cr Hrs
Includes lecture and laboratory and teaches students the proper set up and operation of various types and brands of

arc welders. Laboratory time includes demonstrations and practice time for students to acquire arc-welding skills used in industry.

CWG 143   GMAW–Gas Metal Arc Welding   7 Cr Hrs
Includes lecture and laboratory and teaches the fundamentals of setting up and adjusting various MIG welding machines. Students practice American Welding Society basic joint designs and positions of welds and attain the skills necessary to gain entry-level employment in gas metal arc welding.

CWG 145   Fabrication & Design   2 Cr Hrs
Applies the basic principles gained for fabrication of various student or WATC campus-related projects. *Prerequisite: Any welding laboratory course or administrator approval.*

CWG 147   GTAW–Gas Tungsten Arc Welding   7 Cr Hrs
Provides instruction in the field of gas tungsten arc welding. Students develop skills needed to be employed in the welding areas of aluminum and steel.

CWG 149   Materials & Testing   2 Cr Hrs
Provides knowledge and skills in the areas of metallurgy and weld testing. Teaches the different uses and testing procedures for steel, stainless steel, aluminum and various alloys. Emphasizes welds approved for testing by the American Welding Society. *Prerequisite: Concurrent registration in any welding laboratory course or administrator approval.*

CWG 242   SMAW D1.1 Qualification   4 Cr Hrs
Assists students in preparing to take the shielded metal arc welding (SMAW) qualification test. Students follow all safety procedures related to the various tools and equipment involved in this course. They understand the qualification and code system for structural qualification; identify, measure, cut and prepare the material required for this qualification; and learn the skills for structural welding. Students have time in class to practice these skills in preparation for the structural certification test(s). Completion of this course does not ensure qualification. *Prerequisite: CWG 142 Shielded Metal Arc Welding or administrator approval.*

CWG 243   GMAW D1.1 Qualification   4 Cr Hrs
Assists students in preparing to take the gas metal arc welding (GMAW) qualification test. Students follow all safety procedures related to the various tools and equipment involved in this course; understand the qualification and code system for structural qualification; identify, measure, cut and prepare materials required for this qualification; and learn the skills for structural welding. Students have time in class to practice these skills in preparation for the structural qualification test(s). Completion of this course does not ensure qualification. *Prerequisite: CWG 143 Gas Metal Arc Welding or administrator approval.*

CWG 250   API 1104 Qualification   4 Cr Hrs
Assists students in preparing to take the pipe certification test. Students follow all safety procedures related to the various tools and equipment involved in this class. They understand the certification and code system for pipe certification. They also identify, measure, cut and prepare the pipe required for this certification. They learn the skills for structural welding cross-country gas and oil lines and have time to practice these skills in preparation for the pipe certification test.

EBS 115   Pre-Algebra   3 Cr Hrs
Arithmetic with fractions, decimals and percents. Introduction

to the metric system. Provides applications to measurement and consumer math. This course does not count toward AS, AA, AGS or AAS degrees.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

MCD 116   Introduction to CAD   5 Cr Hrs
This course introduces computer-aided drafting (CAD) and examines the hardware that makes up a CAD workstation. It also covers the operating system (Microsoft Windows) that enables the equipment to function as a unit. The course shows how to use AutoCAD to set up drawings and construct lines, circles, arcs, other shapes, geometric constructions, and text. Students will use display and editing techniques as well to obtain information about their drawings and work with drawing files. This course also introduces recommended drafting standards for students to use for properly preparing drawings with AutoCAD. This course also examines dimensioning, blocks and attributes, section views, isometric drawings, multiview layouts, annotative objects, external references, and sheet sets. Students will learn how to use AutoCAD to dimension drawings, create section lines and graphic patterns, design symbols and attributes for multiple use, and create sheet sets. Student drawings will be plotted or printed. This course also covers recommended drafting standards and practices for students to use for properly preparing drawings with AutoCAD.

MMG 142   Manual Lathes   6 Cr Hrs
Includes theory and laboratory instruction about basic lathe operations, safety and use and care of hand and machine tools. Addresses basic lathe operations such as turning, facing, drilling, tapping and tool grinding.

MMG 143   Manual Mills   6 Cr Hrs
Includes theory and laboratory instruction of basic manual mill operations, safety and use and care of hand tools and machine operation and set-ups.

MMG 152   CNC Lathes   6 Cr Hrs
Introduces students to two-axis computer numerical control (CNC) lathe machining. The theory of operations is developed in classroom with application of the program accomplished on industry-type machines. Students are able to set up the machine and know the terminology of coordinates. Cutter paths, angle cutting, linear and circular interpolation are studied.

Online Learning – The Virtual College

Online Learning Courses

Note: Online offerings vary each semester. Please check the WATC online schedule for most current information at www.watc.edu.

ACC 105   Fundamentals of Accounting   3 Cr Hrs
For students who want a working knowledge of accounting, but not to the extent as would the person working primarily in the accounting field. Although the basic accounting principles are learned and applied, the course, in comparison to Principles of Accounting I, covers a smaller amount of material at a somewhat slower pace. Recommended for students with no previous accounting background.

ACC 160   Principles of Accounting I   3 Cr Hrs
Helps students develop a basic understanding of accounting theory, concepts and procedures. It provides a foundation for further study for students seeking a career in accounting or business administration or for students entering the occupational field.

ACC 170   Principles of Accounting II   3 Cr Hrs
A continuation of ACC 160 Principles of Accounting I. Studies corporations including organization and operations; stockholders' equity, earnings and dividends; long-term assets and liabilities, investments, income tax and their effort on business decisions; and assessing a company's financial performance.

ALH 101   Medical Terminology   3 Cr Hrs
Presents basic principles of medical word building. The study develops competencies in the basic elements forming medical words, categorizing major suffixes and group prefixes. Anatomical, physiological and pathological terms are reviewed so that students better understand special medical procedures. This is the introductory course in medical terminology and is intended for all who desire knowledge in this subject.

CNU 010   Certified Nurse Aide Update   0 Cr Hr
Provides continuing education required by the Kansas Department of Health and Environment (KDHE) for renewal of the certified nurse aide (CNA) certificate when person is not gainfully employed as a CNA. *Prerequisite: GRA 101 Certified Nurse Aide.*

ALH 110   Principles of Nutrition   3 Cr Hrs
A study of the health of the individual as related to food and its assimilation in the human body. Principles of normal nutrition, food values and adequate nutrient allowances for growth and maintenance are examined.

ALH 160   IV Therapy for LPNs   3 Cr Hrs
Prepares LPNs to perform activities as defined in KAR 60-16-102(b). Presents knowledge, skills and competencies in administration of IV fluid therapy. Approved by the Kansas State Board of Nursing. *Prerequisite: LPN with proof of license. Contact Practical Nurse department chair for additional information.*

ART 100   Art Appreciation   3 Cr Hrs
Develops a personal appreciation of art. By combining a study of concepts and artists' works, students improve their judgment and ability to understand art critically.

AVC 100   Aerospace Safety   1 Cr Hr
Provides an in-depth study of the human and safety practices required to work in aviation and manufacturing fields. Topics include an introduction to Occupational Safety and Health Administration (OSHA) regulations; safety tools, equipment and procedures; hazardous waste; and first aid and cardiopulmonary resuscitation.

AVC 101   Applied Shop Math   2 Cr Hrs
Focuses on skills required to complete common shop math problems including reading and interpreting part dimensions, checking part features and recording accurate measurements. The application of mathematical skills to the manufacturing environment is an integral part of the course.

BIO 100   Biology Review   1 Cr Hr
Introduces materials covered in BIO 110 Principles of Biology. It is recommended for students planning to take BIO 150 Human Anatomy and Physiology or BIO 160 Microbiology, those who have not had a life science course within the past five years or students wishing to prepare for BIO 110 Principles of Biology.

BIO 110   Principles of Biology   5 Cr Hrs
An introduction to the biological concepts included in the General Education Biology Core Competencies. This includes understanding the nature of science, levels of organization, bioenergetics, reproduction and inheritance and the mechanisms of change. Laboratory stresses the process of scientific invesTIGation and observation of biological processes.

BMT 115   Beginning E-Mail Marketing   1 Cr Hr
Provides an understanding of how to plan an e-mail marketing campaign. Examines best practices for sending e-mail messages; discusses deliverability, tracking, list building and Controlling the Assault of Non-Solicited Pornography and Marketing (CAN-SPAM) compliance issues.

BMT 120   Social Media Madness   1 Cr Hr
Provides an understanding of what social media is and how it can be used in marketing your business. Examines ways to engage social media to promote a product, brand or identity.

BUS 102   Intermediate Document Processing   4 Cr Hrs
Develops keyboarding speed and accuracy with further mastery of correct keyboarding techniques. Students attain a minimum typing speed of 40 words per minute with a maximum of five errors on a five-minute timed keyboarding test. Topics include building speed and accuracy, formatting and producing business documents, language arts and proofreading. Laboratory practice parallels class instruction. *Prerequisite: BUS 101 Beginning Document Processing.*

BUS 104   Introduction to Business   3 Cr Hrs
Acquaints students with the nature and scope of business, its component parts, how business is owned, organized and managed. Emphasis is upon environmental forces and historical conditions that have influenced the growth of business from its early years to the present day.

BUS 105   Database Management   2 Cr Hrs
Emphasizes use of database management software packages to access, manipulate and create file data. Topics include data entry, data access, data manipulation, database creation and file documentation. *Prerequisite: CED 101 Computer Essentials.*

BUS 106   Office Procedures   2 Cr Hrs
Emphasizes essential skills required for the business office. Topics include office protocol, time management, travel and meeting arrangements. *Prerequisite: BUS 101 Beginning Document Processing.*

BUS 108   Word Processing   3 Cr Hrs
Emphasizes an intensive use of word processing software to create and revise business documents. Topics include equipment and supplies maintenance and usage, work area management, word processing software and productivity. *Prerequisites: CED 101 Computer Essentials and/or BUS 101 Beginning Document Processing.*

BUS 121   Business Communications   3 Cr Hrs
Provides knowledge and application of written and oral communications found in business situations. Topics include writing fundamentals and speaking fundamentals. *Prerequisite: BUS 120 Business English.*

BUS 122   Business Math   3 Cr Hrs
Emphasizes mathematical concepts found in business situations. Topics include basic mathematical skills, mathematical skills in business-related problem solving, mathematical information for documents, graphs and mathematical problems using electronic calculators (not to include the touch method). *Prerequisite: Program admission competency levels.*

BUS 130   Personal Finance   3 Cr Hrs
For non-business majors as well as for business majors. Course concerned with efficient management of money as a primary requirement for successful personal life. Aids individuals in establishing and maintaining credit, using a budget, safeguarding and investing savings and arranging personal insurance.

BUS 160   Human Relations – People at Work   3 Cr Hrs
Helps employees and supervisors gain human relations skills needed for success at their work sites. The case method is used to analyze situations in which actual job relations are presented.

BUS 175   Project Management & Leadership   3 Cr Hrs
Gives students the basic understanding of how to become a successful project manager. They learn how to initiate, plan, execute, monitor and close projects. They also learn how to use Microsoft Project 2007 to track projects.

BUS 205   Advanced Word Processing   3 Cr Hrs
Provides instruction in advanced word processing. Topics include advanced word processing concepts and applications and proofreading. *Prerequisites: BUS 108 Word Processing and BUS 120 Business English.*

CED 101   Computer Essentials   2 Cr Hrs
Develops students' computer literacy, keyboarding skills and meets the needs of students in associate degree and technical certificate programs. Students learn from hands-on experiences, basic skills in file management utilities, word processing, spreadsheets and graphical presentations in the Windows environment.

CED 115   Computer Applications   3 Cr Hrs
Develops students' computer literacy and meets the needs of students in associate degree programs. Students learn from hands-on experiences basic skills in file management utilities, word processing, spreadsheets, database management and graphical presentations in the Windows environment. *Prerequisite: Students are encouraged to complete a self-assessment to determine skill set prior to enrolling in this course.*

CED 120   Advanced Computer Applications   3 Cr Hrs
Enhances students' computer literacy and meets the needs of students in associate degree and/or certificate programs. Students learn from hands-on experiences, advanced skills in word processing, spreadsheet applications, database management and graphical presentations in the Windows environment. *Prerequisite: CED 115 Computer Applications, or acceptable prior experience with Microsoft Word, Excel, Access and PowerPoint.*

CHM 100   Chemistry Review   1 Cr Hr
Introduces basic concepts covered in CHM 125 Chemistry I. It is recommended for students who want to enroll in Chemistry I or a higher level chemistry course the following semester. It is not recommended for those taking CHM 110 General Chemistry.

CHM 110   General Chemistry   5 Cr Hrs
An introduction to chemistry that includes the study of matter, atoms, molecules, chemical arithmetic, chemical reactions, gas laws, acids and bases, organic chemistry and laboratory experimentation. *Prerequisite: EBS 120 Elementary Algebra or a higher level math course with a grade of C or better, completed within the past five years, or a math ACT score of 18 or better or an equivalent assessment score.*

CNU 010   Certified Nurse Aide Update   0 Cr Hr
Provides the continuing education required every two years by the Kansas Department of Health and Environment (KDHE) for renewal of the certified nurse aide (CNA) certificate when CNA is not gainfully employed. *Prerequisite: GRA 101 Certified Nurse Aide.*

CRJ 101   Introduction to Criminal Justice   3 Cr Hrs
Introduction to the historical backgrounds, agencies and processes, purposes and functions of the system. Covers the ethics, administration and legal problems of the criminal justice system.

ECO 105   Principles of Macroeconomics   3 Cr Hrs
Explores the fundamental aspects of the United States economy including growth, fiscal and monetary policies, unemployment, inflation, national debt, money and the Federal Reserve System. National and international policy topics are discussed.

ECO 110   Principles of Microeconomics   3 Cr Hrs
Attention is given to the methods of producing the goods and services that the economy provides. The following areas are explored: supply, demand, pricing, scarcity, business firms, business anti-trust and public interest, incomes, wages and salaries, income distribution, taxes and tax reform.

EMP 100   Global Professional Standards   2 Cr Hrs
Provides a study of human relations and professional development in today's rapidly changing world that prepares students for living and working in a complex society. Topics include human relations, job acquisition, job retention, job advancement and professional image skills.

ENG 101   Composition I   3 Cr Hrs
Improves the reading and writing skills of students. The emphasis is on fundamental principles of written English in structurally correct sentences, paragraphs and expository themes. Critical analysis of essays is used to aid in developing students' thinking, support of thesis and style. Students are introduced to the basic components of research by writing a documented essay in Modern Language Association (MLA) style. *Prerequisites: Satisfactory assessment score and/or minimum of 20 on ACT, or a grade of C or above and a passing grade on the post test in EBS 110 English are required for enrollment. High school students should have senior standing to enroll in ENG 101 Composition I.*

ENG 120   Composition II   3 Cr Hrs
Through a study of poetry, short story, drama and essays as literary forms, this course furthers students' writing skills This course also improves research techniques through writing an in-depth research essay in Modern Language Association (MLA) style. It emphasizes accuracy and fluency in expressing sound ideas in class discussions, assignments and essays. *Prerequisite: Completion of ENG 101 Composition I with a grade of C or above. High school students should have senior standing to enroll in ENG 120.*

ENT 110   Introduction to Entrepreneurship   3 Cr Hrs
Familiarizes students with the world of small business. Students are introduced to the concepts needed to seek out business opportunities as well as the tools needed to evaluate successful ventures. Considerable attention is given to the concepts of planning, financing and marketing new businesses.

GRA 019   Medication Aide Update   0 Cr Hr
Provides the continuing education required every two years by the Kansas Department of Health and Environment for renewal of the medication aide certificate. *Prerequisites: GRA 101 Certified Nurse Aide and GRA 119 Medication Aide.*

GRA 101   Home Health Aide   2 Cr Hrs
Prepares the certified nurse aide (CNA) to care for clients in community and home settings. Graduates may take the Kansas certification examination to become a home health aide (HHA). *Prerequisite: GRA 101 Certified Nurse Aide or Kansas Certified Nursing Aide certification.*

INT 100   Accessories   1 Cr Hr
An introduction to decorative accessories that focuses on the components of display for effective visual presentation. This course utilizes the principles and techniques that are common to display work in interiors and various businesses. The main emphasis is on design and color principals, hangers and materials used for arrangement and display and safety issues.

MTH 101   Intermediate Algebra   3 Cr Hrs
Covers simplifying algebraic expressions; solving equations and word problems involving linear and quadratic polynomials, rational expressions, rational exponents and radicals; and graphing linear and quadratic functions. This course requires that students furnish their own TI-83 or TI-83 PLUS graphing calculator and purchase specific online course software. *Prerequisites: Minimum grade of C in EBS 115 Pre-Algebra or satisfactory course placement assessment scores. This course does not count toward AS, AA, AGS or AAS degrees to fulfill a math requirement.*

MTH 112   College Algebra   3 Cr Hrs
An introduction of algebraic functions and some transcendental functions with application in business and life and natural and social sciences. Topics include solving equations, zeros, rational functions, matrices, exponentials and logarithms and systems. Additional topics are included as time permits. This course requires that students furnish their own TI-83 or TI-83 PLUS graphing calculator and purchase specific online course software. *Prerequisites: A minimum grade of C in MTH 101 Intermediate Algebra or MTH 102 Intermediate Algebra with Review or satisfactory course placement assessment or 21 ACT math score.*

MTH 113   Trigonometry   3 Cr Hrs
Covers trigonometric functions using the unit circle and right angle trigonometry, graphing applications, analytic trigonometry, vectors, trigonometric complex number applications, parametric and polar equations. This course requires that students furnish their own TI-83 or TI-83PLUS graphing calculator and purchase specific online course software. *Prerequisites: Minimum grade of C in MTH 111 College Algebra with Review or MTH 112 College Algebra or 23 ACT math score.*

PED 110   Lifetime Fitness   1 Cr Hr
Exposes students to facts about, and experiences in, dealing with, motor, physical, physiological, psychological and nutritional aspects of the human being. The course outlines the responsibility to maintain fitness during a life span.

PHL 110   Ethics   3 Cr Hrs
A practical approach to recognizing, understanding and solving ethical problems confronting individuals in today's society. Basic concepts of applied ethical theories in moral philosophy and reasoning are examined using critical-thinking and responsible decision-making skills.

PHS 110   Physical Science   5 Cr Hrs
A non-technical course intended for students who are majoring in fields other than science. The application of scientific knowledge to daily life activities is emphasized by examining the fundamental principles in physics, chemistry, geology and astronomy utilizing the scientific method.

PNR 111   Principles of Nutrition   3 Cr Hrs
Presents basic principles of nutritional needs and application of these principles in the maintenance and restoration of health. Emphasis is placed on the essential nutrients and how they may be obtained in both normal and therapeutic diets. *Prerequisite: Course must be taken prior to admission into the Practical Nurse program.*

PSY 101   General Psychology   3 Cr Hrs
Explores the principal proponents of psychological theories by using accepted methods of scientific inquiry. Topics include behavior, learning theories, cognitive processes, intelligence, sensation, motivation, maturation, personality, psychological disorders and their treatments/therapies.

PSY 120   Developmental Psychology   3 Cr Hrs
A study of individual development from conception through death. This includes the general areas of biological, physical, cognitive, social, emotional and personality development at each stage of life. *Prerequisite: PSY 101 General Psychology.*

PSY 130   Human Growth & Development   3 Cr Hrs
Provides an overview of the theories, methods and content in the field of child development. The framework for this course has four major dimensions: a) basic theoretical and research issues; b) development from an interdisciplinary perspective; c) interaction of life experiences and human change; d) applying this understanding to the real world.

SGT 101   Introduction to Surgical Technology   2 Cr Hrs
Introduces the roles and functions of surgical team members and operating room organization. Presents legal and ethical issues, division of duties, hospital organization and management, medical terminology, basic communication skills and interpersonal relationships. *Prerequisite: Admission to Surgical Technology program.*

SOC 101   Principles of Sociology   3 Cr Hrs
Introduces students to the science of society and its approach to human social life. Students learn how sociologists conduct research and the basic concepts and theories they use to explain the social world.

SPH 101   Public Speaking   3 Cr Hrs
Fundamental basic to all good private and public speaking experiences; elements in voice production and improvement, bodily movement, confidence, poise, understanding of all types of public speeches. Required of all transfer curricula.

Calendar and Notes

Calendar and Notes

WATC 2010–2011 Academic Calendar

July 2010
Su	M	Tu	W	Th	F	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

July
- 5 Independence Day (College Closed)
- 6 Second Four Week Classes Start
- 30 Summer Session Ends

February 2011
Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28					

February
- 14 Late Eight Week Classes Begin

August 2010
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

August
- 2 Pre-Session Classes Begin
- 6 Adjunct Faculty In-Service
- 10 New Student Orientation
- 11-12 Faculty In-Service
- 16 Fall Session Begins
- 30 ATC Classes Begin

March 2011
Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

March
- 7 Last Day to Withdraw with a 'W' from First Eight Week Classes
- 14-19 Spring Break
- 21 End of First Eight Week Classes
- 22 Second Eight Week Classes Begin
- 31 Last Day to Withdraw with a 'W' from Late Eight Week Classes

September 2010
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

September
- 6 Labor Day (College Closed)
- 13 Late Eight Week Classes Begin
- 30 All College In-Service (No Classes)

April 2011
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

April
- 14 End of Late Eight Classes
- 18 Last Day to Withdraw with a 'W' from 16-week Classes

October 2010
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

October
- 1 Last Day to Withdraw with a 'W' from First Eight Week Classes
- 15 End of First Eight Week Classes
- 18 Second Eight Week Classes Begin
- 22 College Closed
- 26 Last Day to Withdraw with a 'W' from Late Eight Week Classes

May 2011
Su	M	Tu	W	Th	F	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

May
- 2 ATC Classes Begin
- 2 Last Day to Withdraw with a 'W' from Second Eight Week Classes
- 10-16 Finals
- 18 All College In-Service (No Classes)
- 20 Commencement
- 30 Memorial Day (College Closed)

November 2010
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

November
- 9 End of Late Eight Classes
- 19 Last Day to Withdraw with a 'W' from 16-week Classes
- 22-24 Fall Break (College Closed)
- 25-28 Thanksgiving Holiday (College Closed)

June 2011
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

June
- 6 Summer Session Begins
- 24 Last Day to Withdraw with a 'W' from First Four Week Classes

December 2010
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

December
- 3 Last Day to Withdraw with a 'W' from Second Eight Week Classes
- 13-18 Finals
- 20-31 Faculty Leave
- 20-24 Winter Break (College Closed)
- 31 New Year's Holiday (College Closed)

July 2011
Su	M	Tu	W	Th	F	Sa
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

July
- 1 End of Four Week Classes
- 4 Independence Day (closed)
- 5 Four Week Classes Begin
- 18 Last Day to Withdraw with a 'W' from Eight Week Summer Classes
- 25 Last Day to Withdraw with a 'W' from Second Four Week Classes

January 2011
Su	M	Tu	W	Th	F	Sa
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

January
- 3 Pre-Session Classes Begin
- 5 ATC Classes Begin
- 12 Faculty In-Service
- 14 Adjunct Faculty In-Service
- 17 Martin Luther King Jr. (College Closed)
- 18 Spring Session Begins

August 2011
Su	M	Tu	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

August
- 1 Summer Session Ends
- 5 Adjunct Faculty In-Service
- 10-11 Faculty In-Service
- 15 Fall Session Begins

Phone Numbers

Name	Phone Number