









2019 – 2020 DRAKE STATE CATALOG VOLUME 1 Effective August 2019



3421 Meridian Street N | Huntsville, AL 35811 256-539-8161 | 888-413-7253

# 2019-2020 Catalog

Effective August 2019

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Authorized by the Alabama Community College System Board of Trustees

Approved by the Alabama Community College System

Accredited by the

Southern Association of Colleges and Schools Commission on Colleges

1866 Southern Lane | Decatur, GA 30033

404-679-4500

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The College reserves the right to make changes as required in course offerings, curricula, academic policies and other rules and regulations affecting students, as determined by the College and approved by the Alabama Community College System Board of Trustees. These changes will govern all enrolled.

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## **EQUAL OPPORTUNITY IN EDUCATION AND EMPLOYMENT**

J.F. Drake State Community and Technical College is committed to equal opportunities in education and employment. Drake State is an equal opportunity employer. It is the official policy of the Alabama Community College System, that no person shall, on the grounds of race, color, disability, gender, religion, creed, national origin, or age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program, activity, or employment.

Drake State complies with nondiscriminatory regulations under Title VII of the Civil Rights Act of 1964, Title IX Educational Amendment of 1972, which prohibits discrimination based on sex; Title IX, Section 106.8, which prohibits sexual harassment; Section 504 of the Rehabilitation Act of 1973, which prohibits violations of the rights of the disabled; and Title VI, which prohibits discrimination based on race, color, or national origin, and the Americans with Disabilities Act (ADA) of 1990, which covers policies for public accommodations for disabled individuals.

Individuals who believe they have been subjected to discrimination prohibited by Titles VI, VII, IX, Section 504, may contact the Dean of Student Service, who is the College's Title IX Coordinator.

#### **Title IX Coordinator**

**Dean of Student Services** 

3421 Meridian Street, North

Huntsville, AL 35811

Phone: (256) 551-1711

Fax: (256) 713-9580

## THE PRESIDENT'S MESSAGE



Welcome to Drake State. You've made a great choice. Since 1961, Drake State has provided high-quality, affordable, post-secondary educational opportunities to the Huntsville community. Thousands of students have been enriched by the value of a Drake State education. Our faculty and staff are committed to your success. The moment you begin at Drake State, you become a part of our family where our philosophy is "Your Future – Our Focus".

Whether your journey starts as a dual-enrolled high school student, transfer student, career and technical education student, adult learner, or a person seeking skills for a career transition, exploring new career opportunities or looking to learn

something new, we are prepared to serve you and meet your needs.

It is our goal to assist you with attaining a certificate and/or degree to advance your personal success and career advancement.

Thank you for joining the Drake State family and know that from this day forward, your journey of success includes us.

Patricia G. Sims, Ed.D. President

# **Alabama Community College System Board of Trustees**

Governor Kay Ivey

## **Alabama Community College System**

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Mr. Blake McAnally

## **EX-OFFICIO**

Mr. Jeffery Newman

# GENERAL INFORMATION

## MISSION STATEMENT

Drake State, a student-centered two-year public institution, offers flexible and affordable university-transfer and technical degrees, certificates, adult and continuing education, and customized workforce training to fulfill the diverse needs of the community.

Approved by the Alabama Community College System Board of Trustees - July 22, 2015

## **ABOUT THE CATALOG**

Drake State publishes and makes available the Academic Calendar, grading policies, and refund policies to students and the general public. The College publishes the Catalog and Student Handbook on the College website and in print. The Academic Calendar is published within the Catalog and Student Handbook and is also published online and in print.

The institution's grading policies are published in the Catalog. These policies include an explanation of the College's grading system and procedures for course forgiveness, and academic bankruptcy. The Catalog also publishes grading policies specific to the Licensed Practical Nursing Program. Each instructor distributes the grading policy in the course syllabus to every student at the beginning of each semester which includes methods of evaluation and grading policies specific to the course and instructor. These policies adhere to those published in the Catalog. The refund policies are published in the Catalog.

The College offers courses that are online or hybrid in format. Students taking online classes can access the Catalog online via the College website. Students can also access information concerning the Academic Calendar, grading policies, and refund policies on the College.

# 2019-2020 ACADEMIC CALENDAR

## **FALL SEMESTER 2019**

Manlayeak Hayna f	on Chaff and Familia		
Workweek Hours fo	Annual Control of the	February 12	Last Day to receive a "\
August 13-15	7:30AM to 6:30PM	March 2	Last Day of Mini-Term
August 16	7:30AM to 4:30PM	Feb 26 –March 3	Midterm Exams
August 19	7:30AM to 6:30PM	March 3	Grades due in Banner l
August 12	Lacel Brafaccional Development	March 5	Mini-Term II Begins/La
August 12	Local Professional Development Day (COLLEGE CLOSED)	March 6	Summer and Fall 2020
A			Term/Mini Term I/Min
August 13-14	Duty Days  New Student Orientation/	March 16	60% Completion Date
		March 30- April 3	SPRING BREAK (FACUL
A.,	Regular Registration for Fall 2019	April 2-3	Local Holiday (COLLEG
August 14	Tuition and Fees Due by 4:00 PM	April 15	Last Day to Receive a "
August 15	Classes Begin – Day, Evening, and Mini-Term I		Term II
August 15-16 & 19	Late Registration – Drop/Add	April 28- May 4	Final Exams
August 17	Bootcamp 9:00am – 1:00pm	May 4	Senior Grades Due by
August 19	Tuition and Fees Due by 4:00 PM		Last Day of Full-Term/
September 2	LABOR DAY (COLLEGE CLOSED)	May 5-6	Faculty Duty Days (NO
September 18	Last Day to receive a "W" Mini-Term I	May 6	Grades Due in Banner
Sept 30- Oct 6	Midterm Exams		Term II
October 7	Last Day of Mini-Term I	May 7	Faculty Duty Day/Grad
October 8	Grades due in Banner by 11AM – Mini-Term I	May 8	Faculty Duty Day
October 10	Mini-Term II Begins/Late Registration	May 11-15	Faculty Off/Non-Instru
	(Drop/Add)		CLASSES)
October 17	Spring 2020 Registration Begins		
	(Full-term/Mini-Term I/Mini-Term II)	SUMMER SEI	MESTER 2020
October 21	60% Completion Date for Title IV	SOMMEN SE	VILOTEN ZOZO
November 11	VETERAN'S DAY (COLLEGE CLOSED)	Workweek Hou	rs for Staff and Faculty
November 13	Last Day to Receive a "W" Full Term and Mini-	May 20-21	7:30AM to 6:30PM
CHOICE OF TAXABLE PROPERTY.	Term II	May 22	7:30AM to 4:30PM
November 25-26	State Professional	May 26	7:30AM to 6:30PM
	Development (NO CLASSES)	Way 20	7130AM to 01301 M
November 27	Faculty Duty Day (NO CLASSES)	May 18-22	Faculty Duty Days (NO
November 28-29	THANKSGIVING (COLLEGE CLOSED)	May 21- 22	New Student Orientati
December 4-11	Final Exams	1114) 22 22	Summer 2020
December 11	Last Day of Full-Term/Mini-Term II	May 22	Tuition and Fees Due b
December 12	Grades due in Banner by 2PM	May 25	MEMORIAL DAY OBSE
December 13	Faculty/Staff Professional Development	May 26	Classes Begin – Day, Ev
December 12-17	Faculty/Staff Duty Days (NO CLASSES)	May 26-27	Late Registration – Dro
D 1 40	E DOMESTIC LANGE TO THE PARTY OF THE PARTY O	IVIGY LU-LI	Lace Negistration - Die

Faculty Off/Non-Instructional Duty Days (NO

CHRISTMAS HOLIDAY (COLLEGE CLOSED)

## **SPRING SEMESTER 2020**

December 18

December 19 - 31

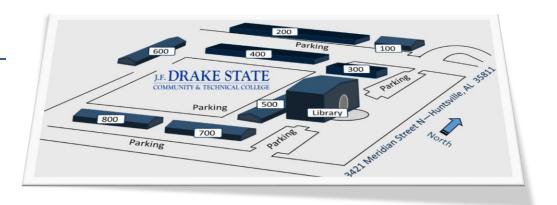
Workweek Hours	for Staff and Faculty	
January 3	7:30AM to 11:30AM	
January 6-9	7:30AM to 6:30PM	
January 10	7:30AM to 4:30PM	
January 1	NEW YEARS DAY Observed (COLLEGE CLOSED)	
January 2	Local Holiday (COLLEGE CLOSED)	
January 3	Duty Day	
January 4	Bootcamp 9:00am-1pm	
January 6-7	New Student Orientation/Regular	
	Registration for Spring 2020	
January 7	Tuition and Fees Due Date by 4:00pm	
January 8	Classes Begin - Day, Evening, and Mini-Term I	
January 8-10	Late Registration - Drop/Add	
January 10	Tuition and Fees Due by 4:00 PM	
January 20	DR. M.L. KING, JR. BIRTHDAY	
	(COLLEGE CLOSED)	

CLASSES)

February 12	Last Day to receive a "W" Mini-Term I
March 2	Last Day of Mini-Term I
Feb 26 -March 3	Midterm Exams
March 3	Grades due in Banner by 11AM Mini-Term I
March 5	Mini-Term II Begins/Late Registration (Drop/Add)
March 6	Summer and Fall 2020 Registration Begins (Full
	Term/Mini Term I/Mini-Term II)
March 16	60% Completion Date for Title IV
March 30- April 3	SPRING BREAK (FACULTY AND STUDENTS)
April 2-3	Local Holiday (COLLEGE CLOSED)
April 15	Last Day to Receive a "W" Full Term and Mini-
	Term II
April 28- May 4	Final Exams
May 4	Senior Grades Due by 11AM
	Last Day of Full-Term/Mini-Term II
May 5-6	Faculty Duty Days (NO CLASSES)
May 6	Grades Due in Banner by 2PM Full Term & Mini-
	Term II
May 7	Faculty Duty Day/Graduation
May 8	Faculty Duty Day
May 11-15	Faculty Off/Non-Instructional Duty Days (NO CLASSES)

# EMESTER 2020

ITIGY ZZ	7.30AN 10 4.30N
May 26	7:30AM to 6:30PM
and the same of the same	Later to Control and Control a
May 18-22	Faculty Duty Days (NO CLASSES)
May 21- 22	New Student Orientation/Regular Registration for
	Summer 2020
May 22	Tuition and Fees Due by 4:00pm
May 25	MEMORIAL DAY OBSERVANCE (COLLEGE CLOSED)
May 26	Classes Begin – Day, Evening, and Mini-Term I
May 26-27	Late Registration – Drop/Add
May 27	Tuition and Fees Due by 4:00 PM
June 16	Last Day to receive a "W" Mini-Term I
June 26	Last Day of Mini-Term I
June 29	Grades due in Banner by 11AM -
	Mini-Term I
June 30	Mini-Term II Begins/Late Registration (Drop/Add)
July 3	INDEPENDENCE DAY (COLLEGE CLOSED)
July 6	Spring 2021 Registration Begins
	(Full term/Mini-Term I/Mini-Term II)
July 8	60% Completion Date for Title IV
July 22	Last Day to Receive a "W" Full Term and Mini-
	Term II
July 29- Aug. 4	Final Exams
August 4	Last Day of Full-Term/Mini-Term II
August 5	Faculty Duty Day/Grades Due by 11AM (NO
	CLASSES)
August 6	Faculty Duty Day
August 7-11	Faculty Off/Non-Instructional Duty Days (NO
	CLASSES)



## **CAMPUS MAP**

#### **BUILDING 100**

**Nursing Assistant** 

Nursing

#### **BUILDING 200**

**Electrical Technology** 

**Engineering Design Technology** 

**Industrial Systems Technology** 

Machine Tool Technology

**Operations Department** 

Robotics

#### **BUILDING 300**

Cafetorium

Culinary Arts / Hospitality Management

## **BUILDING 400**

**Automotive Technology** 

Robotic Welding and Plasma Cutter

Welding Technology

## **BUILDING 500**

Accounting Technology

**Business Office** 

Computer Information Systems Technology

**Human Resources** 

Information Technology (IT)

Medical Assisting Technology

Office Systems Technology

#### **BUILDING 600**

Salon/Spa Management

Student Center

## **BUILDING 700**

Admissions

Alabama National Guard

**Career Services** 

**Dual Enrollment** 

Financial Aid

Liberal Arts / Gen Studies

**QEP Math Labs** 

Student Success Center

**Testing and Assessment Center** 

**TRiO Program Office** 

**Veterans Resource Center** 

## **BUILDING 800**

**Adult Education** 

Biology

Heating & Air Conditioning Technology

Liberal Arts / Gen Studies

#### S.C. O'NEAL SR. LIBRARY & TECHNOLOGY CENTER

Associate Dean of Instruction

Director of Institutional Effectiveness/Title III

Dean of Instruction

**Dean of Student Services** 

Library

President's Office

**Public Relations** 



DRAKE STATE IS LOCATED IN DISTRICT 5

#### **INSTITUTIONAL HISTORY**

Drake State, located in Huntsville, Alabama, was established in 1961 and opened its doors on September 4, 1962, as Huntsville State Vocational Technical

School. The institution was constructed on 30 acres of land deeded by Alabama Agricultural and Mechanical University to the Alabama State Board of Education. In 1966, the name was changed to J. F. Drake State Technical Trade School in honor of the late Dr. Joseph Fanning Drake, a former president of Alabama Agricultural and Mechanical University who served for more than 35 years. On August 22, 1973, the school was given technical college status by the Alabama State Board of Education and assumed the name J. F. Drake State Technical College and was authorized by the Board to offer the Associate in Applied Technology (AAT) degree.

The College received regional accreditation through the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) effective January 2012. The College was granted comprehensive community college status, making it the first and only comprehensive community and technical college in Alabama. In July 2013, the name changed to J. F. Drake State Community and Technical College, reflecting its new status. Drake State offers the Associate in Applied Science (AAS), Associate in Arts (AA) and Associate in Science (AS) degrees, as well as certificates. Students can seamlessly transfer general education courses to other regionally accredited institutions of higher education. Drake State also pioneered articulation agreements in technical disciplines with local universities to enable students to transfer many of their technical courses into baccalaureate programs.

From its inception, Drake State has been committed to training individuals for employment in vocational, technical, and industrial pursuits to support Huntsville's growing economy. The College aims to produce an effective, participatory citizenship with not only economic potential, but civic and social commitment as well.

#### **Presidents**

 Mr. S. C. O'Neal, Sr.
 1961 - 1983

 Dr. Johnny L. Harris
 1983 - 2000

 Dr. Helen T. McAlpine
 2000 - 2016

 Dr. Patricia G. Sims
 2018 - Present

## **ACCREDITATION**

Drake State is member of the Alabama Community College System.

Drake State is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award Associate Degrees and Certificates. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Drake State.

The College's automotive technology program is recognized by the National Institute for Automotive Service Excellence, Automotive Service Excellence Education Foundation formerly NATEF, and is an ASE Master Certified Program.

Drake State's heating, ventilation, air conditioning and refrigeration (HVACR) program is nationally accredited through HVAC Excellence, and the machine tool program is accredited through the National Institute for Metalworking Skills (NIMS).

This nursing education program is a candidate for accreditation by the Accreditation Commission for Education in Nursing.

Accreditation Commission for Education in Nursing (ACEN)
3343 Peachtree Road NE, Suite 850
Atlanta, GA 30326 or 404-975-5000
www.acenursing.org



# GENERAL POLICIES



## **ADMISSIONS**

# **Admissions Policy Statement**

It shall be the policy of Drake State to admit all students who meet the established admission criteria. Admission decisions will be made without regard to the applicant's race, color, disability, sex, religion, creed, national origin, or age.

## Academic Advisement

Potential students are encouraged to meet with the academic completion specialist and various program faculty prior to deciding on a particular program of study. The college has a large assortment of media on different careers for students who are undecided on a program of study. Once a student decides on a program of study, the appropriate academic completion specialist and faculty advisor of the chosen program becomes the student's academic advisors.

## Admission of First-Time College Students

An applicant who has not previously attended any (regionally accredited) postsecondary institution will be designated a first-time college student or a native student. To be eligible for admission, a first-time college student must meet one of the following criteria:

- hold an Alabama High School Diploma,
- a high school diploma of another state equivalent to an Alabama High School Diploma
- an equivalent diploma issued by a non-public and/or non-regionally accredited high school,
- or a GED Certificate issued by the appropriate state education agency.

A student who meets one of the above criteria shall be classified as "degree-eligible."

# **Unconditional Admission of First-Time College Students**

For unconditional admission, applicants must complete an online application for admission and provide the following:

- An official high school or GED transcript
- One primary form of photo identification
- In-state residency certification
- ACCUPLACER assessment or proof of minimum required scores on the ACT or SAT.

# Conditional Admission of First-Time College Students

For conditional admission, applicants must complete an online application for admission and provide the following:

- An unofficial high school or GED transcript. Failure to provide all official transcripts by the end of the first semester will prevent a student from future registration.
- One primary form of photo identification
- In-state residency certification
- ACCUPLACER assessment or proof of minimum required scores on the ACT or SAT

## **Admission of Transient Students**

A student who attended another postsecondary institution and who seeks credit for transfer to that parent institution may be admitted to the College as a transient student. The student must submit an online application for admission, one primary form of photo identification, in-state residency certification, and an official letter from the institution which certifies that the credit earned at the college will be accepted as a part of the student's academic program. The student is not required to file transcripts of previously earned credits at other postsecondary institutions.

## Admission of Transfer Students

#### **Unconditional Admission of Transfer Students**

An applicant who has previously attended another (regionally accredited) postsecondary institution will be required to complete an online application for admission and provide the following:

- Official transcripts of all work attempted at all said institutions. Students who have achieved a
  minimum of a Baccalaureate degree are only required to submit a transcript from the granting
  institution.
- An official high school or GED transcript.
- One primary form of photo identification
- In-state residency certification
- ACCUPLACER assessment or proof of minimum required scores on the ACT or SAT, or certain exemptions as stated in the Assessment and Placement policy.
- \* EXCEPTION: Veteran Students— All official transcripts including military transcripts must be submitted prior to admission to the institution. Students receiving Veteran's education benefits must have all prior military and civilian training sent to and evaluated by the Office of Admissions prior to any enrollment certifications being submitted to the Department of Veterans Affairs.

<sup>\*\*</sup>Students who are conditionally admitted are not eligible to receive federal or institutional aid.

#### **Conditional Admission of Transfer Students**

An applicant who has previously attended another (regionally accredited) postsecondary institution will be required to complete an online application for admission and provide the following:

- Unofficial transcripts of work attempted at all institutions. Students who have achieved a
  minimum of a Baccalaureate degree are only required to submit a transcript from the granting
  institution. Failure to provide all official transcript by the end of the first semester will
  prevent a student from future registration.
- An unofficial high school or GED transcript.
- One primary form of photo identification
- In-state residency certification.
- ACCUPLACER assessment or proof of minimum required scores on the ACT or SAT, or certain exemptions as stated in the Assessment and Placement policy.

\* EXCEPTION: Veteran Students— All official transcripts including military transcripts must be submitted prior to admission to the institution.

Students receiving Veteran's education benefits must have all prior military and civilian training sent to and evaluated by the Office of Admissions prior to any enrollment certifications being submitted to the Department of Veterans Affairs.

## Initial Academic Status of Transfer Students

A transfer student whose cumulative grade point average at the transfer institution(s) is 2.0 or above on a 4.0 scale will be admitted on **Clear** academic status. A transfer student whose cumulative grade point average at the transfer institution(s) is less than 2.0 on a 4.0 scale will be admitted on **Academic Probation**.

## Admission of International Students

Prior to being issued an I-20 form, international students are required to complete an application for admission and provide the following:

#### **International First-Time Students**

- A. A certified original translated and evaluated copy of the student's high school transcript.
- B. A current and valid passport or other official documentation to verify lawful presence.
- C. A current photo (passport-size, preferred).
- D. A minimum score of 5.5 on the International English Language Testing System (IELTS), a total score of 61 on the Internet-based Test of English as a Foreign Language (TOEFL), a total score of 173 on the computer-based TOEFL, or a total score of 500 on the paper-based TOEFL.
- E. A signed notarized statement verifying adequate financial support.
- F. Payment of I-901 Student and Exchange Visitor Information System (SEVIS) Fee.
- G. A medical health history with proof of vaccinations.
- H. Documentation demonstrating adequate health and life insurance, including repatriation, which must be maintained during all periods of enrollment.

<sup>\*\*</sup>Students who are conditionally admitted are not eligible to receive federal or institutional aid.

## **International Transfer Students**

- A. A certified original translated and evaluated copy of the student's high school transcript verifying completion status and a translated and evaluated transcript from each college attended. Students who have achieved a minimum of a Baccalaureate degree are only required to submit a transcript from the degree granting institution.
- B. A signed notarized statement verifying financial support.
- C. Copy of student's current Form I-20.
- D. Copy of student's Visa and Passport.
- E. A medical health history with proof of vaccinations.
- F. Documentation demonstrating adequate health and life insurance, including repatriation, which must be maintained during all periods of enrollment.

## Re-Enrollment of Students

A student who has not maintained continuous enrollment (i.e., has not been enrolled for three or more consecutive semesters, or has graduated from the college) and wishes to re-enroll must apply for reentry as a returning student.

If continuous enrollment is not maintained, graduation requirements may change.

## **Audit Student**

An audit student is an applicant who wishes to enroll for classes only on an audit basis. The applicant must meet college admissions criteria, which consist of a completed online admission application and high school transcript or GED certificate for a first-time student, or a completed admission application and official transcripts from all colleges attended for a transfer student and all other required documentation.

An applicant who has a baccalaureate degree will need to submit only the transcript from the institution awarding the degree. Audit students must abide by class attendance policy and all standard course requirements, excluding the completing of course examinations. The cost of auditing a course is the same as enrolling for credit.

## Senior Citizens

Persons sixty (60) years of age or older may be eligible for a tuition waiver if they qualify for the Senior Adult Scholarship Program. Applicants must meet the following conditions:

- A. Comply with the college admission standards as noted earlier in this catalog under Admission of First-time College Students, Admission of Transfer Students or Former Students applying for Readmission.
- B. Be an Alabama resident.
- C. Be sixty (60) years of age or older.
- D. Enroll for credit; noncredit enrollment is not eligible for tuition waiver.

The student is responsible for any fees or other charges applied to the general student body. Senior citizens granted a tuition waiver under the Senior Adult Scholarship Program may receive the tuition waiver only one time per course. Any time a senior citizen repeats a course the student is responsible not only for fees but also for tuition.

## General Principles for Transfer of Credit

## **Equivalent Transfer Credits**

Drake State reserves the right to accept or deny course work presented for transfer credit. Typically, all course work from regionally accredited institutions will be accepted as fair equivalent courses at Drake State provided the college has equivalent courses at all appropriate levels. Courses not having fair equivalents at Drake State may or may not be accepted. For additional information, students may contact the Office of Admissions.

Any student who has previously attended another regionally accredited postsecondary institution is considered a transfer student and is required to furnish official transcripts of ALL work attempted at each institution. Transcripts are evaluated by the Office of Admissions with appropriate transfer credits placed on the Drake State transcript including current academic standing. Accepted coursework will be listed in the transfer category with credit hours earned awarded. General principles for the transfer of credit for degree eligible students and the standards for academic progress of transfer students are used. Students can also utilize the Statewide Transfer and Articulation Reporting System (STARS) website for transfer credit information.

Coursework accepted as transfer work or credit toward an undergraduate program of study must represent collegiate level coursework relevant to course content and level of instruction equivalent to those of students enrolled in the Drake State undergraduate programs. In assessing and documenting equivalent learning and the awarding of credit, the college may use guides recognized or published by the American Council on Education, the American Association of Collegiate Registrars and Admissions Officers and the Alabama Community College System Uniform Course Directory.

All transfer work or credit earned from non-traditional sources awarded by Drake State allows students the opportunity to achieve their educational goals and supports the college's mission. As a member of the Alabama Community College System, Drake State assumes the responsibility for providing a quality education to all students.

A transfer student from a collegiate institution not accredited by the appropriate regional association may request an evaluation of transfer credits after completing 15 semester hours at Drake State with a cumulative GPA of 2.0 or above.

A transfer grade of "D" will only be accepted when the transfer student's cumulative GPA is 2.0 or above. If the student has a cumulative 2.0 or above, the "D" grade will be accepted the same as for native students. Credit may be extended based on a comprehensive evaluation of demonstrated and documented competencies and previous formal training.

## Credit for Life Experience and Noncredit Education

By policy of the Alabama Community College System, students may receive credit for previous work experience or non-credit continuing education, such as professional development workshops or industry-sanctioned training, whether provided by the college or other training providers. Allowable credit is determined by the program instructor and the Office of Admissions, with the approval of the Dean of Instruction.

Credit for academic transfer courses can be awarded by examination or nationally recognized guidelines (such as AP, CLEP, ACT/PEP, DANTES, Challenge Exams, ACE PONSI/CREDIT, or ACE/MILITARY). Credit for non-transfer technical courses may be awarded through examination, portfolio evaluation, and demonstrated mastery of the competencies taught in the courses for which credit is to be given.

Credit awarded in this manner is referred to as "experiential credit," awarded through non-traditional means. A student may not be awarded experiential credit in excess of 25% of the total requirement of

the program award being sought. Credits awarded in this manner do not count toward the requirement that a minimum of 25% of credits awarded in any program must be taken at the institution granting the award.

# Course Credit by Departmental Challenge Examination

Students may be awarded credit for documented competencies and formal training on challenge examinations.

## **Specialized Military Training**

The College adheres to policies prescribed by the Guide to the Evaluation of Educational Experiences in the Armed Services in granting credit for military course work.

## **Advanced Placement**

Students who have completed college level offered by high schools and have earned a score of 3 or higher on the AP Exam will receive credit.

## **Articulated Credit**

A planned process that allows a high school student enrolled in certain occupational/technical programs the opportunity to progress from secondary to postsecondary in a sequential manner of instruction. (Statewide Articulation.)

## Credit for Transfer

Any student who has previously attended another regionally accredited postsecondary institution is considered a transfer student and is required to furnish official transcripts of ALL work attempted at each institution. Transcripts are evaluated by the Office of Admissions with appropriate transfer credits placed on the Drake State transcript including current academic standing.

## CLEP – College Level Examination Program

Credit for CLEP subject examinations is granted based on 50th percentile scores with courses awarded for credit listed in the college catalog. Drake State is not currently a testing center for CLEP examinations, but will evaluate and accept credits for CLEP examinations for courses listed in the college catalog. Students will be responsible for scheduling and paying for CLEP examinations. For information on testing centers, examinations, fees and other details, please visit the College Board website <a href="https://clep.collegeboard.org/about-clep">https://clep.collegeboard.org/about-clep</a>

## **Admission of Nursing Students**

## Minimum admission standards for the Associate Degree Nursing Program

Because graduates of the ADN program must pass a licensure examination, separate policies and guidelines higher than the institutional standards have been established.

#### Admission Policies

Selection to the Associate Degree Nursing Program at Drake State is based on criteria set by the selection committee.

#### ADMISSION CRITERIA FOR NURSING PROGRAMS

Unconditional Admission to the college

- A minimum of 2.5 GPA on the last 24 hours of college courses completed OR
- A minimum of 2.5 high school GPA on students without prior college courses
- Receipt of completed application before published deadline
- ACT [composite] Score of 18 or higher
- Eligibility for ENG101, BI0201, and MTH100
- Meet the essential functions for nursing

Admission to the Associate Degree Nursing Program is competitive, and the number of students is limited by the number of faculty and clinical facilities available. <u>Meeting minimal requirements does not guarantee</u> acceptance.

In addition, the applicant must

- 1. Complete an application to Drake State
- 2. Submit official transcripts from all high schools and/or colleges attended.
- 3. Be able to provide his/her own transportation to clinical facilities.

Understand that admission to the nursing program is on a space-available basis and is based on a comparative evaluation of all test scores, transcripts, and application information.

## **Standards of Conduct**

The nursing student shall comply with legal, moral and legislative standards which determine unacceptable behavior of the nurse and which may be cause for denial of license to practice as a Nurse (registered and/or practical), in accordance with the Alabama Law Regulating practice of Nursing as stated below:

The Board may reprimand, fine, probate, suspend, revoke or otherwise discipline any registered nurse or licensed practical nurse upon proof that the person:

- Is guilty of fraud or deceit in procuring or attempting to procure a license, has been convicted of a felony offense, has been convicted of, or has entered a plea of guilt, regardless of court disposition, to a charged criminal act involving moral turpitude or of gross immorality that would tend to bring reproach upon the nursing profession. Such criminal acts include, but are not limited to, offenses involving drugs, theft, lewdness, sexual misconduct, abuse, violence, fraud, and/or any other conduct detrimental to the public's health, safety or welfare.
- Is unfit or incompetent due to the use of alcohol, or is addicted to the use of habit-forming
  drugs to such an extent as to render the registered nurse or licensed practical nurse unsafe or
  unreliable.
- Has been convicted of any violation of a federal or state law relating to controlled substances, including misdemeanor and felony offenses.
- Is guilty of unprofessional conduct of a character likely to deceive, defraud, or injure the public in matters pertaining to health.

FAILURE TO COMPLY WITH ANY OF THE ABOVE STIPULATIONS WHILE IN THE NURSING PROGRAM CONSTITUTES GROUNDS FOR DISMISSAL FROM THE PROGRAM

It is important for nursing students to know about the Alabama Board of Nursing's regulations on the review of candidates for eligibility for initial and continuing Licensure. There will be questions on the Application for Licensure as Nurse by Examination which ask "Have you ever been arrested or convicted of a criminal offense?" Application to write the examination may be denied on the basis of this review. Although these policies refer specifically to Alabama, other states have similar stipulations regarding Licensure.

## PROGRAM POLICIES

Because graduates of the Nursing Program must pass the national licensing examination upon completion of their program, separate policies and guidelines that may be higher than the institutional standards have been established. Each student will be given a copy of the appropriate policies on admission to the program.

Note: Although some separate policies and guidelines have been established for the Nursing program, nursing students must comply with the policies set forth in the College Catalog.

# **Nursing Programs Essential Functions**

The Alabama Community College System endorses the Americans with Disabilities Act. In accordance with College policy, when requested, reasonable accommodations may be provided for individuals with disabilities.

Physical, cognitive, psychomotor, affective and social abilities are required in unique combinations to provide safe and effective nursing care. The applicant/student must be able to meet the essential functions with or without reasonable accommodations throughout the program of learning. Admission, progression and graduation are contingent upon one's ability to demonstrate the essential functions delineated for the nursing programs with or without reasonable accommodations. The nursing programs and /or its affiliated clinical agencies may identify additional essential functions. The nursing programs reserve the right to amend the essential functions as deemed necessary.

In order to be admitted and to progress in the nursing program, one must possess a functional level of ability to perform the duties required of a nurse. Admission or progression may be denied if a student is unable to demonstrate the essential functions with or without reasonable accommodations.

The essential functions delineated are those deemed necessary by the Alabama Community College System nursing programs. No representation regarding industrial standards is implied. Similarly, any reasonable accommodations made will be determined and applied to the respective nursing program and may vary from reasonable accommodations made by healthcare employers.

The essential functions delineated below are necessary for nursing program admission, progression and graduation and for the provision of safe and effective nursing care. The essential functions include but are not limited to the ability to:

- 1. Observe and discern subtle changes in physical conditions and the environment
- 2. Visualize different color spectrums and color changes
- 3. Read fine print in varying levels of light
- 4. Read for prolonged periods of time
- 5. Read cursive writing

- 6. Read at varying distances
- 7. Read data/information displayed on monitors/equipment
- 8. Interpret monitoring devices
- 9. Distinguish muffled sounds heard through a stethoscope
- 10. Hear and discriminate high and low frequency sounds produced by the body and the environment
- 11. Effectively hear to communicate with others
- 12. Discern tremors, vibrations, pulses, textures, temperature, shapes, size, location and other physical characteristics
- 13. Detect body odors and odors in the environment
- 14. Verbally and in writing, engage in a two-way communication and interact effectively with others from a variety of social, emotional, cultural and intellectual backgrounds
- 15. Work effectively in groups
- 16. Work effectively independently
- 17. Effectively read, write and comprehend the English language
- 18. Consistently and dependably engage in the process of critical thinking in order to formulate and implement safe and ethical nursing decisions in a variety of health care settings
- 19. Demonstrate satisfactory performance on written examinations, including mathematical computations without a calculator
- 20. Satisfactorily achieve the program objectives
- 21. Handle small delicate equipment/objects without extraneous movement, contamination or destruction
- 22. Move, position, turn, transfer, assist with lifting, or lift and carry clients without injury to clients, self, or others
- 23. Maintain balance from any position
- 24. Stand on both legs
- 25. Coordinate hand/eye movements
- 26. Push/pull heavy objects without injury to client, self, or others
- 27. Stand, bend, walk and/or sit for 6-12 hours in a clinical setting, performing physical activities requiring energy without jeopardizing the safety of the client, self, or others
- 28. Walk without a cane, walker, or crutches
- 29. Function with hands free for nursing care and transporting items
- 30. Transport self and client without the use of electrical devices
- 31. Flex, abduct and rotate all joints freely
- 32. Respond rapidly to emergency situations
- 33. Maneuver in small areas
- 34. Perform daily care functions for the client
- 35. Coordinate fine and gross motor hand movements to provide safe effective nursing care
- 36. Calibrate/use equipment
- 37. Execute movement required to provide nursing care in all health care settings
- 38. Perform CPR and physical assessment
- 39. Operate a computer

- 40. Convey caring, respect, sensitivity, tact, compassion, empathy, tolerance and a healthy attitude toward others
- 41. Demonstrate a mentally healthy attitude that is age appropriate in relationship to the client
- 42. Handle multiple tasks concurrently
- 43. Perform safe, effective nursing care for clients in a caring context
- 44. Understand and follow the policies and procedures of the College and clinical agencies
- 45. Understand the consequences of violating the student code of conduct
- 46. Understand that posing a direct threat to others is unacceptable and subjects one to discipline
- 47. Meet qualifications for licensure by examination as stipulated by the Alabama Board of Nursing
- 48. Not to pose a threat to self or others
- 49. Function effectively in situations of uncertainty and stress inherent in providing nursing care
- 50. Adapt to changing environments and situations
- 51. Remain free of chemical dependency
- 52. Report promptly to clinicals and remain for 6-12 hours on the clinical unit
- 53. Provide nursing care in an appropriate time frame
- 54. Accepts responsibility, accountability, and ownership of one's actions
- 55. Seek supervision/consultation in a timely manner
- 56. Examine and modify one's own behavior when it interferes with nursing care or learning Upon admission, an individual who discloses a disability can request reasonable accommodations. Individuals will be asked to provide documentation of the disability in order to assist with the provision of appropriate reasonable accommodations. The respective College will provide reasonable accommodations but is not required to substantially alter the requirements or nature of the program or provide accommodations that inflict an undue burden on the respective College. In order to be admitted one must be able to perform all of the essential functions with or without reasonable accommodations. If an individual's health changes during the program of learning, so that the essential functions cannot be met with or without reasonable accommodations, the student will be withdrawn from the nursing program. The nursing faculty reserves the right at any time to require an additional medical examination at the student's expense in order to assist with the evaluation of the student's ability to perform the essential functions.

Requests for reasonable accommodations should be directed to the College Counselor.

## Alabama Community College System Concept Based Curriculum Progression Policy 2016

In order to progress in the nursing program, the student must:

- 1. Achieve a grade of C or better in all required general education and nursing courses.
- 2. Be acceptable by clinical agencies for clinical experiences.
- 3. Maintain ability to meet essential functions for nursing with or without reasonable accommodations.
- 4. Maintain program health requirements.
- 5. A total of two unsuccessful attempts in two separate semesters (D, F, or W) in the nursing program will result in dismissal from the program.

- 6. A student may be reinstated to the nursing program only one time. The reinstatement is not guaranteed due to limitations in clinical spaces. All nursing program admission standards must be met.
- 7. A student must have a 2.0 cumulative GPA at the current institution for reinstatement.
- 8. If a student has a documented extenuating circumstance that should be considered related to a withdrawal or failure, then this student may request a hearing before the Admissions Committee or other appropriate college committee for a decision on repeating a course or readmission to the program.
- 9. ADN students whose second unsuccessful attempt occurs in NUR 211 or 221 may apply for the Mobility program. These students must meet all admission requirements for Mobility, including a 2.5 cumulative GPA and valid Alabama LPN License.

## **Definitions**

Reinstatement: Students who have a withdrawal or failure in a nursing course and are eligible to return to that course will be considered for reinstatement to the program.

Readmission: Students not eligible for reinstatement may apply for program admission as a new student and must submit all application criteria. If accepted as a new student the student must take, or retake, all nursing program courses.

#### **Process for Reinstatement**

- 1. Students should first schedule an appointment with a nursing faculty/advisor to discuss eligibility for reinstatement.
- 2. Students must apply for reinstatement to the nursing program and submit the application with ACT test results (if applicable) and Letter of Intent by published deadlines.
- 3. Students must apply for readmission to the college if not currently enrolled. College readmission must be accomplished by published deadlines.
- 4. Update immunizations, CPR, drug testing, and background screening according to program policy.
- 5. Demonstrate competency in previous course(s) as required by the College's nursing program.

## **TRANSFER POLICY**

The transfer policy applies to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

## Criteria for Transfer

- 1. Must meet minimum admission standards for the nursing program.
- 2. Must possess a grade of C or better in all nursing program required courses taken at another institution and possess a minimum of a 2.0 cumulative GPA at time of transfer.
- 3. Dean/Director of previous nursing program must provide a letter of eligibility for progression in previous nursing program.
- 4. Must comply with all program policy requirements at accepting institution.

- 5. Complete at least 25% of the nursing program required courses for degree /certificate at the accepting institution.
- 6. Must meet acceptability criteria for placement at clinical agencies for clinical experience.
- 7. Acceptance of transfer students into nursing programs is limited by the number of faculty and clinical facilities available. Meeting minimal standards does not guarantee acceptance.

## TRANSIENT STUDENT POLICY

The transient policy applies only to students desiring to transfer between Alabama Community College System institutions. It does not apply to students wishing to transfer from other institutions.

## Criteria for Transient Status

- 1. Must meet minimum admission standards for the nursing program.
- 2. Must possess a grade of C or better in all nursing program required courses taken at another institution and possess a minimum of a 2.0 cumulative GPA.
- 3. Dean/Director of previous nursing program must provide a letter of eligibility for progression in previous nursing program.
- 4. A student enrolled at another institution must secure permission from that institution by submitting an application for admission to the College and a Transient Student Form completed by an official (Nursing Program Dean/Director) of the primary institution.
- 5. Transient students must complete a Transcript Request Form at the end of the term before a transcript will be issued to the primary institution.
- 6. Must comply with all program policy requirements at accepting institution.
- 7. Must meet acceptability criteria for placement at clinical agencies for clinical experience.
- 8. Acceptance of transient student into a nursing program is limited by the number of faculty and clinical facilities available. Meeting minimal standards does not guarantee acceptance.

## **Program Completion**

Students completing NUR112, 113, 114, and 115 and required academic courses will be awarded the Practical Nursing certificate. Students who have completed required academic courses and continue in the program through completion of NUR 211 and 221 will be awarded an Associate Degree in Applied Science. Students are responsible for meeting all the progression, and graduation requirements.

# PN Progression

Students completing NUR112, 113, 114, and 115 at an institution that only offers the PN program and who wish to transfer to another institution to complete the ADN degree, must meet the requirement for 25% course completion at college of graduation. Students who cannot meet the 25% course requirement must apply for Mobility and take the transition course to meet the 25% course requirement.

# Policies Related to Clinical Participation

Because participation in clinical settings is an integral part of the ADN program curriculum, each student is required to comply with all policies and procedures of the contracted clinical agencies. Therefore, each student is expected to uphold the contractual terms designated in these contracts prior to being admitted to a course with a clinical component. Clinical agencies reserve the right to amend a contract and ask for additional requirements to be met as deemed necessary to maintain the safety and welfare of the patient, student, and/or agency employee. Violation of nursing program or health care agency policies will result in dismissal from the program.

The following is a list of examples of clinical agency contractual policies that must be completed and on file prior to students being allowed to participate in clinical experiences.

- Proof that the student has undergone physical examination and is free from disease that may be transmitted to patients, families, and employees. This process includes having the Nursing Program's Health Form properly completed and signed by a Healthcare Provider, proof of twostep TB skin testing and follow-up, MMR, Varicella, Tetanus, and the Hepatitis B vaccination series.
- Proof of malpractice insurance coverage in amounts required by the agencies (copy of policy)
  and evidence that all students purchase the malpractice insurance prior to participating in their
  first clinical experience. The college therefore requires all students to purchase malpractice
  insurance when registering for the first semester. Malpractice insurance must be kept in force
  for the designated amount of coverage during the time a student is enrolled in the program.
- Agencies recommend students carry health insurance to cover the cost of medical care should a student become sick while at the clinical agency. The school or clinical agency does not provide free or discounted medical care to students participating in clinical experiences.
- Proof that students have undergone drug testing as precondition to beginning clinical experiences and that results indicate that the student is drug free.
- Proof of current BLS (Basic Life Support) certification at Health Care Provider level.
- Proof that students have been instructed in hospital policies including, but not limited to, issues
  of confidentiality (HIPAA), OSHA policies and procedures, Fire and Safety procedures, and
  documentation policies and procedures.
- Students are advised to have reliable transportation to arrive at the clinical site on time. Lack of
  reliable transportation may prohibit the student from maintaining clinical attendance and
  participation, which may result in failing from the program. If a student uses public
  transportation, please be aware that the clinicals start at 0630 or 0645, and make sure that
  public transportation that will get the student at least 15 -30 minutes before clinicals start, is
  available. If the schedules for public transportation do not permit the student to reach the
  clinical site on time, the student needs to seek alternative transportation.
- Criminal background checks are required prior to participation in clinical practice.

## OTHER PROGRAM POLICIES

The intensity of the nursing curriculum and the development of acceptable workplace habits mandate that the ADN program establish departmental policies regarding absences and tardiness, professional and ethical conduct, uniform dress code, and testing. Since nursing is a profession that demands high ethical and professional standards, success in nursing depends on the nurses' ability to provide safe, effective care while demonstrating acceptable workplace habits. Departmental policies promote the development of acceptable workplace habits and are consistently enforced. Attendance policies are included on each course syllabus and dress code and other policies related to clinical are included in the syllabi of courses with a clinical component.

## Professional and Ethical Conduct

The ADN student's behavior, appearance, and attitude shall reflect respect for and accountability to the nursing profession at all times. Inappropriate conduct in the classroom or clinical setting may result in termination from the nursing program. Students must not represent themselves as nursing students or engage in patient/client care as nursing students except when participating in an assigned, planned learning activity in a practice setting integral to the curriculum. A student who demonstrates evidence of unethical or inappropriate conduct or unsafe clinical practices will be terminated from the program and will not be eligible for readmission. This includes a student who receives a complaint from or is prohibited from participating in a clinical agency utilized by the program for clinical learning experiences, or who is withdrawn from the clinical agency due to unprofessional or unethical conduct. Some examples of unprofessional unethical conduct include, **but are not limited to**, the following:

- 1. Use of profanity;
- 2. Dishonesty—either by telling a falsehood or taking something that does not belong to you
- 3. Unprofessional verbal and/or physical confrontations
- 4. Display of inappropriate physical contact
- 5. Failure to follow college, ADN program, and/or clinical agency dress codes and other policies
- 6. Not following appropriate channels of command
- 7. Unlawful and/or unethical behavior
- 8. Breach of confidentiality
- 9. Falsifying documents
- 10. Unsafe clinical practices
- 11. Academic misconduct

## Academic Misconduct

It is considered cheating to receive or give unauthorized assistance in any test, assignment or other assessment that is done for course completion requirements. The work done by the student needs to be their own work, and not derived from other sources. If other sources are used by the student in order to complete an assignment, the source needs to be credited. Plagiarizing work done by others, including from online sources, is not permitted.

Test booklets and other assessment material used by the division remains the property of the division, and must be returned to the instructor upon completion of the test. Reproduction of the testing materials is not permitted.

A student found in violation of the academic misconduct policy will be recommended for dismissal from the program, and will not be eligible to re-enroll.

## **Academic Caution**

Students who are making unsatisfactory progress in a unit/course of study are counseled and placed on academic caution status until the end of the unit/course. If by the end of that unit/course, the student's averaged grade is below 75, he/she must repeat that unit/course of study before program completion.

## **Examinations and Assessments**

Students who are absent on the day a test is given will be allowed to take a "Make-up" test at the discretion of the instructor. Students are required to make arrangements with the instructor to take "make-up" tests their first day back in class. All make-up tests are given either before or after the class period. Students will not be allowed to make-up tests during class hours. Please refer to the individual course syllabi for specific testing policies for each course.

## Comprehensive Assessment

Comprehensive Assessment (CA) examinations will be administered prior to or in place of the final examination for each nursing course. The CA will be created by an outside agency. The examinations will be online and proctored.

## NURSING DRESS CODE: STUDENT UNIFORM

The student dress code has been developed to allow the nursing program to consistently put forth a professional appearance. At all times students, whether in a clinical agency on clinical assignments or in any way representing the college, must be in compliance with the standards of attire established by the specific agency or the College. Faculty members of the College have the responsibility to interpret compliance with the dress code and to assure conformance with the standards.

Students must wear the official school uniform. **No deviations in style or color will be permitted.** The nursing instructors will specify the color and style of the uniform. Students will also adhere to guidelines about hair, nails, makeup, body art and other guidelines as specified by the faculty.

## NURSING STUDENT DRUG SCREENING

As stipulated by health care agencies with which Drake State contracts for clinical experience, students must abide by the policies established by these agencies relative to drug screening and any subsequent revisions to these policies in order to participate in clinical experiences at the agency. This includes annual drug screening and subsequent screenings should the student be perceived to exhibit behaviors indicative of substance abuse during a clinical experience. Fees for all drug and alcohol screening must be paid by the students.

## I. Pre-Clinical Screening

- A. All currently enrolled students will receive notice of drug screening guidelines prior to the beginning of the clinical laboratory rotation. All other students will receive notice of the drug screening guidelines prior to admission to the nursing program.
- B. All currently enrolled students, and all students accepted for admission into the nursing program will be required to complete a consent form for drug screening as a condition for admission or readmission to the nursing program.
- C. Drug screening will be scheduled and conducted by a drug testing company coordinated by the Health Sciences Division. A fee will be assessed.
- D. Failure to complete the drug and alcohol screening as required by clinical agencies will prohibit the student from completing the clinical component of required nursing courses.
- E. Results of drug screening will be sent to the chairperson of the Health Sciences Division. The student will, whenever reasonably possible, be informed of the screening results by the chairperson of the Health Sciences Division within seven (7) working days of the chairperson receiving the results.
- F. A positive drug screening result will prohibit the student from completing the clinical component of required nursing courses. A student must have a negative drug screening test on file to complete the courses.
  - a. Students must list all medications currently being taken.
  - b. The Collector will explain the collection procedure and the Chain of Custody form. The student will be provided with a sealed collection container.
  - c. Students must remove unnecessary outer garments (coats, sweaters, etc.) and remove items from pockets when entering the collection site.
  - d. The Collector will collect a monitored urine specimen.
  - e. In the presence of the student, the Collector will seal the urine specimen with a tamperproof security seal and affix an identification label with code number.
  - f. The student will verify the information on the identification label, initial the security seal, and read and sign the Chain of Custody Form and give the student the appropriate copy.
  - g. The Collector will sign the Chain of Custody Form and give the student the appropriate copy.
  - h. The Collector will forward the sealed urine specimen and Chain of Custody form to the appropriate agency.
- II. Urine samples will be screened for the following:
  - 1. D-Methamphetamine
  - 2. Barbiturates
  - 3. Benzodiazepines
  - 4. Cocaine
  - 5. Marijuana
  - 6. Methaqualone
  - 7. Opiates
  - 8. Methadone

- 9. Oxycontin
- 10. Ecstasy
- 11. Codeine
- 12. Morphine
- 13. Hydrocodone
- 14. Hydromorphone
- 15. Oxycodone

## III. Confidentiality

The Chairperson of the Health Sciences Division will receive all test results. Confidentiality of the results will be maintained with only the Chair or designee of the Chair and the student having access to the results, with the exception of legal actions which require access to the results.

## Readmission

To be considered for readmission, students who withdraw, or are withdrawn from the nursing program due to (1) a positive drug screen, or (2) the inability of a student to successfully participate or complete the required drug and alcohol screening must:

- A. Submit a letter from an Alabama Board of Nursing recognized treatment provider verifying completion of an appropriate substance abuse treatment program, and;
- B. Submit to an unannounced drug screen at the student's expense prior to readmission. A positive screen at this time will result in ineligibility for readmission.
- IV. Drug screening programs suggested or required by the Alabama Board of Nursing, Drake State, and/or various institutions with which the college contracts, may vary from time to time in any or all of their aspects. Students will be required to comply with screening which will satisfy any program or requirement established by the Alabama Board of Nursing or any health care facility with whom the college contracts for clinical experience, whether pre-clinical drug screening, random drug screening, or incident related screening.
  - Some of the classes of drugs for which screening will be conducted are available by prescription from health care practitioners. Prescription drugs prescribed to a student by an appropriate health care practitioner may nevertheless be subject to abuse and may give rise to reasonable suspicion testing or incident testing. The fact that student has a prescription for one or more of the classes of drugs which are legally prescribed by a health care practitioner does not necessarily, in and of itself, excuse the student from the effect of this policy.

## BACKGROUND CHECK FOR NURSING STUDENTS

As stipulated within clinical contracts, students must conform to the rules, policies, and procedures of the clinical affiliates, which include background checks.

## I. Guidelines

Background checks will be conducted according to the following guidelines:

Nursing students must sign the appropriate consent(s) prior to the background check. A
copy of the signed consent(s) will be maintained as indicated.

- The background checks will be scheduled and conducted by a designated company
  determined by the College. The designated company will be provided a copy of the policy.
  The student will be responsible for the cost of the background check.
  Results of the background check will be sent to the Health Sciences Division Chair.
- If a student fails to submit to the background check at the designated time, the student should contact the Health Sciences Division Chair in order to proceed with the background check. If the student fails to submit to the background check as delineated, the student will be administratively withdrawn from the program.
- The background check may include, but is not limited to:
  - a. Criminal and Civil History/Records which reveals felony and misdemeanor, arrests and convictions, and pending cases usually including the date, nature of the offense, sentencing date, disposition, and current status.
  - b. **Sex Offender** which includes a search of the state or county repository for known sexual offenders.
  - c. Social Security Number Trace which is a verification that the number provided by the individual was issued by the Social Security Administration, and is not listed in the files of the deceased.
  - d. **Office of the Inspector General** (OIG) which identifies those individuals who have committed offenses deeming them ineligible to care for patients receiving Medicare benefits.
  - e. Employment and Education Verification
  - f. Personal References/Interviews
  - g. Any Other Public Record
- The student will be informed of the results of <u>significant</u> findings in the background check. A
   significant finding in a background check is a background check that reveals information that
   may prohibit that person from participating in clinical supervision in any healthcare facility
   contracted by the college to provide clinical experience for students of the nursing program,
   according to that facility's policy.
- If any clinical agency refuses to allow a student to attend clinicals on the basis of their background check results, that student will be terminated from the nursing program. That student will not be eligible to re-enter the nursing program.
- The student will be provided a copy of background check results, if significant. Any dispute
  of the accuracy of the background check must be submitted in writing to the Health
  Sciences Division office within seven (7) days of notification of receipt of the results.
- Background checks which could render a student ineligible to participate in clinical learning
  experiences include, but are not limited to, certain convictions or criminal charges which
  could jeopardize the health and safety of patients and sanctions or debarment. Felony or
  repeated misdemeanor activity within the past seven (7) years and Office of the Inspector
  General violations will normally prohibit the obtainment of clinical learning experiences with
  clinical affiliate(s), but each significant finding in the background check will be reviewed
  individually.

#### II. Confidentiality

The Health Sciences Division Chair will review the background check results. Confidentiality of the results will be maintained with only the Chair or designee of the Chair and the student having access to the results, with the exception of legal actions which require access to the results.

#### **DUAL ENROLLMENT**

Institutions within The Alabama Community College System are authorized to establish dual enrollment/dual credit programs with local boards of education in the College service area. Courses offered by postsecondary institutions shall be of postsecondary level and enrolled students must pay normal tuition as required by the postsecondary institution. A student is eligible for dual enrollment/dual credit if the student meets the following criteria:

- A. The student must meet the entrance requirements established by institutions of postsecondary education:
- B. The student must have a minimum cumulative 2.5 GPA or better GPA on a 4.0 scale in completed high school courses and must maintain a minimum of "C" average;
- C. The student must have written approval of the appropriate principal and the local superintendent of education;
- D. The student must be in grade 10, 11, or 12, or have an exception granted by the participating postsecondary institution upon the recommendation of the students' principal and superintendent and in accordance with Alabama Administrative Code 290-8-9-12 regarding gifted and talented students;
- E. Students may enroll in academic, career and technical or health courses in accordance with guidelines of the Department of Postsecondary Education;
- F. Students enrolled in courses offered during the normal high school day on or off the high school campus shall have prior permission of the students' principal, superintendent, and the participating postsecondary institution president;
- G. Parental permission and travel for courses offered off the high school campus during the normal school day will be administered under the auspices of local boards of education; and
- H. Six semester credit hours at the postsecondary level shall equal one credit at the high school level in the same or related subject. Partial credit agreements shall be developed between the participating postsecondary institution and the local board of education.

## **ACCELERATED HIGH SCHOOL STUDENT - EARLY ADMISSION**

A high school student is eligible for early admission if he or she meets all the admission and entrance requirements established by the postsecondary institution along with the following criteria:

- A. The student has successfully completed the 10<sup>th</sup> grade;
- B. The student provides written approval from the local principal and/or his designee certifying that the student has a minimum cumulative 3.0 average and recommends the student be admitted under this policy;
- C. The student may enroll only in post-secondary courses for which high school prerequisites have been completed (for example: a student may not take English Composition until all required high school English courses have been completed). High School students must take the Accuplacer exam and place in eligible courses.

# **Exceptions**

Exceptions may be granted by the Chancellor for a student documented as gifted and talented according to the standards included in the state plan of exceptional children and youth. Exceptions apply only to the first and third requirements.

# SERVICE MEMBERS OPPORTUNITY COLLEGE (SOC)

Drake State is a member of the Service Members Opportunity College (SOC). As a SOC institution, we serve the higher educational needs of the members of the active military services. These units include the Army, Army National Guard, Navy, and the Marine Corps. As a SOC institution we are able to enroll active military personnel as students and assist them in earning an Associate's Degree.

Education opportunities are shared in two components:

- A. A degree plan is encouraged and becomes the ongoing requirement of the Associate Degree. Drake State would become the home college for new students who have entered into a student agreement with a previous college.
- B. Continuing students are those applicants who have already chosen a home college and have obtained a SOC Agreement. Assistance is given to these students in the selection of required courses to complete their degree plan.

## **Admission Procedures**

- 1. Obtain General Information packet from Admissions Office.
- 2. Meet with counselor.
- 3. Decide on tentative program of study.
- 4. Meet with program leader/department head.
- 5. Complete Application Form.
- 6. File Application Form with Admissions.
- 7. All admitted students are required to take the ACCUPLACER placement examination prior to registration for more than three credit hours or six weekly contact hours per semester.
- 8. Have high school transcript, college transcript, or copy of GED test scores mailed directly to the Admissions Office by the forwarding institution. All eligible male students between the ages of 18 and 26 must verify registration with the U. S. Select Service System.
- 9. For ADN Students ONLY: Pass AND Entrance Test.
- 10. Students who do not have a high school diploma or GED may enroll in selected programs. However, the student must pass the Ability-To-Benefit test prior to being admitted to the College.
- 11. For students who will need financial assistance: complete and file Pell Grant Application and request that Financial Aid Transcript be sent from all other postsecondary institutions previously attended. Upon receipt, take the federal Pell Grant Student Aid Report to the Financial Aid Officer at Drake State.
- 12. For JTPA, Rehabilitation, and other students sponsored by an outside agency ONLY: have sponsoring agency send Training Authorization Form to the business office.
- 13. For Veterans ONLY: bring DD-214, marriage license and birth certificates of all dependent children to the VA Counselor.
- 14. For Transfer Students ONLY: have transcripts from secondary technical centers or other postsecondary institutions evaluated for prior credit.
- 15. For ADN, Cosmetology, and Barbering Students ONLY: submit completed physical examination form to the program chair.

- 16. For ADN Students ONLY: schedule interview with Health Science Department Chair.
- 17. Receive acceptance letter from admissions.

  Attend Orientation/Assessment Session scheduled immediately prior to the beginning of registration.



## ADMISSION AND REGISTRATION SCHEDULES

## Admission Schedule

Students are admitted at the beginning of each of the three academic semesters in all programs. The Fall Semester begins in August, the Spring Semester in January and the Summer Semester in May. All new students should check with the Admission's Office for specific dates, which vary from year to year. New students must submit all applications and credentials for admissions to the Office of Admissions to be eligible for registration of courses.

## **New Student Orientation**

The Orientation program is designed to provide information that will aid a new student in his/her transition to college and to stimulate an excitement for learning. A student is introduced to college policies, procedures, requirements, and services. Each new student must attend an Orientation session and register for Orientation 101. A schedule of sessions is published each semester.

## Orientation 101 (ORI 101)

Orientation 101 is a course requirement of all Drake State students. A student can waive the course requirement if he/she attended another institution and completed at least 12 semester credit hours.

## Registration Schedule

Registration is scheduled at the beginning of each semester. Late registration is scheduled immediately following the registration period. Students registering during late registration must pay a late fee of \$25.00 in addition to all other fees.

#### **TUITION POLICIES**

Residency status must be determined upon admission. Applicants must first satisfy the admission requirements to the college. In determining resident student status for the purpose of charging tuition, the burden of proof lies with the applicant for admission. The institution may request proof that the applicant meets the stipulations for admission.

#### **In-State Tuition**

In order to be eligible for in-state tuition, an applicant must meet one of the following criteria:

- A. Determination of eligibility for in-state tuition shall be made by the Office of Admissions by evaluating the presence or absence of connections with the state of Alabama.
- B. The student is eligible for in state tuition if he or she resides in the adjacent state of Tennessee in the following counties: Bedford, Coffee, Franklin, Giles, Lawrence, Lincoln, Marion, Marshall, or Moore.

#### Out-of-State Student

Any applicant for admission who does not fall into one of the categories noted above shall be charged a minimum tuition of two times the resident tuition rate charged by that institution.

Students initially classified as ineligible for resident tuition will retain that classification for tuition purposes until they provide documentation that they have qualified for resident tuition.

An out-of-state student cannot attain Resident Status simply by attending school for twelve months in the State of Alabama.

#### PROVISIONAL ENROLLMENT

Students will be advised at the time of registration that if private third party agencies have not been paid by the end of the registration period or by the 30 calendar day extension, the student will be responsible for payment of tuition and fees immediately. If payment is not rendered immediately, the student will be administratively withdrawn.

The College will provide a disclaimer statement informing the student of these terms and conditions to be signed by the student during registration. The student must be at least 18 years of age to negotiate terms; if not, a responsible adult must sign.





# ASSESSMENT AND PLACEMENT

# **Placement Policy**

Drake State Testing and Assessment Center is located in Building 700 room 705. The testing center is open Monday through Friday and accepts walk-ins and appointments. All entering students are assessed through a 3-level screening guideline process.

- Screening Level 1: This level is the first level and determines placement via an ACT score that is not older than 5 years. All screening must begin here. See Level 1 chart for more information.
- Screening Level 2. This level is the second level of screening and only takes place if a student does not meet eligibility under (Level 1). Level 2 determines placement via a review of the high school GPA and English and math course grades. See Level 2 chart for more information.
- Screening Level 3: This level is the third level of screening and should only be utilized when a student is not eligible under Level 1 and Level 2 screening. Level 3 determines placement via Accuplacer scores. See Level 3 chart for more information.

## **English**

- Placement into ENG 101
  - o ACT English sub-score of 18 or above, or
  - o HS GPA of 2.75 or higher and A or B grade in English IV, or
  - WritePlacer (Accuplacer) score of 5
- Placement into ENG 101 and ENG 099
  - o ACT English sub-score of 17, or
  - HS GPA of 2.75 or higher AND grade of C in English IV, or
  - WritePlacer (Accuplacer) score of 4, or
- Placement into ENR 098
  - WritePlacer (Accuplacer) score of 3 or below

## **Mathematics**

- Math Placement based on ACT math sub-score of 20 or higher See Math Placement Guidelines
   Chart
- Placement into MTH 100 or MTH 110/MTH 109 or MTH 112/MTH 111
  - ACT math sub-score of 18 or 19, or
  - o HS GPA of 2.75 or higher and A or B grade in Algebra II, or
  - o Accuplacer Next Generation Math (QAS) score of 253-266 for MTH 100
  - Accuplacer Next Generation Math (QAS) score of 267-300 for MTH 110 or 112
- Placement into MTH 100 and MTH 099
  - o ACT math sub-score of 17, or
  - o HS GPA of 2.75 or higher and C in Algebra II, or
  - Accuplacer Next Generation Math (QAS) score of 243-252
- Placement into MTH 098
  - Accuplacer Next Generation Math (QAS) score of 200-242

#### FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT

Drake State protects the security, confidentiality, and integrity services.

Drake State shall not permit access to or the release of education records or personally identifiable information contained therein, other than directory information as defined with the paragraph titled "Directory Information," without the written consent of the student, to any party other than the following:

- 1. Other school officials and teachers of the college who have been determined by the college to have legitimate educational interests;
- 2. Officials of those schools or school systems in which the student seeks or intends to enroll, upon the condition that the student may receive a copy of the record if desired, and have an opportunity for a hearing to challenge the content of the record;
- 3. Certain authorized representatives of federal departments/agencies or state educational authorities for purposes of audits, evaluative studies, etc. Data collected will be protected in a way that prevents personal identification except when specifically authorized by federal law. The data will be

- destroyed when no longer needed for such purposes in connection with a student's application for, or receipt of, financial aid;
- 4. State and local officials or authorities to which such information is specifically required to be reported or disclosed pursuant to state statute adopted prior to November 19, 1974;
- 5. Organizations conducting studies for, or on behalf of, educational agencies or institutions for the purpose of developing, validating, or administering predictive tests, administering student aid programs and improving instruction, provided such studies do not permit the personal identification of students to be released to persons other than representatives of said organizations and providing that such information will be destroyed when no longer needed;
- 6. Accrediting organizations in order to carry out their accrediting functions; and
- 7. Pursuant to a lawful subpoena or court order; other appropriate persons in an emergency to protect the health or safety of the student or others.

#### **DIRECTORY INFORMATION**

The following information with respect to each student has been designated by the College as directory information, which may be made available to the public, absent a student's request that any such information not be released:

- A. Student's name, address, telephone number
- B. Dates of attendance
- C. Educational agencies or institutions most recently attended by the student
- D. Program of study, degree desired, and classification
- E. Participation in officially recognized activities, clubs, and organizations; and
- F. Degrees and awards received.

If any student has an objection to any of the aforementioned information being released during any given semester or academic year, the student should notify, in writing, the Director of Admissions/Registrar during the first three weeks of the respective semester or academic year.

## **DROPPING AND ADDING CLASSES**

Adding classes to a student's schedule is permitted during the registration period. All changes must be made prior to the deadlines published in the College calendar.

## **CHANGE OF MAJOR**

Students who wish to change their major must complete a Change of Major form and submit to the Admissions Office in order to facilitate the change. Changes requested after the start of the current term will be effective at the start of the following term.

## WITHDRAWAL FROM SCHOOL

Students who are contemplating withdrawal from school should use the following procedure:

- 1. Obtain a Withdrawal Form from Admissions.
- 2. Obtain withdrawal clearance from the financial aid office, if applicable.
- 3. Submit the completed class withdrawal form to the Office of Admissions for processing. If the withdrawal from school is prior to the 15<sup>th</sup> school day, the student may be due a tuition refund (see Refund Policy under the Financial Information section of the catalog). It is the responsibility of the student to ensure notification of withdrawal is received by the Office of Admissions prior to the deadline published in the college calendar. Failure to submit the completed withdrawal form to

Admissions may result in a grade of "F" for each course in which the student is registered. Students who withdraw after the registration period will have each of their courses recorded as "W". "W's" are not used in grade point calculations. Any veteran who withdraws from school may be required to repay in full to the Veteran Administration benefits received that semester up to the time of withdrawal. Any student who receives Financial Assistance should notify the Financial Aid Office before withdrawing from school.

### ACADEMIC TRANSCRIPTS POLICY

The transcript policy of the College includes:

- 1. In compliance with the Family Educational Rights and Privacy Act (FERPA), the college does not release transcripts of a student's work except upon the student's written and signed request or an electronic request via their Banner Self-Service account.
- 2. Official transcripts are sent to institutions, companies, agencies, etc. after the student's written and signed request is received by the Admission's Office. Drake State will not fax or email unofficial transcripts to an individual or a receiving institution.
- Official transcripts that are not released specifically to institutions, companies, agencies, etc. but
  are issued directly to the student will be stamped ISSUED TO STUDENT. A student should be
  aware that the receiving party has the right to decline the transcript stamped ISSUED TO
  STUDENT.
- 4. All transcripts issued are free. Transcripts will not be issued for persons who have financial obligations to the College.
- Names, dates of attendance, social security number, and address to which the transcript is to be sent are to be included in the request. NOTE: Students with name changes should include ALL former names.
- 6. The Admissions Office does not issue or reproduce transcripts from other institutions. Request for transcripts or work taken at other institutions must be directed to the institution concerned.
- 7. Official transcripts will be accepted when delivered "by hand" in a sealed envelope. The college reserves the right to deny hand delivered transcripts if the-seal is broken.
- Transcript requests should be made at least one week before the transcripts are needed.
   Processing times will be longer at the start and end of the term and if attendance was prior to 1999.
- 9. Requests for transcripts if attendance was prior to 1999 should be sent to:

The Office of Admissions

J.F. Drake State Community and Technical College

3421 Meridian Street, North

Huntsville, Alabama 35811

## **ATTENDANCE POLICY**

Class attendance is considered essential to the educational process at Drake State. The College subscribes to the philosophy that students will achieve academic success in direct proportion to class attendance. We also subscribe to the belief that the ability to manage one's own attendance and punctuality is a critical component of job readiness that each student must master. With that in mind and since it is not required by our accrediting agency, Drake State is a non-attendance taking institution. Students must develop the ability to manage their time, monitor their attendance, and make their own

determination on whether or not to drop from a class. This policy in no way indicates that class attendance is not critical to the student's success; indeed, it is critical to success in the classroom just as it will be critical to success in the workplace.

Individual instructors are granted the flexibility to establish more restrictive attendance policies for their classes. These policies can specify a maximum number of absences, tie the student grades in part to class attendance, or incorporate other methods they deem necessary. Any such policies will be clearly explained as part of the course syllabus provided to each student at the beginning of the instructional term.

Further, some students are receiving educational benefits from various federal and state agencies while attending classes at Drake State. Such agencies, like VA, WIOA, and others, may impose their own attendance policies on students as a condition of receiving those educational benefits. Drake State acknowledges the right of the agencies to do so and is committed to providing them with an accurate accounting of the attendance of their benefit recipients.

Excused absences occur mainly because of emergencies (e.g. accidents, illness, or death of an immediate family member) or a result of federal or state statute (e.g. military service). Both types require proper notification and documentation, as determined by the instructor. When excused absences make it impossible to reasonably make up class work, the instructor may assign an "I" grade, or the student may withdraw according to the College's withdrawal policy.

It is the student's responsibility to keep track of their exact number of absences in each class and to ensure that any missed assignments are completed in a timely manner. The instructor is not required to notify the student when the student is in danger of being excessively absent, nor is the instructor required to review any material missed as a result of the student being absent.

## **LIVE WORK POLICY**

Live work is done by students as part of their training program. Such work can be done either in school or on a job location and includes service, repair, or production jobs of any and all kinds.

Live work will be conducted when the training program requires such projects for the acquisition of occupational skills leading to employment. Live work will be assigned to individual students by their instructor(s) as part of the student's training program.

Administration and control of live work in accordance with Alabama Community College System policies are the responsibility of the president of each college. All live work performed must be approved by the president or his/her representative. The president shall be responsible for the determination and collection of all charges and maintenance of appropriate records. The state prescribed and approved accounting procedures will be followed. Live work will be performed in specific projects for specific individuals and organizations.





# S.C. O'NEAL SR. LIBRARY AND TECHNOLOGY CENTER

The mission of the S. C. O'Neal Sr. Library and Technology Center is to provide comprehensive and innovative information services to support scholarship, learning and the instructional programs offered by Drake State. The library supports the administration, faculty, staff, students and community clientele by employing traditional resources and current technology to facilitate access to information.

The library also provides state-of-the-art hardware and software programs, the instruction and training needed to use the equipment and services effectively and emerging technologies in order to promote currency and serve as the model for information technology needs of the college. Students have access to books, periodicals and electronic resources such as databases, as well as a variety of technology aids to assist in their learning needs

# Library User Behavior Policy

All visitors of the S. C. O'Neal, Sr. Library and Technology Center are expected to follow Drake State's Student Code of Conduct. All visitors should familiarize themselves with the Code of Conduct. A copy of the Code of Conduct can be provided upon request.

# **Behavioral Expectations**

- 1. Library users are expected to keep noise levels low. Groups working on projects are encouraged to utilize the group study room located on the second floor so that they may engage in discussion without disturbing other people in the library.
- 2. Any behavior that disturbs or endangers other library users or staff is prohibited. This includes loud noises, misuse of library materials or facilities, or verbal or physical harassment.
- 3. Cell phones must be turned off or muted. ALL cell phone conversations must be held outside the library.
- 4. ABSOLUTELY NO FOOD OR DRINK IS PERMITTED IN THE LIBRARY.

- 5. Library users are expected to follow the instructions of the library staff.
- 6. Children 18 years of age and under must be accompanied by an adult AT ALL TIMES, unless they are high school students participating in the College's early enrollment program. Children should NEVER be left unattended. Children are expected to comply with all library policies, which is the responsibility of the accompanying adult. The library staff is not responsible for the care of children. The library staff will always supervise children's use of library materials and/or facilities, along with the accompanying adult.
- 7. Library materials must not be damaged in any way.
- 8. Personal belongings should not be left unattended. The library is not responsible for lost or stolen items. Items that are found will be held at the circulation desk until the first day of each month, and then disposed of if they are not claimed.

## Failure to comply with ANY of the rules listed above or Drake State's Code of Conduct may result in:

- Loss of access
- Expulsion from the building
- Disciplinary action by Drake State Community and Technical College
- Legal action, where applicable

Drake State Community and Technical College and the S. C. O'Neal, Sr. Library and Technology Center staff reserve the right to change and/or update this policy at any time.

## Resources and Services

The library houses a host of resource materials which support the instructional programs at J. F. Drake State Community and Technical College.

The overall collection consists of books, industrial and technical manuals, periodicals, software programs, electronic databases and a variety of audio-visual materials and equipment for use on an individual or group basis. Other resources include the Vertical File, Black Collection, plus much more.

The library's services consist of access to the Internet and Wi-Fi, the Alabama Virtual Library (AVL), ProQuest Global Newsstream database, photocopying/fax, laminating, and much more. Also available to students are printing and copying services offered at reasonable costs.

## Personal Computers

Two open labs are provided in the library for individual use. Students are asked to adhere to the Computer Usage Policy of the college. All students are required to sign the computer log before using all personal computers. As a reminder, priority is given to academic or instructional assignments versus recreational activities.

# Borrowing Privileges- Reciprocal Lending Agreements

The S.C. O'Neal, Sr. Library and Technology Center have reciprocal lending agreements with Alabama A&M University, Athens State University, Calhoun Community College, Oakwood University, and the University of Alabama of in Huntsville.

Drake State students are allowed to check out the following number of resources at the reciprocal lending agreement institutions:

- 5 Alabama A&M University
- 3 Athens State University
- 5 Calhoun Community College
- 8 Oakwood University
- 3 University of Alabama in Huntsville

Practical Nursing students may also use the University of Alabama, Huntsville, Primary Medical Library Facility located near Huntsville Hospital.

Students attending the reciprocal lending agreement institutions are allowed the checkout the same number of resources from Drake State Community and Technical College.

All students participating in reciprocal lending agreements must provide a valid student ID from their institution and a current address and telephone number.

Other community members who wish to check out library materials may request a community user account. To open an account, community members must pay a \$20 fee and provide a picture ID, proof of address and two phone numbers. The account is valid for two years and membership is renewable. Community users may have two items on loan at one time.

Children wishing to borrow material must have a parent or guardian check out the material for them. The material will be checked out in the parent or guardian's name and the parent or guardian will assume all responsibility for the material including fines and replacements costs if the material is lost. Fines are \$. 25 per day for each overdue item.

# The Alabama Virtual Library (AVL)

The Alabama Virtual Library (<a href="www.avl.lib.al.us">www.avl.lib.al.us</a>) provides all citizen of the State of Alabama with on-line access to essential library and information resources. The Alabama Virtual Library can be accessed from all computer labs on campus having Internet connections and also from the campus website (<a href="www.drakestate.edu">www.drakestate.edu</a>) using the library link.

The library is the point of contact for students to register for home access to the Alabama Virtual Library. All students who own personal computers are encouraged to request an AVL card from the Reference desk located on the first floor of the library adjacent to the elevator.

## ProQuest Global Newsstream Database

ProQuest Global Newsstream Database searches are a combination of periodical retrieval software and quality information available via the Internet. ProQuest is available on the campus in any computer lab with internet connectivity. ProQuest (<a href="www.proquest.com">www.proquest.com</a>) can also be accessed through Canvas Learning Management System on the library's web page at <a href="www.drakestate.edu">www.drakestate.edu</a>.

## Circulation of Materials

Students with current identification cards may borrow up to ten (10) resources (books and audio-visual materials) from the library for a period of thirty (30) days. Resources are renewable provided holds have not been placed on any circulating items. Delinquent materials will incur fines at a rate of ten (10) cents per day.

# **Hours of Operation**

The library staff, upon request, provides instruction, orientation and personal assistance during regular operational hours as follows:

Monday - Thursday: 7:30 am - 7:00 pm

Friday – 7:30 am – 11:30 am

Weekends: Closed

The hours may vary on holidays and when classes are not in session. If you have any questions, email directly to library@drakestate.edu or call (256) 551-5207.

## COMPUTER AND TECHNOLOGY ACCEPTABLE USE POLICY

Individuals are Fully Responsible for their own actions while using Drake State's (Drake) "computer technology" (defined as Drake computers and computer-related equipment, programs, supplies, and network communications, including Internet access gained through Drake's computer network). Users must respect the privacy and rights of others, and the integrity of both the hardware and software being used. Accordingly, users must assume responsibility for making the best possible use of access privileges and for not abusing them. Employee questions concerning access, acceptable and unacceptable use, should be directed to the Coordinator of IT Services. Student questions should be directed to the appropriate instructor or the Dean of Instruction.

Limited Access: Drake reserves the right to limit the access of any and all employees and students to certain software programs or directories. Each user is provided with a certain access level. A user may not access a computer without authorization or exceed authorized access. A user's activity is restricted to access of only those programs or directories in that user's respective access level. Likewise, a user may not obtain access to another level by means of another user's access. Any user who exceeds their respective level, assists another user to gain access to an otherwise inaccessible level, or allows another user to gain access to an otherwise inaccessible level will be held accountable for the violation of this policy. A user may not continue to enter an access level which was previously assigned to the user, but which has since been suspended, revoked, or otherwise continued.

No user may knowingly:

- Use either Drake computer technology or personal technology to "break into" or "hack into" college or other computers and storage devices for the purpose of reading, copying, deleting, modifying or distributing data and/or information of others, or any other purpose;
- Give passwords, access codes or other security level access information to others;
- Share personal or Drake e-mail accounts.

Internet Access: Any employee or student access to the Internet through Drake's computer network is limited to the acceptable use as set out below. Likewise, any employee or student who accesses the Internet through Drake's computer network for an unacceptable use or defined above or causes an unacceptable result will be held accountable for the violation.

The use of the Internet must be in support of education, research, college-related service activities, or college administration and consistent with the mission of Drake State of any material in violation of any federal or state regulation is prohibited. This includes, but is not limited to: copyrighted material, threatening or obscene material, or material protected by trade secret. Any use of the Internet through Drake's computer network for political advertisement or political lobbying is also strictly prohibited.

Users of the Internet through Drake's computer network are expected to abide by the rules of network etiquette. Any swearing, vulgarities or other inappropriate language is prohibited. Users are also prohibited from revealing personal addresses or phone numbers of students or colleagues. Users are hereby warned that electronic mail (e-mail) is not guaranteed to be private. Administrators who maintain the system do have access to all mail. Messages relating to or in support of illegal activities may be reported to the authorities.

Acceptable Use: It is acceptable to use Drake computer technology for purposes relating directly to education, educational research, college-related service activities, and administration of Drake. Examples of acceptable use are:

- Using the software/hardware only in the condition and settings provided by Drake. User may
  not modify software settings, to add or delete hardware components or modify software
  features, unless so instructed by appropriate college officials.
- Using the network for the purpose of instructional support. This may include class assignments, research, skill development, and/or the production of materials used in the educational process.

Unacceptable Use: It is unacceptable to use Drake computer technology for any illegal purpose or to interfere with or disrupt other users, services or equipment. Such unacceptable use includes, but is not limited to, the following:

- Engage in activities to damage or disrupt computer, computer system, network information, data or a program by such acts as virus creation and propagation, wasting system resources, or overloading networks with excessive data.
- Engage in activities for the purpose of promoting personal gain and/or profit or use of college technology for organizations other than Drake.
- Engage in any activity which is in violation of the Code of Alabama (1975) §§36-25-1 through 36-25-30, as amended (the "State Ethics Law"), or which, in the opinion of the Drake administration, may be contrary to such law.
- Use of any computer technology in a manner that violates patent protection or license agreements.
- Engage in any activity that violates any and all copyright laws. Such activity may include utilizing
  Drake technology to copy and/or distribute copyrighted materials of any type that the user does
  not have a valid and legal right to copy.
- Engage in any use that is illegal or results in the commission of any illegal activity.
- Use Drake computer technology to support or oppose any candidates or candidates for public office, or for any other political purpose. (Use of State property for political purposes is against Alabama law.)
- Transmit messages of a romantic or sexual nature to any person or persons.
- Create, display, transmit or make accessible threatening, racist, sexist, offensive, annoying, or harassing language and/or material.
- Knowingly access or transmit information which contains obscene or indecent material as defined by law.
- Knowingly perform an act, which will interfere with the normal operation or use of computers, terminals, peripherals, or networks.
- Create copies, or take into the user's personal possession copies of Drake owned software and/or hardware technology such as computers, components, disks, or peripherals.

- Using another person's computer account or allowing someone else to use your account (e-mail, secure systems, etc.).
- Share personal or Drake e-mail accounts.
- Masking the identity of an account or machine or in any manner misrepresenting your identity in e-mail or other electronic communication.
- Communicating any information concerning password, identifying code, personal identification number or other confidential information without the permission of its owner.
- Creating, modifying, executing or re-transmitting any computer program or instructions
  intended to obscure the true identity of the sender of electronic mail or electronic messages,
  collectively referred to as "Messages," including, but not limited to, forgery or Messages and/or
  alteration of system and/or user data used to identify the sender of Messages.
- Attempts to gain unauthorized access to any information facility, whether successful or not. This
  includes running programs that attempt to calculate or guess passwords, or that are designed
  and crafted to trick other users into disclosing their passwords, and any attempts to circumvent
  data protection schemes or uncover security loopholes. It also includes electronic
  eavesdropping or communication facilities.

Access is a Privilege, Not a Right: Drake State reserves the right to deny the privilege of the use of any or all types of computer technology to individuals who violate this Acceptable Use Policy. Users may also be held accountable for violations of Federal and/or Alabama Laws (i.e, Computer-Related Crime, etc.). Violations of this policy may result in the termination or suspension of employment, suspension of computing privileges, disciplinary review, any other forms of employee or student discipline, and/or financial restitution to Drake State for any damages and costs related to inappropriate or unacceptable use, and/or criminal or civil legal action. Drake State reserves the right to modify or clarify this policy at any time.

Computer Crimes: The Alabama Computer Crime Act, codified at Code of Alabama (1975) §§13A-8-101 – 13A-8-103, makes it a crime for a person to damage, or without authorization to modify, computer equipment, computer networks, and computer programs and supplies or without authorization to access, examine, or use computer data and programs, and provides for punishment up to a Class B Felony (imprisonment for 2-20 years and/or a fine up to \$10,000 or double the damage or loss to the victim). Federal law also makes it a crime to without authorization access level to computers or computer networks devoted in part to Federal purposes. Any violation of such State or Federal laws respecting computers shall also constitute a violation of the Drake State Computer Technology Acceptable Use Policy. Furthermore, this policy prohibits various actions (described above) which may or may not constitute a crime.

## Unacceptable Use

It is not acceptable to use DrakeMail in such a way as to interfere with or disrupt network users, services, or equipment. DrakeMail resources may not be used in the following manner.

- A. To generate or facilitate unsolicited commercial e-mail ("spam"). Such activity includes, but is not limited to:
  - 1. Sending e-mail in violation of the CAN-SPAM Act or any other applicable anti-spam law.
  - 2. Imitating or impersonating another person or his/her e-mail address.
  - 3. Sending e-mails to users who have requested to be removed from a mailing list.
  - 4. Selling, exchanging or distributing to a third party the e-mail addresses of any person without such person's knowledge and continued consent to such disclosure.

- 5. Distributing unsolicited e-mails to significant numbers of e-mail addresses belonging to individuals and/or entities with whom you have no pre-existing relationship.
- B. To send, upload, distribute or disseminate or offer to do the same with respect to any unlawful, defamatory, harassing, abusive, fraudulent, infringing, obscene, or otherwise objectionable content.
- C. To intentionally distribute viruses, worms, defects, Trojan horses, corrupted files, hoaxes, or any other items of destructive or deceptive nature.
- D. To conduct or forward pyramid schemes and the like.
- E. To transmit content that may be harmful to minors.
- F. To impersonate another person (via the use of an e-mail address or otherwise) or otherwise misrepresent yourself or the source of any e-mail.
- G. To illegally transmit another's intellectual property or other proprietary information without such owner's or licensor's permission.
- H. To use DrakeMail to violate the legal rights (such as rights of privacy and publicity) of others.
- I. To promote or encourage illegal activity.
- J. To interfere with other DrakeMail users' enjoyment of the service.
- K. To conduct commercial activities and other activities conducted for personal gain.
- L. To promote religious or political causes or to promote fundraising or lobbying.
- M. Solicitations not approved by the College.
- N. Vandalism and mischief that incapacitates, compromises, or destroys college resources and/or violates federal and/or state laws.
- O. Violating software copyrights and usage licensing agreements.
- P. Violating any federal, state, or local law/regulation, or college policy/procedure.

## **EQUAL OPPORTUNITY IN EDUCATION AND EMPLOYMENT POLICY**

The following policy reflects Drake State's commitment to equal opportunities in education and employment:

No person shall be denied employment, excluded from participation, be denied the benefits of, or subjected to discrimination in any program, activity, or employment on the basis of gender, race, color, disability, religion, national origin, age or ethnic group.

Drake State complies with nondiscriminatory regulations under Title VII of the Civil Rights Act of 1964, Title IX Educational Amendment of 1972, which prohibits discrimination based on sex; Title IX, Section 106.8, which prohibits sexual harassment; Section 504 of the Rehabilitation Act of 1973, which prohibits violations of the rights of the disabled; and Title VI, which prohibits discrimination based on race, color, or national origin.

#### **HARASSMENT POLICY**

Drake State is committed to providing employment and educational environment free of harassment in any form. Employees shall adhere to the highest ethical standards and professionalism and refrain from any form of harassment. Both employees and students shall strive to promote an environment that fosters personal integrity where the worth and dignity of each human being is respected. Any practice or behavior that constitutes harassment shall not be tolerated.

Harassment can be defined as but is not limited to:

Disturbing conduct which is repetitive;

- Threatening conduct;
- Intimidating conduct;
- Inappropriate or offensive slurs, jokes, language, or other verbal, graphic, or other like conduct;
- Unwelcome sexual advances or requests for sexual favors;
- Assault;
- Repeated contact solicited during non-traditional business hours which may be perceived as harassment by recipient unless it is specifically associated with work related duties.

Employees and students who are found in violation of this policy shall be disciplined as deemed appropriate by the investigating authority. Harassment of employees or students by non-employees is also a violation of this policy.

This policy encourages faculty, students, and employees who believe they have been the victims of harassment, or those who become aware of any harassment, to contact the Senior Personnel Officer (SPO) or the Office of Human Resources (HR) within ten days of when the alleged incident occurred. Any reprisals shall be reported immediately to the SPO or HR. Failure to act, which includes initial investigation, shall be deemed in direct violation of this policy.

Sexual harassment is a form of sex discrimination which is illegal under Title VII of the Civil Rights Act of 1964 for employees and under Title IX of the Education Amendments of 1972 for students. Sexual harassment does not refer to occasional compliments; it refers to behavior of a sexual nature which interferes with the work or education of its victims and their coworkers or fellow students. Sexual harassment may involve the behavior of a person of either sex against a person of the opposite sex or the same sex, and occurs when such behavior constitutes unwelcome sexual advances, unwelcome requests for sexual favors, or other unwelcome verbal or physical conduct of a sexual nature, when perceived by the recipient that:

- submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or educational opportunities
- or submission to or rejection of such conduct is used as the basis for employment or academic decisions affecting that individual
- or such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance, or creates an intimidating, hostile, or offensive work or educational environment

Sexual harassment can be verbal, visual, or physical. It can be overt, as in the suggestions that a person could get a higher grade or a raise by submission to sexual advances. The suggestion or advance need not be direct or explicit; it can be implied from the conduct, circumstances, and relationship of the individuals involved. Sexual harassment can also consist of persistent, unwanted attempts to change a professional or educational relationship to a personal one. Sexual harassment is distinguished from consenting or welcome sexual relationships by the introduction of the elements of coercion; threat; unwelcome sexual advances; unwelcome requests for sexual favors; other unwelcome sexually explicit or suggestively written, verbal, or visual material; or unwelcome physical conduct of a sexual nature. Examples of verbal or physical conduct prohibited within the definition of sexual harassment include, but are not limited to:

- Physical assault
- Direct or implied threats that submission to or rejection of requests for sexual favors will affect a term, condition, or privilege of employment or a student's academic status
- Direct propositions of a sexual nature

- Subtle pressure for sexual activity
- Repeated conduct intended to cause discomfort or humiliation, or both, that includes one or more of the following: comments of a sexual nature, sexually explicit statements, questions, jokes, or anecdotes
- Repeated conduct that would cause discomfort and/or humiliate a reasonable person at whom the conduct was directed that includes one or more of the following:
  - 1. Touching, patting, pinching, hugging, or brushing against another's body
  - 2. Commentary of a sexual nature about an individual's body or clothing
  - 3. Remarks about sexual activity or speculations about previous sexual experience(s)
- Intimidating or demeaning comments to persons of a particular sex, whether sexual or not
- Displaying objects or pictures which are sexual in nature that would create a hostile or offensive employment or educational environment, and serve no educational purpose related to the subject matter being addressed

This policy shall be distributed, communicated and implemented in a manner which provides all interested parties the opportunity to be informed of this policy. A system-wide educational program shall be utilized to assist all members of the community to understand, prevent and combat harassment. Each community and technical college is required to provide annual training related to harassment, including sexual harassment.

## STUDENT SUPPORT SERVICES

# Student Support Services and Campus Regulations

Drake State provides student support programs, services, and activities consistent with its mission, while promoting student learning and advancing the development of its students. The College is dedicated to the belief that all people should have an equal opportunity to develop and expand their skills and knowledge throughout their lives. The College provides an environment that is conducive to learning, easily accessible, and accommodating to students with a variety of needs. The current student support programs and services confirms that the institution, in context of its mission, promotes student learning and enhances the development of its students.

Refer to the Student Handbook for specific information regarding student support services, student organizations, and other relevant student policies, procedures, and other TRiO campus information.



# FINANCIAL INFORMATION

# FINANCIAL GENERAL INFORMATION

Students are expected to meet all financial obligations when they become due. The College reserves the right to refuse admission or to terminate any student who fails to promptly meet his/her financial obligations to the College. Tuition and most other fees and expenses are due and payable at the time of registration. All money is handled through the Business Office. Students are expected to meet all financial obligations when due.



# **Tuition**

Tuition is established by the Alabama State Board of Education and is subject to change at its discretion without prior notice.

Tuition and Fees 2019 – 2020

Semester	In-State	Facility	Technology	Building	Reserve	
Hours	Tuition	Fee	Fee	Fee	Fee	Total
1	131	9	9	9	1	159
2	262	18	18	18	2	318
3	393	27	27	27	3	477
4	524	36	36	36	4	636
5	655	45	45	45	5	795
6	786	54	54	54	6	954
7	917	63	63	63	7	1113
8	1048	72	72	72	8	1272
9	1179	81	81	81	9	1431
10	1310	90	90	90	10	1590
11	1441	99	99	99	11	1749
12	1572	108	108	108	12	1908
13	1703	117	117	117	13	2067
14	1834	126	126	126	14	2226
15	1965	135	135	135	15	2385
16	2096	144	144	144	16	2544
17	2227	153	153	153	17	2703
18	2358	162	162	162	18	2862
19	2489	171	171	171	19	3021
20	2620	180	180	180	20	3180
21	2751	189	189	189	21	3339
22	2882	198	198	198	22	3498
23	3013	207	207	207	23	3657
24	3144	216	216	216	24	3816

#### Out of State Tuition and Fees

Out-of-state tuition is equal to two times the in-state amount for tuition. All other fees remain the same. Students who apply for admission and reside in the Tennessee Counties which border Madison County, Alabama are extended in-state tuition. The state of Alabama requires proof of residency for twelve consecutive months in order to qualify for in-state tuition.

#### Veteran In-State Tuition PL115-251

The following individuals shall be charged a rate of tuition not to exceed the in-state rate for tuition and fees purposes:

- A Veteran using educational assistance under either chapter 30 (Montgomery G.I. Bill Active Duty Program) or chapter 33 (Post-9/11 G.I. Bill), of title 38, United States Code, who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of discharge or release from a period of active duty service of 90 days or more.
- Anyone using transferred Post-9/11 GI Bill benefits (38 U.S.C. § 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence) and enrolls in the school within three years of the transferor's discharge or release from a period of active duty service of 90 days or more.
- Anyone described above while he or she remains continuously enrolled (other than during regularly scheduled breaks between
  courses, semesters, or terms) at the same school. The person so described must have enrolled in the school prior to the
  expiration of the three year period following discharge or release as described above and must be using educational benefits
  under either chapter 30 or chapter 33, of title 38, United States Code.
- Anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. § 3311(b)(9)) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal State of residence).
- Anyone using transferred Post-9/11 G.I. Bill benefits (38 U.S.C. § 3319) who lives in Alabama while attending a school located in Alabama (regardless of his/her formal state of residence) and the transferor is a member of the uniformed service who is serving on active duty.
- Anyone using educational assistance under chapter 31, Vocational Rehabilitation/Employment (VR&E), also be charged the
  resident rate. Effective for courses and terms beginning <u>after March 1, 2019</u>, a public institution of higher learning must
  charge the resident rate to chapter 31 participants, as well as the other categories of individuals described above. When an
  institution charges these individuals more than the rate for resident students, VA is required to disapprove programs of
  education sponsored by VA.

# **Mandatory Fees**

Facility renewal: \$9.00 Per Credit Hour Instructional Technology: \$9.00 Per Credit Hour Reserve: \$1.00 Per Credit Hour Building: \$9.00 Per Credit Hour

Graduation: \$159.00

Complete Withdrawal: Lesser of 5% of tuition & fees, or \$100.00

## Online or Hybrid Courses

Tuition for online and hybrid course follow the same fee schedule as above.

Fees are not charged for the following services:

- Application
- ID Card
- Transcript
- Parking

#### Drop-Add

## **Punitive Fees**

Late Registration: \$25.00

Overdue Library Book: \$0.25 per Book,

Per Day

Each program has additional charges for books, uniforms, tools, equipment, certification tests, licenses, etc., which are unique to the program. Specific information on additional expenses associated with a program of study may be obtained from an instructor and/or department head/program leader.

The Business Office accepts cash, money orders, cashier checks, VISA, Master Card, American Express, and personal checks.

#### FINANCIAL REGULATIONS

Students are required to pay tuition and fees in full upon registration. Students eligible for Title IV Student Financial Aid, grants and scholarships must pay their remaining amount due after aid has been applied, in order to complete their financial registration. Students may enroll with written authorization from sponsoring agencies. If the third-party sponsors have not paid the College within 30 days from the first day of the term, the student will be required to pay any outstanding balance or be subject to removal from classes. Students who add courses during the drop/add period must pay any additional balance due at the time the courses are added or be subject to removal from classes.

#### **BOOKSTORE**

Students may purchase books, kits, supplies from the College's online bookstore. The online bookstore also stocks merchandise with the College name and seal.

#### **WITHDRAWAL**

#### Partial Withdrawal

Students who drop a class during the regular drop/add period, but do not completely withdraw from the College, will be refunded the difference in the tuition paid and the tuition rate applicable to the reduced number of hours, including fees appropriate to the classes dropped. There is no refund due to a student who partially withdraws after the official drop/add period. Student financial aid may be reduced based on a partial withdrawal which will require a recalculation of the financial aid benefit. Students are required to pay any resulting outstanding balance from a partial withdrawal which will require a recalculation of their financial aid benefit.

### Complete Withdrawal

Students who officially withdraw from all classes for which they registered before the first day of class will be refunded the total tuition and other refundable fees, less an administrative fee of 5% of tuition and fees.

Students who officially withdraw completely after the first day of classes but prior to the end of the third week of classes will be refunded according to the official withdrawal date, as follows:

#### Refund Schedule

Withdrawal before Classes Begin:

100% of tuition and fees.

Withdrawal during the First Week (Day 1-5):

70% of tuition and fees.

Withdrawal during the Second Week (Day 6-10):

45% of tuition and fees.

Withdrawal during the Third Week (Day 11-15):

20% of tuition and fees.

No refunds will be made in case of withdrawal after 15 days of classes.

# Veterans Benefit Refund Policy

The U.S. Department of Veterans Affairs requires all changes of enrollment to be certified within 30 days of action. For VA purposes, the effective date is the date the student withdrew or dropped the class. The U.S. Department of Veterans Affairs will process the information regarding change of enrollment and may establish a debt on the student, based on the effective date of the change. It is the responsibility of the student to satisfy any debt established on the student by the VA.

Students withdrawing from all classes in a semester will have the current, and any future certifications terminated. If the student completely withdraws on or before the first day of the term, Drake State will return the tuition and fees payment received, directly to the VA, upon receipt of school debt letter. If the date of complete withdrawal is after the first day of the term, any credit balances that result from a refund of institutional charges will be issued to the student within 40 days from the date a credit balance is created on the Veteran student's account.

#### Financial Aid Refunds

All student refunds will be available 14 days after the published disbursement date. The disbursement date is the date that financial aid is applied to student accounts to be used to pay fees, tuition and other authorized charges. This date is published on student's self-service banner account.

#### **Student Financial Services**

Drake State believes that every qualified student with the desire to attend the institution should have the opportunity to do so. Financial aid is available from a variety of sources, such as the Federal Pell Grant Program and the Alabama State Grant Program. Thus, financial aid in the form of scholarships, grants, and work-study is available to students who meet the criteria for such aid.

## **Application Procedures**

In order to determine eligibility for federal financial aid programs, the student should complete the Free Application for Federal Student Aid (FAFSA). The FAFSA form may be completed online at the U. S. Department of Education's website (www.fafsa.ed.gov). The student should list **Drake State's school code (005260)** in the section requesting the name of the college that he/she plans to attend.

Within one to two weeks after the FAFSA has been filed, the student will receive a Student Aid Report (SAR). Drake State will also receive an electronic copy if s/he has listed Drake State. The Financial Aid Office at Drake State is responsible for verifying that students meet all of the Department of Education's eligibility criteria. The student may also be asked to supply documents (tax transcripts from the IRS, wage and income transcripts, verification forms, etc.) to check the accuracy of the information reported in the SAR. If an error is found, the SAR must be returned to the processor for corrections.

## Student Eligibility

Policies that govern student eligibility are established by both the U. S. Department of Education and the post-secondary institution. The federal policies are the same regardless of the institution one attends, but the institutional policies may vary.

Students must meet the following eligibility criteria in order to receive federal financial aid:

- A. Have financial need;
- B. Have a high school diploma or GED;
- C. Be enrolled as a regular student in an eligible program;
- D. Be a U. S. Citizen or eligible noncitizen;
- E. Have a social security number;
- F. Be making satisfactory academic progress;
- G. Be registered with Selective Service, if required;
- H. Not be in default on any loan or owe a refund on any grant made at any institution under Title IV of the Higher Education Act of 1965, as amended.

The amount of financial aid a student is eligible to receive is based on the Expected Family Contribution (EFC) assigned by the U. S. Department of Education, the cost of attendance at Drake State, the student's enrollment status, whether the student is enrolled in a certificate or associate degree program and other information provided by the student.

# Financial Aid Programs

**Federal Pell Grants** are federal funds, available to undergraduate students who have not earned a Bachelor's or professional degree. These funds do not have to be repaid, unless the student withdraws or drops out of school. The amount will vary each term based on the student's enrollment status (full-time, three-quarter time, half time or less than half time). Any Pell funds not used in the fall and spring terms will be carried over into the summer term. Students must reapply for Federal Pell Grants each academic year.

# Federal Supplemental Educational Opportunity Grant (SEOG)

This grant is awarded to Pell Grant students with the lowest Expected Family Contribution (EFC) and does not have to be repaid, unless the student withdraws or drops out of college. Federal funds are allotted to the College to award to students with exceptional financial need. The funds are awarded on a first come, first served basis. If the student fails to attend classes and the award drops off his/her account, the grant will be redistributed to other eligible students.

# Federal Work-Study (FWS)

This is a program that allows students to earn funds for their education. The current pay rate is \$7.54 per hour (subject to change) and is limited to a maximum of 19 hours per week. All eligible students indicating an interest in FWS will be considered for these limited funds by completing a work-study application located in the Financial Aid Office. Most job placements are on campus and work hours are usually after classes each day. Hiring is competitive and all interested students may not be able to be accommodated.

# Other Types of Assistance

Institutional Scholarships are awarded on a competitive basis to applicants. PRIORITY DEADLINES ARE ESTABLISHED EACH SEMESTER AND ARE POSTED ON THE Drake State's WEBSITE AS WELL AS THE FINANCIAL AID OFFICE. Most scholarships are used to recruit top quality students from local high schools but are also available to returning students. The two types of institutional scholarships awarded by the college are academic and leadership.

**Academic scholarship** recipients must have and maintain a 3.0 or better GPA on a 4.0 scale and maintain a full-time enrollment status. These scholarships cover the cost of tuition and mandatory fees and are renewed each enrollment status, whether the student is enrolled in a certificate or associate degree program. Scholarship recipients are required to sign a contract outlining the requirements for maintaining eligibility.

**Leadership scholarship** recipients must have and maintain a 2.5 or better GPA on a 4.0 scale and maintain a full-time enrollment status. These scholarships cover 50% of tuition and mandatory fees and renewed each enrollment status, whether the student is enrolled in a certificate or associate degree program. Scholarship recipients are required to sign a contract outlining the requirements for maintaining eligibility.

**Vocational Rehabilitation** Students with documented disabilities who have been awarded funds for training by the state may see a Financial Aid Counselor to have their award entered into the system for processing.

**Employer Educational Assistance** Students whose employers provide educational benefits must provide documentation of this benefit from his/her company to a Financial Aid Counselor to be entered into the system for processing.

## Verification Policy

Students may be selected on a random basis by the federal government or the Financial Aid Office to verify the following items: (1) family income, (2) taxes paid, (3) family size, (4) number of family members other than parents attending a postsecondary institution, and (5) any other item identified by the Office of Financial Aid. Failure to submit the requested documentation will cause the student to forfeit entitlement to financial aid. Students needing to correct their Student Aid Reports (SAR) as a result of verification will be notified at the time of verification or shortly thereafter by mail, email or phone.

# **Awarding Policy**

Students must have completed all required financial aid forms prior to the first day of the semester to avoid having to pay the initial cost of tuition, fees, books, and supplies themselves. Financial aid forms and materials submitted after the beginning of the semester will be processed as quickly as possible. Because FSEOG funds are limited, these funds are awarded on a need basis until funds are exhausted. Federal Work Study is awarded on an ongoing basis to eligible students with interest in, and the skills required for the job assignment.

Please Note: If a student's schedule includes a mini-term course that begins midterm, the amount of the Pell Grant award may change when the mini-term begins. The Office of Financial Aid may be contacted to determine if there will be an adjustment to the Pell Grant award.

# Dependent/Independent Policy

The Federal Government has identified, for student financial assistance programs, certain categories of students who must be considered Independent financial aid applicants. For 2018-2019, a student is considered an independent financial aid applicant if s/he meets one of the following criteria:

- A. Must be 24 years of age prior to January 1 of the application year;
- B. Is a veteran of the U.S. Armed Forces;
- C. Is on active duty in the U.S. Armed forces;
- D. Is an orphan or ward of the court;
- E. Is/was emancipated minor;
- F. Is/was in legal guardianship;
- G. Has a legal dependent other than a spouse;
- H. Is a married student;
- Is a homeless child/youth;
- J. Is determined homeless by HUD;
- K. At risk for homelessness;
- L. Is working on a masters/doctoral program;
- M. Has a child/children who receive more than half of their support from you.

An Independent financial aid applicant is not required to submit parental information in the application process. However, if the independent applicant is married, spousal information must be reported.

A student who cannot meet at least one of the criteria is considered a dependent applicant and must provide parental information in the application process.

## Special Circumstances

Eligibility is normally based upon the prior year's income. Under certain circumstances, however, eligibility may be based on the current year's income. Death of a parent or a spouse, separation or divorce of a parent or a spouse, loss of income due to natural disaster, or unemployment would allow students to file for special conditions and base eligibility on the current year's income. A student with one of these conditions should contact the Director of Financial Aid.

## **Disbursement Information**

Federal Pell Grant: Pell Grant awards are based on the federal methodology from the information listed on your FAFSA application. Awards are subject to change if a student is selected for verification, enrolled in a program that does not lead to an Associates' Degree, enrolled less than full-time or fails to maintain satisfactory academic progress according to institutional policies. Recipients may charge tuition and fees to their Federal Pell Grant account. Students with small entitlements will be required to pay the difference. Remaining balance checks will be disbursed 14 days after the published disbursement date. Students enrolled in mini-session courses or courses with a late start date may not be eligible to receive a check or may receive miscellaneous balance checks based on actual enrollment hours for the first mini-session with additional funds being released after the second session begins. Students may call or come by the Financial Aid Office to inquire about their eligibility. Students who make a change in their course schedule (See Return of Title IV Funds Policy for additional information) or whose financial aid file is completed during the first two weeks of the semester will be mailed a check approximately two

weeks after the first disbursement of checks. After the initial disbursement, checks will be processed biweekly.

**Federal Supplemental Educational Opportunity Grant (FSEOG):** The FSEOG checks will be processed and mailed to students approximately four (4) weeks after the official Drop/Add period ends.

**Alabama State Grant (ASG):** The ASG checks will be processed and mailed upon receipt of funds from the Alabama Commission on Higher Education in Montgomery.

**Federal College Work Study:** Time sheets are due in the Financial Aid Office on the 19th day of each month unless otherwise notified. Timesheets turned in after this date will receive payment the following month. Checks are available on the last working day of the month.

**Scholarships:** Recipients may charge tuition and mandatory fees to their scholarship account. Scholarships do not pay for repeated courses or books.

# Satisfactory Academic Progress

The academic records of all students receiving federal financial aid are reviewed each term. Students are required to be in good standing and maintain Satisfactory Academic Progress (SAP). The academic records of all students are reviewed based on: (1) the number of credit hours attempted and percentage of credit hours completed; (2) cumulative grade point average (GPA); and (3) maximum time frame allowed to complete degree requirements.

# Measure of Progress

Note: Letter grades of W, I, and F are counted as hours attempted but not earned. All transferred in courses from other institutions, course forgiveness and academic bankruptcy are counted as attempted hours.

Qualitative Measure – Grade Point Average (GPA) Requirements: All students receiving Title IV aid will be expected to meet or exceed a 2.0 cumulative GPA based on the total number of hours attempted in his/her degree or certificate program.

Quantitative Measure – Maximum Time Frame: Students receiving financial aid are expected to complete their course of study within a time period not to exceed 1.5 times the normal length of their program.

#### Financial Aid Probation and Termination of Aid

Satisfactory Academic Progress is measured at the end of each term after grades have been posted to determine student's current status. Students not meeting the Satisfactory Academic Progress requirements including both the measure of progress requirements (GPA) and the maximum time frame requirements will be placed on financial aid warning. During this period, students may be awarded financial aid for one additional semester to re-establish "satisfactory progress." Students not meeting the above requirements during the warning period will be suspended from receiving financial aid. A student who desires to appeal the suspension of his/her financial aid award(s) may do so by notifying the Financial Aid Appeal Committee in writing. The appeal must clearly state the reason/(s) the student failed to make satisfactory academic progress and his/her plan of action to correct the deficiency. Supporting documentation should also be included. The Committee will review all requests and notify the students and the Financial Aid Office of their decision. The Appeal Committee's decision is final.

**Warning Period:** If a student is not maintaining satisfactory academic progress, then the student will be placed on a warning status. No action is required from the student. An email will be sent to the student's Drake email account to notify the student of their current status and time frame for

maintaining satisfactory academic progress. Students can view their Satisfactory Academic Progress status by logging on to their Self Service Account in Banner.

**Probationary Period:** At the end of a warning period if a student is not maintaining satisfactory academic progress, the student will have the option to file an appeal to request a reinstatement of financial aid funds or become a cash-paying student.

- If the appeal is approved, the student will be placed on a probationary period and must abide by the guidelines listed in their academic plan.
- If the appeal is rejected, the student must become a cash-paying student until he/she achieves good satisfactory academic standing.

Loss of Eligibility: If at the end of a probation period a student is not meeting satisfactory academic progress, the student must become a cash-paying student. Once the student is meeting satisfactory academic progress, the student's financial aid can be reinstated.

**Pell Grant Duration of Eligibility:** The duration of a student's eligibility to receive Pell Grant is 12 semesters. Calculation includes all earlier years of the student's receipt of Pell.

Students who do not meet these standards will be ineligible for Title IV federal financial aid.

A Title IV federal financial aid recipient who is enrolled in a developmental course may not enroll in the same course more than three times and continue to receive financial assistance. A Title IV federal financial aid recipient may not be paid for more than 30 semester hours of developmental work. Each institution shall provide students with an appeal process in accordance with federal regulations.

A student who wishes to be considered for financial aid after suspension must bring the academic record into compliance with the qualitative and quantitative measures while attending school at his/her own expense. When the student is in compliance with the satisfactory academic progress policy, the student's financial aid status will be reinstated.

All transfer and re-admitted students must meet the minimum grade point standards indicated above in order to be eligible for financial aid.

#### RETURN OF TITLE IV FUNDS WHEN A STUDENT WITHDRAWS

## Withdrawal - Federal Policy

A student is not entitled to 100 percent of his/her federal grant(s) until s/he has completed 60% of the semester. In most cases, the student would have received 100 percent of his/her grant before that time. Therefore, if a student receives a federal grant and withdraws before 60 percent of the term has passed, s/he will likely owe a portion of the grant back to the Pell grant program.

## Complete Withdrawal

A student who withdraws completely before completing 60% percent of any given term may be required to return a portion of the Title IV financial aid grants he/she received (excluding Federal Work-Study wages).

The amount to be returned is based on the concept of "earned" and "unearned" federal financial aid. The percentage of time enrolled determines the percentage of earned aid. For example: If a student attends through the first 25 days of a 100-day term, the percentage of earned aid is 25 percent. The remaining 75 percent of the aid received is therefore unearned and must be returned to the federal financial aid programs.

In some circumstances a student may be required to repay a portion of the unearned aid received. Each student who owes a repayment will be notified in writing of the requirement to repay Title IV funds. If a student owes a prior balance for the previous year, s/he may use up to \$200 of the new year's award to pay the past balance.

# If s/he fails to repay unearned Title IV funds, his/her eligibility for federal financial aid will be terminated.

The requirements to return federal financial aid are separate from the College's refund policy. Therefore, a student may still owe funds to the College to cover unpaid institutional charges. The College may also charge you for any federal financial aid program funds that were required to be returned.

If a student completely withdraws after completing 60 percent of the term, no repayment is required as s/he is considered to have earned 100 percent of his/her award for the term.

Any grant money a student has to repay is considered a federal overpayment. The student must either repay that amount in full or make satisfactory arrangements with either Drake State or the Department of Education to repay the amount.

The repayment or arrangements for the repayment must be made within 45 days of the date the student is notified of the overpayment or the student will lose further eligibility for all federal aid for attendance at any college until the debt is paid in full.

The withdrawal may cause him/her to be placed on financial aid probation because he/she has not met the Satisfactory Academic Progress requirements of completing 2/3 of all classes attempted.

#### **Unofficial Withdrawal**

A student who stops attending all of his/her classes before 60% of the term is completed without completing a withdrawal form or notifying his instructors of his intent to return to classes, will automatically be classified as a failure to pass due to attendance and will be reported to the Department of Education. S/He may then be required to repay a portion of the aid s/he has received based on a midpoint date used as the date of determination. This will also cause him/her to be placed on financial aid probation because s/he has not met the Satisfactory Academic Progress requirements of completing 2/3 of all classes attempted.

#### **VETERANS AFFAIRS**

The Veterans Affairs representative is located in the Financial Aid office. The Office of Veterans Services is responsible for providing assistance to veterans, active duty military personnel, and dependents of veterans enrolled at Drake State.

Services available include:

- A. Referral services;
- B. General and specific information regarding available benefits;
- C. Assistance in filing claims for such benefits;
- D. Reporting of enrollment information.

Benefits for veterans include:

A. Montgomery GI Bill (Chapter 30);

- B. Post 911 GI Bill (Chapter 33);
- C. Montgomery GI Bill SR (Chapter 1606);
- D. Reserve Education Assistance Program (REAP/Chapter 1607);
- E. Dependent Educational Assistance (DEA/Chapter 35);
- F. Alabama National Guard Education Assistance Program (ANGEAP);
- G. Alabama GI Dependent Scholarship;
- H. Veterans Vocational Rehabilitation (Chapter 31).

Any student in the Alabama National Guard or Reserve component is responsible for notifying instructors of orders for military leave. S/he will be terminated from all classes, and upon return, a reentry form will be processed. If the designated time frame for return is not adhered to, the Department of Veterans Affairs will be notified of the termination, and all educational payments will cease. If a veteran terminates educational training before the end of a term, the VA will determine liability for repayment of benefits.

A veteran receiving VA benefits is required to pre-register for classes. Failure to meet this requirement may result in termination or delay of monthly benefits. It is the student's responsibility to notify the College's VA representative of any change in enrollment.



# **ACADEMIC POLICIES**

## **GRADES AND STANDARDS OF ACADEMIC PROGRESS**

## **Grades for Courses Creditable Toward Graduation** (Based on 4.00 Scale)

To be eligible for graduation, a student must earn a 2.00 cumulative GPA in all courses attempted at the College. The calculation of the GPA for graduation does not include grades earned in institutional credit courses. A course may be counted only once for purposes of meeting graduation requirements. The GPA is calculated based on quality points earned as defined in the table below:

# **Grades Quality Points**

A - Excellent (90-100 Average)	4 per cr. hr.
B - Good (80-89 Average)	3 per cr. hr.
C - Average (70-79 Average)	2 per cr. hr.
D - Poor (60-69 Average)	1 per cr. hr.
F - Failure (below 60 Average)	0 per cr. hr.

I-Incomplete. The grade of "I" is given when the student fails to complete all of the requirements for a course during the semester. A grade of "I" can be awarded when a student has completed 75% of their coursework and is unable to complete the course due to documented hardship. An incomplete form has to be initiated by the student and approved by the instructor and the dean's office before an "I" is granted. A grade of "I" must be removed prior to the end of the following academic semester otherwise the "I" becomes an "F".

W-Withdrawal. The grade of "W" is given when the student withdraws from the course up to the mid-semester withdrawal period. No quality points are awarded for a "W" grade. Course credit hours ARE NOT COUNTED in the cumulative hours for GPA (grade point average) calculation.

# STANDARDS OF SATISFACTORY ACADEMIC PROGRESS FOR COURSES CREDITABLE TOWARD GRADUATION

# Grade Point Average Calculations (GPA)

A student's GPA will be calculated using the following formulas; only courses creditable toward graduation will be included in the computation.

Cumulative GPA=	Total Quality Points Earned Total Hours Attempted	
Semester GPA =	Semester Quality Points Earned	
	Credit Hours Attempted	
	During Semester	

The GPA is always expressed as a number between 0.00 and 4.00, and is usually rounded to the nearest 0.01. The following are examples of the relationship between GPA and letter grades:

GPA	Letter Grade
0.00	represents an F average
1.00	represents a D average
2.00	represents a C average
3.00	represents a B average
4.00	represents an A average

# Satisfactory Progress Requirements

The following GPA levels must be maintained by the student in order for the student to maintain Clear Academic Status.

- 1. Students who have attempted 12-21 credit hours at Drake State must maintain a 1.5 cumulative GPA.
- 2. Students who have attempted 22-32 credit hours at Drake State must maintain a 1.75 cumulative GPA.
- 3. Students who have attempted 33 or more credit hours at Drake State must maintain a 2.00 cumulative GPA.

# Variance in Requirements for Nursing Students

Due to licensure requirements set forth by the Alabama Board of Nursing, satisfactory progress in the Nursing Program requires that students maintain a 75 academic average in all course work undertaken, with the exception of general education course work. Academic average of 75 and above will carry the letter grade normally associated with the average; academic averages below 75 will carry the letter grade of F. This special grading scheme applies to Nursing students only.

## Intervention for Students Falling Below Academic Standards of Progress

When a student is placed on Academic Warning, Academic Probation, One Semester Academic Suspension, or One Calendar Year Academic Suspension, College officials may provide intervention for the student by taking steps including, but not limited to, imposing maximum course loads, requiring a study skills course, and/prescribing other specific courses.

#### **Grades for Courses Not Creditable Towards Graduation.**

Grades	Quality Points	
S- Satisfactory	0 Per Credit Hour	
U- Unsatisfactory	0 Per Credit Hour	
I- Incomplete	0 Per Credit Hour	

## STANDARDS OF ACADEMIC PROGRESS AND TRANSFER STUDENTS

- 1. A transfer student who is admitted on CLEAR academic status is subject to the same standards of academic progress as a "native" student. Grades accrued at other regionally accredited postsecondary institutions are not included in any GPA calculation.
- 2. A transfer student who is admitted on Academic Probation retains that status until the student has attempted at least 12 credit hours at the institution. If, at the conclusion of the semester in

- which the student has attempted a total of 12 or more credit hours at Drake State, the Cumulative GPA is below 1.5, the student will be suspended for one semester. The transcript will read SUSPENDED-ONE SEMESTER.
- 3. If, at the conclusion of the semester in which the transfer student admitted on Academic Probation; the student has attempted a total of 12 or more credit hours at Drake State the cumulative GPA is 1.5 or above, the student's status is clear.

## COURSES NOT CREDITABLE TOWARD GRADUATION

Developmental Courses are designed to address academic deficiencies of students as identified by the institution's testing program. Developmental courses have course numbers below 100. These courses are assigned a letter grade of A, B, C, D, or F.

## **COURSE FORGIVENESS POLICY**

- 1. If a student repeats a course, the last grade awarded (excluding grades of W and WP) replaces the previous grade in the computation of the cumulative grade point average. The grade point average during the term in which the course was first attempted will not be affected.
- 2. When a course is repeated more than once, all grades for the course, excluding the first grade will be employed in computation of the cumulative grade point average. Official records at the institution will list each course in which a student has enrolled.
- 3. It is the student's responsibility to request of the registrar that the forgiveness policy be implemented.

## ACADEMIC BANKRUPTCY

- a. A student may request in writing to the Registrar to declare academic bankruptcy under the following conditions:
  - i. If fewer than three (3) calendar years have elapsed since the semester/term for which the student wishes to declare academic bankruptcy on all course work taken during that one semester/term provided the student has taken a minimum of 18 semester credit hours of course work at the institution since the bankruptcy semester term occurred. All course work taken; even hours completed satisfactorily, during the semester/term for which academic bankruptcy is declared will be disregarded in the cumulative grade point average.
  - ii. If three (3) or more calendar years have elapsed since the most recent semester term for which the student wishes to declare bankruptcy, the student may declare academic bankruptcy, on all course work taken from 1 to 3 semesters provided the student has taken a minimum of 18 semester credit hours of course work at the institution since the bankruptcy semester term occurred. All course work taken, even hours completed satisfactorily, during semester/term(s) for which academic bankruptcy is declared, will be disregarded in the cumulative grade point average.
- b. When academic bankruptcy is declared, the term "ACADEMIC BANKRUPTCY" will be reflected on the transcript for each semester term affected.
  - When academic bankruptcy is declared, the transcript will reflect the semester/term of its implementation and the transcripts will be stamped 'ACADEMIC BANKRUPTCY IMPLEMENTED".
- c. A student may declare academic bankruptcy only once.

- d. Implementation of academic bankruptcy at an institution does not guarantee that other institutions will approve such action. Respective transfer institutions will make this determination.
- e. A student who is using Veterans Administration educational benefits must consult the Veteran's Education Representative before applying for academic bankruptcy. Veteran students who apply for and are granted institutional academic bankruptcy are ineligible to recoup any Veteran educational benefits previously used for the periods relevant to the academic bankruptcy.

## **APPLICATION OF STANDARDS OF PROGRESS**

# **Enrollment Status Requirements**

- 1. When the Cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the institution, the student's status is clear.
- When a student's Cumulative GPA is below the GPA required for the number of credit hours attempted at the institution, the student is placed on Academic Warning. The transcript will read Academic Warning.
- When the Cumulative GPA of a student on Academic Warning remains below the GPA required
  for the total number of credit hours attempted at the institution but the Semester GPA is 2.00 or
  above, the student remains on Academic Warning, and shall be noted on the Academic
  Transcript.
  - When the Cumulative GPA of a student who is on Academic Warning remains below the GPA required for the total number of credit hours attempted at the institution but the Semester GPA is below 2.00, the student is placed on Academic Probation. The transcript shall read Academic Probation.
  - When the Cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the institution, the student's status is clear.
- 4. When the Cumulative GPA of a student who is on Academic Probation remains below the GPA required for the total number of credit hours attempted at the institution but the Semester GPA is 2.00 or above, the student remains on Academic Probation, with the same notation on the academic transcript.
  - When the Cumulative GPA of a student who is on Academic Probation remains below the GPA required for the total number of credit hours attempted at the institution and the Semester GPA is below 2.00, the student is suspended for one semester. The transcript will read SUSPENDED—ONE SEMESTER.
  - When the Cumulative GPA of a student who is on Academic Probation remains below the GPA required for the total number of credit hours attempted at the institution and the Semester GPA is below 2.00, the student is suspended for one semester. The transcript will read SUSPENDED—ONE SEMESTER.
  - When the Cumulative GPA is at or above the GPA required for the total number of credit hours attempted at the institution, the student's status is clear.
- 5. The student who is suspended for one semester may appeal. If, after appeal, the student is readmitted without serving the one semester suspension, the transcript will read SUSPENDED—ONE SEMESTER READMITTED UPON APPEAL.
  - The student readmitted upon appeal re-enters the institution on Academic Probation. The student who serves a one semester academic suspension re-enters the institution on Academic Probation.

6. A student who is on Academic Probation after being suspended for one semester (whether the student has served the suspension or has been readmitted upon appeal) without having since achieved CLEAR academic status and whose Cumulative GPA falls below the level required for the total number of hours attempted at the institution but whose Semester GPA is 2.00 or above, will remain on Academic Probation.

A student who is on Academic Probation, after being suspended for one semester (whether the student served the suspension or was readmitted upon appeal) without having since achieved CLEAR academic status and whose Cumulative GPA remains below the level required for the total number of hours attempted at the institution and whose Semester GPA is below 2.00 will be suspended for one calendar year. The transcript will read SUSPENDED—ONE YEAR, until the student achieves the required GPA.

The student suspended for one calendar year may appeal. If, upon appeal, the student is readmitted, the transcript will read SUSPENDED—ONE YEAR/READMITTED UPON APPEAL. The student who is readmitted upon appeal re-enters the institution on Academic Probation. The student who serves the calendar year suspension re-enters the institution on Academic Probation.

All applicable academic designations except clear will appear on the student's transcript.

## Process of Appeal for Readmission

If a student declares no contest of facts leading to suspension but simply wishes to request consideration for readmission, the student may submit a request in writing for an "appeal for readmission" to the Admissions Committee within six school days of receipt of the notice of suspension. During the meeting of the Admissions Committee, which shall not be considered a "due process" hearing but rather a petition for readmission, the student shall be given an opportunity to present a rationale and/or statement of mitigating circumstances in support of immediate readmission. The decision of the Admissions Committee, together with the materials presented by the student, shall be placed in the College's official records. Additionally, a copy of the written decision shall be provided to the student. Equity, reasonableness, and consistency are the standards by which such decisions are measured. The Registrar is the contact person to begin the appeal process.

#### **Academic Honors**

Selected Academic Honors shall be provided to recognize and promote notable student achievement. Courses carrying grades other than A-F will not be used to calculate the semester GPA nor counted toward the minimum course load requirement for inclusion on these lists.

- 1. Dean's List A Dean's List will be compiled at the end of each semester. In order to qualify for the Dean's List a student must maintain a semester GPA between 3.50-3.99, and must be enrolled in a minimum of 12 credit hours of college-level-work.
- 2. President's List A President's List will be compiled at the end of each semester. In order to qualify for the President's List a student must attain a semester GPA of 4.00 and must be enrolled in a minimum of 12 credit hours of college-level work.

#### **DEFINITIONS OF TERMS**

#### **Drop and Add Period**

The three school days immediately following Late Registration are designated for Drop and Add. During this period students may drop or add courses to their schedule after receiving approval from their advisor.

#### **Full-Time Status**

A student who is enrolled in 12 or more semester hours of credit courses is considered full-time.

#### **Three-Fourth Time Status**

A student who is enrolled in 9, 10, or 11 semester hours of credit courses.

#### **Half-Time Status**

A student who is enrolled in 6, 7, or 8 semester hours of credit courses is considered half-time.

#### **Registration Period**

Two days at the beginning of each semester when all students should complete the registration process.

#### **Late Registration Period**

The two school workdays immediately following the two-day Registration Period. All students who failed to complete the registration process should do so during Late Registration. Students registering during Late Registration will be required to pay a late fee of \$25.00 in addition to all other fees. Students will not be allowed to register after late registration without permission from the Dean of Support Services or Dean of Instruction.

#### Withdrawal Period

The two school days immediately following Drop and Add starts as the regular Withdrawal Period and continues through the mid-semester time frame. During this period students may withdraw from courses and receive a grade of "W". A grade of "W" does not affect a student's GPA standing.

## **Clear Academic Status**

The status of a student whose cumulative GPA is at or above the level required by the policy for the number of credit hours attempted at the institution.

# **Academic Warning**

- The status of a student whose academic status the previous semester was CLEAR and whose cumulative grade point average falls below the level required by the policy for the total number of credit hours attempted at the institution and whose semester GPA for that semester was below 2.00; or
- The status of a student who was on Academic Probation the previous semester and whose cumulative GPA for that semester remained below the level required or the total number of credit hours attempted at the institution but whose semester GPA for that semester was 2:00 or above; or
- 3. The status of a student who has reentered the institution after being suspended for one semester or one year (or after being granted readmission upon appeal).

### **One Semester Academic Suspension**

The status of a student who was on Academic Probation the previous semester but who has never been suspended or who, since suspension, had achieved Clear Academic Status and whose cumulative GPA that semester was below the level required by this policy for the total number of credit hours attempted at the institution and whose semester GPA for that semester was below 2.00.

# **One Calendar Year Academic Suspension**

The status of a student who was on Academic Probation the previous semester, and who had been previously suspended without since having achieved Clear.



# **GRADUATION REQUIREMENTS**

## **BSS220- Professional Transition**

All new students must complete BSS220 during the final semester of coursework in the program award for which they intend to graduate. This institutional course provides final preparation for graduation and entry into the new career field chosen by the student.

# Associate in Applied Science Degree

A student shall be awarded the Associate in Applied Science degree upon satisfactory completion of the requirements of the specific program as specified in the program outline.

#### A student must:

- 1. Satisfactorily complete 60-76 semester hours of college credit in an approved program of study, including prescribed general education courses.
- 2. Earn a 2.00 an overall cumulative GPA in all courses attempted at the College. The calculation of the GPA for graduation shall not include grades earned in institutional credit courses. A course may be counted only once for purposes of meeting graduation requirements.
- 3. Complete at least 25 percent semester credit hours at the College granting the degree.
- 4. Be enrolled during the semester in which the degree is earned; or, with approval of the dean of instruction, within a calendar year of the last semester of attendance; or receive the degree by transferring from a regionally accredited institution no more than the last ten hours required for completion of the program with a minimum grade of "C" in the courses transferred. Those students

enrolled in linkage programs explicitly approved in writing by the Chancellor who have successfully completed a prescribed program mutually acceptable to the colleges involved are exempted from this requirement.

- 5. Make sure that the program instructor submits a recommendation for graduation to the Dean of Instruction.
- 6. Fulfill all financial obligations to the college.
- 7. Pay the graduation fee to participate in the graduation ceremony.

The Dean of Instruction will review the recommendation for graduation submitted by the program instructor for compliance with school standards. The Dean will either approve or disapprove the recommendations; if disapproved, a reason will be given and corrective action needed by the student will be indicated.

#### Certificates

A student may be awarded a credential other than a degree upon satisfactory completion of the requirements of the specific program as specified in the program outline.

#### A student must:

- 1. Satisfactorily complete an approved program of study.
- 2. Earn a 2.00 cumulative GPA in all courses attempted at the College. The calculation of the GPA for graduation shall not include grades earned in institutional credit courses. A course may be counted only once for purposes of meeting graduation requirements.
- 3. Complete at least 50% of the semester credit hours at the College granting the award.
- 4. Be enrolled during the semester in which the award is earned; or, with approval of the dean of instruction, within a calendar year of the last semester of attendance; or receive the award by transferring from a regionally accredited institution no more than the last ten hours required for completion of the program with a minimum grade of "C" in the courses transferred.
- 5. Make sure that the program instructor submits a recommendation for graduation to the Dean of Instruction.
- 6. Fulfill all financial obligations to the college including the payment of the graduation fee.

The Dean of Instruction will review the recommendation for graduation submitted by the program instructor for compliance with school standards. The Dean will either approve or disapprove the recommendations; if disapproved, a reason will be given and corrective action needed by the student will be indicated.

# Award of Achievement

Students who complete one or more courses and are not interested in meeting the requirements of higher awards, will qualify for this award which simply indicates completion of the courses taken. A student must:

- 1. Complete one or more courses.
- 2. Request that the registrar issue the "Award of Achievement."
- 3. Fulfill all financial obligations to the college including payment of the fee for issuing the award.

# **GRADUATION HONORS**

# Graduation Honors for Associate Degree Awards

Superior academic achievement by graduating students shall be recognized by the following designations on transcripts:

Designated Honor	GPA		
Graduation with	3.90 - 4.00		
Highest Honors			
(Summa Cum Laude)			
Graduation with High	3.70 - 3.89		
Honors			
(Magna Cum Laude)			
Graduation with	3.50 - 3.69		
Honors (Cum Laude)			
Graduation Honors for Certificate Awards			
Graduation with	3.50-4.00		
Distinction			

# *GPA Calculation Procedures for Determining Honor Graduates*

Calculation of the GPA for graduation honors shall be identical to that method used to calculate the GPA to fulfill graduation requirements for the degree or certificate being earned. In addition, in order to be eligible for a graduation honor, the student must have completed 32 semester hours at the College conferring the degree or other formal award.



#### **EDUCATIONAL OFFERINGS**

#### Non Credit Offerings

- Workforce Development
- Adult Education

#### **Credit Offerings**

Educational Programs

#### **Non-Credit Programs**

#### **Workforce Development**

The College is committed to serving its community as the primary provider of workforce development education and training. Through its Workforce Development Division, the College provides a number of services and programs designed to provide workforce development for employers located in the College's service area. These programs, described in the paragraphs below, include Tech Prep, Training for Existing Business and Industry, Continuing Education. Workforce development activities of the College include training for area residents to obtain the Alabama Career Readiness Certificate (CRC), the official State of Alabama workforce readiness credential.

Workforce Development is comprised of two major components: (1) training for existing business and industry, and (2) continuing education and adult skills training, as explained in the following paragraphs.

#### **Training for Existing Business and Industry**

Drake State training for existing business and industry program interfaces with local business and industry in establishing courses and programs dedicated to specifically identified community employment and cross-training needs. Local industries are contacted on a regular basis for the purpose of determining their training concerns as well as making them aware of the institution's training capabilities.

Industry partners of the College regularly pursue specialized training to be coordinated and provided by the College utilizing the College's existing training resources. As a result of this interaction with industry, the College is able to assess market demand for the local service area to determine the training that the institution should provide, whether through Training for Existing Business/Industry (TEBI) programs or regular program instruction.

#### **Continuing Education and Adult Skills Training**

The Continuing Education and Adult Skills Training programs provide the citizens of North Alabama with flexible, innovative career-technical training at a reasonable cost. The College satisfies the needs and academic pursuits of the community by offering developmental studies, noncredit short-term courses, and continuing education courses to fulfill student needs beyond the normal credit programs offered by the Department of Instruction.

The first Continuing Education classes were offered in late spring 2002 and were expanded to include Adult Skills Training, such as the Alabama Ready-to-Work program, in summer 2002. New offerings are added regularly and are listed on the College website.

Drake State provides a spectrum of training opportunities to meet student needs for professional development. In addition to credit programs and customized training for business and industry, these include:

Continuing Education classes, which tend to be general in nature and appeal, short duration, and are generally self-paid.

Adult Skills Training classes can range from a few hours in length to up to a year. They tend to be focused on particular career fields and are intended to serve incumbent or potential workers in that career field. They typically will be paid for by the worker's employer, an outside agency, or funded through a WIA Individual Training Account.

Students taking these classes are admitted to the Continuing Education/Adult Skills Training programs of the College and considered separate from the credit degree and certificate programs of the College. For admission to offer the credit programs of the College, a separate application form must be completed and submitted to the Director of Admissions.

#### **Adult Education / GED Preparation**

In January 2008, the State Board of Education authorized Drake State to offer Adult Education classes to residents of Madison County, Alabama. Overseen by a Director of Adult Education, the program provides the following services:

- Adult Basic Education Classes: Reading, writing, and computing mathematically for learners functioning at or below the 8.9 grade equivalency.
- **GED Preparation Classes**: Reasoning Through Language Arts, Mathematical Reasoning, Science, Social Studies, and the arts for learners functioning at the 9.0-12.9 grade equivalency to prepare them to earn the State of Alabama High School Equivalency Diploma.
- Transition Programs: Instruction specifically designed to prepare adult learners to enter
  postsecondary education, higher education, training programs and/or to improve their
  employability.
- College Preparatory Classes: Remedial instruction in the areas of reading, writing and computing mathematically that is designed to prepare learners who are high school graduates, but performing below the 12.9 grade equivalency.
- English Literacy Classes: Classes providing non-English speaking individuals with the language skills needed to succeed in other educational/training programs and to cope more effectively with the challenges of their daily lives.
- High School Diploma Option (HSO): The Alabama Non-Traditional High School Diploma Option
  Program is an alternative to the GED high school equivalency, designed for students who have
  completed all of the required credits for graduation but failed the Alabama High School
  Graduation Exam (AHSGE), or students who have dropped out of the traditional high school
  setting.

These classes are offered at no cost to the students, and are designed to be open-entry, open-exit. Any individual who is at least 16 years of age and not enrolled in another educational program is eligible to participate in the Adult Education Program. Students can start taking classes at any time during the year. Classes are offered on-campus and at satellite locations around the city, with meeting times in the mornings, afternoons, and evenings in order to accommodate students' various schedules.

For more information about Drake State's Adult Education program, please contact the Adult Education Director at 256-551-5211, or visit our website.

#### **Alabama Career Readiness Certificate**

Drake State incorporates the Alabama Career Readiness Certificate preparation and assessment into all of its degree and certificate programs. The Career Readiness Certificate (CRC) is an assessment-based credential that gives employers and career seekers a uniform measure of key workplace skills. There are three levels an individual may earn: bronze, silver and gold. The bronze level represents the achievement of the core employability skills for approximately 30% of the jobs. The silver level represents the achievement of the core employability skills for approximately 65% of the jobs. The gold level represents the achievement of the core employability skills for approximately 90% of the jobs.

Getting a Career Readiness Certificate allows students to show prospective employers that they possess the basic skills employers are looking for. Even if students have a high school diploma (or GED) or a post-secondary degree, the CRC further verifies that an individual can handle the kinds of tasks – finding information, reading instructions and directions, and working with figures – that are common in today's workplace.

Drake State utilizes the WorkKeys™ assessment system to establish career readiness scores.

## INSTRUCTIONAL PROGRAMS

## **Directory of Programs**

Program	Program Abbreviation	Degree	Division	Page
Advanced Manufacturing, Machine Tool	MTT	AAS, CER, STC	Advanced Manufacturing	
Advanced Manufacturing, Mechatronics	INT,MTT, WDT	AAS, CER, STC	Advanced Manufacturing	
Advanced Manufacturing, Welding	WDT	AAS, CER, STC	Advanced Manufacturing	
Advanced Manufacturing, Electrical Technology	ELT	AAS, CER, STC	Advanced Manufacturing	
Advanced Manufacturing, Engineering Design	DDT	AAS, CER, STC	Advanced Manufacturing	
Associate in Arts		AA	General and Developmental Education	
Associate in Science		AS	General and Developmental Education	
Automotive Service Technology	ASE	AAS, STC	Applied Services Technologies	
Business Administration – Accounting	BU1	AAS, STC	Business, Computer Science and Engineering Technologies	
Business Administration – General Business	BUS	AAS, STC	Business, Computer Science and Engineering Technologies	
Business Administration – Management	BU3	AAS, STC	Business, Computer Science and Engineering Technologies	
Computer Information Systems	CIS	AAS, STC	Business, Computer Science and Engineering Technologies	
Cosmetology Instructor Training	CIT	STC	Applied Services Technologies	
Culinary Arts	CUA	AAS, STC	Applied Services Technologies	
Heating and Air Conditioning	ACR	AAS, STC	Applied Services Technologies	
Medical Assistant Technology	MAT	AAS, STC	Health Sciences Technologies	
Registered Nursing	NUR	AAS, STC	Health Sciences Technologies	
Salon Management – Barbering	SA3	CER, STC	Applied Services Technologies	

Salon Management –	SAL	AAS, STC	Applied Services
Cosmetology			Technologies
Salon Management –	SA2	CER	Applied Services
Esthetics			Technologies
Salon Management –	SA4	STC	Applied Services
Nail Care			Technologies

#### **Institutional Requirements**

**ORI 101- Orientation to College** is required of all students except transfer students who have transferred 12 or more semester hours prior to transferring to Drake State.

Upon entry to our college program, students will be provided with a WorkKeys™ assessment as part of the Orientation to College course to identify current career readiness scores.

**BSS220- Professional Transition Course** is required for all new entering students during the final semester of coursework in the program award for which they intend to graduate. This institutional course provides final preparation for graduation and entry into the new career field chosen by the student.

#### **Instructional Programs**

Programs of study offered at Drake State include university parallel programs, career programs and certificate programs.

## University Parallel Programs: Associate Degrees

Associate degrees require a minimum of 61 credit hours of coursework. The Directory of Programs in the previous section gives a list of degree programs Drake State offers.

A university parallel program allows a student to complete the first two years of a baccalaureate degree. These programs are designed to transfer to a four-year college or university. Drake State offers two transfer degrees:

Associate in Arts (A.A.) Associate in Science (A.S.)

The Associate in Arts and Associate in Science degrees are awarded to students completing a planned university-parallel program to meet the requirements of the first two years of a Bachelor of Arts or Bachelor of Science degree. Since Area V requirements vary with individual four-year institutions, and all courses will not satisfy these requirements, students must obtain approved university parallel degree plans from the appropriate university. The degree plan will also indicate the courses needed in addition to the general education core to complete the degree.

## ASSOCIATE AND APPLIED SCIENCE DEGREES

Career and Technical programs lead to the Associate in Applied Science degree. These programs are intended to prepare students for specific careers or occupational enhancement and they also include some general education courses. Although these programs are not designed primarily for transfer, many of the courses are transferable to four-year institutions.

## Degrees and Certificates: Certificates and Short Certificates

**Certificate programs** are especially designed for students who wish to prepare for careers or career advancement through short-term, intensive programs.

Many of the college's programs have grouped related courses into certificates requiring 60

hours or less to complete. Students may choose to pursue certificates as alternatives to, or in addition to, associate degrees. There are two levels of these course groupings: (1) Certificates comprised of 30 to 60 credit hours of course work and (2) Short Certificates comprised of 9 to 29 credit hours of course work.

The coursework required for a Career Entry Certificate is generally deemed sufficient for students to acquire the minimum skills required for an entry-level position in the related field. However, they do not include coursework intended to develop the student's critical-thinking and generalized problem-solving skills nor do they include coursework intended to sharpen the student's perspective relative to leadership and supervisory roles and meaningful and productive functioning in overall society. Programs offering associate degrees do so because the college's industry partners have rated the associate degree as a valuable asset in their workforce.

The coursework for Certificate programs are grouped to provide students with industry-specified skill sets deemed necessary for specific tasks within the related industry, and consequently may be used by students and graduates to provide proof of credentials to prospective employers. However, students should be cautioned that employers, when making hiring decisions or considering promotions, place emphasis on completion of degrees in programs that offer them. For most students, obtaining Certificates should be seen as completing building blocks toward meeting career objectives.

#### Transfer Guide

The Associate in Arts and Associate in Science degrees are sets of courses leading to baccalaureate degrees. Associate in Arts and Associate in Science degree students do not officially major in an academic discipline at Drake State. Majors are defined by the institution to which these students transfer.

Associate in Arts and Associate in Science degree students are assigned to advisors on the basis of intended majors or fields of interest indicated. Students planning to transfer to a four-year institution should decide as early as possible the college and program to which they will transfer. Transfer guides have been developed for Alabama's colleges and universities. Drake State provides transfer guides and agreements for state colleges and universities through the Statewide Transfer and Articulation Reporting System (STARS) program. Templates approved by the Articulation and General Studies Committee (AGSC) are available in Drake State advisors' offices and in the Office of Counseling, Advising and Testing. (Also see Internet http://stars.troy.edu.)

STARS is a computerized articulation and transfer planning system used to inform Alabama community college students about degree requirements, course equivalencies and other transfer information pertaining to specific majors at each state-funded four-year institution. STARS is an efficient and effective way of providing students, counselors and educators with accurate information upon which transfer decisions can be based. The STARS database, if used properly, can prevent loss of course credit hours, provide direction for scheduling course work and ease the transition from one institution to another. Students should request their guides or agreements when they meet with their academic advisors during New Student Orientation.

To ensure proper interpretation of the AGSC guides/agreements, students who have completed postsecondary coursework at other institutions should request an evaluation of their courses by their intended transfer institutions before registering for classes at Drake State. While Drake State makes every effort through advising and printed materials to provide accurate information to meet transfer and degree requirements, it is the student's responsibility to select and register for courses needed to meet those requirements.

In addition to following the transfer guide, students are advised to personally contact their transfer schools to verify specific admissions and course requirements for their majors.

For a listing of AGSC templates and/or articulation guides refer to the following link <a href="http://stars.troy.edu">http://stars.troy.edu</a>.

## ADVANCED MANUFACTURING

The Advanced Manufacturing Program prepares individuals to apply basic engineering principles and technical skills to the identification and resolution of production problems in the manufacture of products. It includes instruction in machine operations, production line operations, engineering analysis, systems analysis, instrumentation, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure

The Associate in Applied Science Degree in Advanced Manufacturing (ADM) has options in Additive Manufacturing, Electrical Technology, Engineering Design Technology, Injection Molding, Machine Tool Technology, Mechatronics, Welding Technology, and certificates are also available to shape the fundamentals into different forms in manufacturing of operations.

#### **Electrical Technology**

The Electrical Technology prepares individuals to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems such as residential, commercial, and industrial electric-power wiring; and DC and AC motors, controls, and electrical distribution panels. Includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

#### **Electrical Technology Degree- AAS**

Area I: Written Composition 6 Cr. Hrs.

Course	Title	Cr. Hrs.
ENG101	English Comp. I	3
ENG102	English Comp. II	3

#### Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.		
ART100	Art Appreciation	3		
ART203	Art History I	3		
ENG251	American Literature I	3		
ENG252	American Literature II	3		
ENG261	English Literature I	3		
ENG262	English Literature II	3		
ENG271	World Literature I	3		
ENG272	World Literature II	3		
MUS101	Music Appreciation	3		
PHL206	Ethics & Society	3		
REL100	History of World Religions	3		
REL151	Survey of Old Testament	3		
REL152	Survey of New Testament	3		
SPA101	Introductory Spanish I	3		
SPA102	Introductory Spanish II	3		
SPH106	Fundamentals of Oral			
	Communication	3		
SPH107	Fundamentals of Public			
	Speaking	3		
THR120	Theater Appreciation	3		
THR126	Intro to Theater	3		
Area III: Natural Sciences and				

Mathematics 10 Cr. Hrs.

Note: CIS146, MTH100 or higher and a 4 credit hour science course are required.

Course	Title	Cr. Hi	rs.
CIS146	Microcomputer Application	าร	3
CIS130	Intro to Information System	ns	3
MTH100	Intermediate College Algeb	ora	3
MTH112	Pre-Calculus Algebra		3
MTH113	<b>Pre-Calculus Trigonometry</b>	I	3
MTH115	Pre-Calculus Algebra &		
	Trigonometry		4
MTH120	Calculus and Its Application	ı	3
MTH125	Calculus I		4
MTH126	Calculus II		4
MTH227	Calculus III		4
PHY201	General Physics I		4

Area IV: I Sciences	History, Social and Behavior 3 Cr.			<b>nal Requirements (2 cre</b> NI101 must be taken in	
Course	Title Cr.	Hrs.		BSS220 must be taken i	
ECO231 ECO232	Principles of Macroeconomics Principles of Microeconomics	3	Course	Title	Cr. Hrs.
GEO100	World Regional Geography	3	ORI101	Orientation to College	1
HIS101	Western Civilization I	3	BSS220	Professional Transition	1
HIS102	Western Civilization II	3	200220		_
HIS121	World History I	3	Total AA	S Degree Credit Hours	66
HIS122	World History II	3			
HIS201	US History I	3	Flectrics	al Wiring - CER	
HIS202	US History II	3	Lictifica	il Willing CLIK	
POL200	Intro to Political Science	3	Area I: W	ritten Composition	3 Cr. Hrs.
PSY200	General Psychology	3		1	
PSY210	Human Growth and		Course	Title	Cr. Hrs.
	Development	3	ENG101	English Comp. I	3
SOC200	Intro to Sociology	3	ENGIOI	English Comp. I	3
Area V: P	re-professional, Major and		Area II: H	Iumanities and Fine Arts	3 Cr. Hrs.
Elective (		Irs.	C	m: 1.	C - 11
	r core, 15 electives, 2		Course	Title	Cr. Hrs.
institutio			ART100	Art Appreciation	3
			ART203	Art History I	3
ADM105	Fluid Systems	3	ENG251	American Literature I	3
ADM111	Manufacturing Safety	2	ENG252	American Literature II	3
EL T4.00	Practices	3	ENG261	English Literature I	3
ELT108	DC Fundamentals	3	ENG262	English Literature II	3
ELT109	AC Fundamentals	3	ENG271	World Literature I	3
ELT114	Residential Wiring Methods I	3	ENG272	World Literature II	3
ELT115	Residential Wiring Methods II	3	MUS101	Music Appreciation	3
ELT117	DC/AC Machines	3 3	PHL206	Ethics & Society	3
ELT118	Commercial/Indust. Wiring I		REL100	History of World Religion	
ELT209	Motor Controls I	3	REL151	Survey of Old Testament	3
General I	Electives 15 Cr. Hrs.		REL152	Survey of New Testamen	
		26	SPA101	Introductory Spanish I	3
	253, ELT254, ELT230 and INT1	<i>2</i> 6	SPA102	Introductory Spanish II	3
ADM101	recommended. Precision Measurement	3	SPH106	Fundamentals of Oral	•
ADM101	Quality Control	3	CD114.07	Communication	3
ELT230	•		SPH107	Fundamentals of Public	2
ELT230	Programmable Controls  National Electric Code	<b>3</b> 3	TUD420	Speaking Theater Approximation	3
ELT241	Fluid Power	3	THR120	Theater Appreciation	3 3
ELT219	Industrial Robotics	3	THR126	Intro to Theater	3
ELT254	Robot Maintenance and	,			
LL: 237	Troubleshooting	3			
INT126	Preventive Maintenances	3			
ADM283	CO-OP	3			
	<del>-</del> -	_			

Note: CIS146 and MTH100 or higher are required.

Course	Title Cr. 1	Hrs.
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

#### No Requirements

Area V: Pre-professional, Major and Elective Courses 26 Cr. Hrs. (24 major core, 2 institutional)

Course	Title Cr.	Hrs.
ADM111	Manufacturing Safety	
	Practices	3
ELT108	DC Fundamentals	3
ELT109	AC Fundamentals	3
ELT114	Residential Wiring Methods I	3
ELT115	Residential Wiring Methods II	3
ELT117	DC/AC Machines	3
ELT118	Comm. /Industry Wiring	3
ELT209	Motor Controls I	3

#### *Institutional Requirements (2 credits):*

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101	Orientation to College	1
BSS220	<b>Professional Transition</b>	1

### **Electrical Fundamentals - STC1**

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs

Course	Title	Cr. Hrs.	
ADM111	Manufacturing Safety		
	Practices	3	
ELT108	DC Fundamentals	3	
ELT109	AC Fundamentals	3	
Total STC1 Credit Hours 9			

#### **Preventive Maintenance - STC2**

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 12 Cr. Hrs.

Course	Title	Cr. Hrs.
ADM111	Manufacturing Safety	
	Practices	3
ELT108	DC Fundamentals	3
ELT109	AC Fundamentals	3

INT126	Preventative Maintenan	ice 3	ENG272	World Literature II	3
Total ST	C2 Credit Hours	12	MUS101 PHL206	Music Appreciation Ethics & Society	3
Robotics	<u>s - STC3</u>		REL100 REL151 REL152	History of World Religions Survey of Old Testament Survey of New Testament	3 3 3
Area I: W	ritten Composition	0 Cr. Hrs.	SPA101	Introductory Spanish I	3
Area II: H	Humanities and Fine Arts	0 Cr. Hrs.	SPA102 SPH106	Introductory Spanish II Fundamentals of Oral	3
Area III: <u>Mathema</u>	Natural Sciences and atics	0 Cr. Hrs.	SPH107	Communication Fundamentals of Public Speaking	3
Area IV: Sciences	History, Social and Beh	avioral <u>0 Cr. Hrs.</u>	THR120 THR126	Theater Appreciation Intro to Theater	3
Area V: P	Pre-professional, Major Courses	and 9 Cr. Hrs.	Area III: Na Mathemat	atural Sciences and cics 10 C	r. Hrs.
Course	Title	Cr. Hrs.		1.46, MTH100 or higher and a 4	credit
ADM105 ELT253	Fluid Systems Ind. Robotics	3	nour scien Course	ce course are required.  Title Cr	. Hrs.
Total STO	Robot Maintenance	9	CIS146 MTH100 MTH112	Microcomputer Applications Intermediate College Algebra Pre-Calculus Algebra	3 3 3
Enginee	ring Design		MTH113 MTH115	Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry	3
Enginee	ring Design Degree - A	<u>AAS</u>	MTH120 MTH125	Calculus and Its Application Calculus I	3
Area I: W	ritten Composition	6 Cr. Hrs.	MTH126 MTH227	Calculus II Calculus III	4
Course	Title	Cr. Hrs.	PHY201	General Physics I	4
ENG101 ENG102	English Comp. I English Comp. II	3 3	Area IV: I Sciences	History, Social and Behavio 3 Cr	ral . Hrs.
Area II: F	Humanities and Fine Arts	3 Cr. Hrs.	Course	Title Cr	. Hrs.
Course	Title	Cr. Hrs.	ECO231 ECO232	Principles of Macroeconomic Principles of Microeconomics	
ART100	Art Appreciation	3	GEO100	World Regional Geography Western Civilization I	3
ART203	Art History I	3	HIS101 HIS102	Western Civilization I	3 3
ENG251	American Literature I American Literature II	3	HIS102	World History I	3
ENG252 ENG261	English Literature I	3 3	HIS122	World History II	3
ENG261 ENG262	English Literature II	3	HIS201	US History I	3
ENG271	World Literature I	3	HIS202	US History II	3

POL200	Intro to Political Science	3	Course	Title	Cr. Hrs.
PSY200 PSY210	General Psychology Human Growth and	3	ORI101 BSS220	Orientation to College Professional Transition	1 1
	Development	3	D33220	FIGUESSIONAL TRANSICION	1
SOC200	Intro to Sociology	3	Total AA	S Degree Credit Hours	63
Area V: P Elective (	re-professional, Major and Courses 41 Cr. H	Hrs.	<b>Enginee</b>	ring Design- CER	
(27 majo	r core 12 electives, 2				0.0. **
institutio	nal)		Area I: W	Vritten Composition	3 Cr. Hrs.
Course	Title Cr.	Hrs.	Course	Title	Cr. Hrs.
ADM101	Precision Measurement	3	ENG101	English Comp. I	3
ADM106	Quality Control	3	Area II. I	Humanities and Fine Arts	3 Cr Hrc
ADM110	Blueprint Reading	3	711 Ca 11. 1	Turnamues and 1 me 7 mes	J GI. 1113.
ADM155	Manufacturing Projects	3	Course	Title	Cr. Hrs.
ADM102 ADM107	Computer Aided Design CAD Concepts	3 3	ART100	Art Appreciation	3
ADM107	Intro to 3D Modeling	3	ART203	Art History I	3
ADM128	Plastic Metal Process	3	ENG251	American Literature I	3
ADM215	Geometric Dimensioning &	J	ENG252	American Literature II	3
,	Tolerancing	3	ENG261	English Literature I	3
			ENG262	English Literature II	3
General E	Electives 12 Cr. Hrs.		ENG271	World Literature I	3
Note: The	DDT233, DDT235, DDT236, and		ENG272	World Literature II	3
	re highly recommended.		MUS101	Music Appreciation	3
551200 ai	e inginy recommended.		PHL206	Ethics & Society	3
ADM111	Manufacturing Safety		REL100	History of World Religio	
	Practices	3	REL151	Survey of Old Testamen	
ADM114	Introduction to CATIA	3	REL152	Survey of New Testame	
ADM216	3D Graphics and Animation	3	SPA101	Introductory Spanish I	3
ADM261	Reverse Engineering	3	SPA102	Introductory Spanish II	3
ADM283	CO-OP	3	SPH106	Fundamentals of Oral	2
DDT130	Fundamentals of Drafting or		CD114.07	Communication	3
	Related Trades	3	SPH107	Fundamentals of Public	2
DDT144	Basic 3D Modeling	3	TUD120	Speaking Theorem Approximation	3
DDT226	Technical Illustration	3	THR120	Theater Appreciation	3 3
DDT233	Intermediate 3D Modeling	3	THR126	Intro to Theater	3
DDT235	Specialized CAD	3	Aroa III. N	atural Sciences and	
DDT239	Independent Studies	3			6 Cr Urc
DDT260	Portfolio	3	Mathema	ucs	6 Cr. Hrs.
WKO110	NCCER	3	Note: CIS	116 and MTU100 or bisha	r ara
Institutio	nal Requirements (2 credits).	:	required.	146 and MTH100 or highe	ure
Note: OR	NI101 must be taken in the	e first	Course	Title	Cr. Hrs.
semester. semester.	BSS220 must be taken in the	e final	CIS146	Microcomputer Applica	tions 3

MTH100 MTH112	Intermediate College Alg Pre-Calculus Algebra	gebra 3 3	Area IV: I Sciences	History, Social and Beh	avioral 0 Cr. Hrs.
MTH113	Pre-Calculus Trigonomet	try I 3			
MTH115	Pre-Calculus Algebra &		Area V: P	re-professional, Major	and
	Trigonometry	4	Elective (	Courses	9 Cr. Hrs.
MTH120	Calculus and Its Applicat	ion 3			
MTH125	Calculus I	4	Course	Title	Cr. Hrs.
MTH126	Calculus II	4	ADM101	Precision Measurement	3
MTH227	Calculus III	4	ADM101	Computer Aided Design	_
		_	ADM114	Introduction to CATIA	3
	listory, Social and Beh		ADIVITIA	merodaction to crtint	3
Sciences		0 Cr. Hrs.	Total ST(	C1 Credit Hours	9
Anna V. Da	a professional Major	and			
Elective C	re-professional, Major	anu 6 Cr. Hrs.	Maahani	aal Dagign Eundamas	.tolo
		o Cr. Hrs.		<u>cal Design Fundame</u> ı	itais -
(24 requi	red, 2 institutional)		<u>STC2</u>		
Course	Title	Cr. Hrs.	<u>Area I: W</u>	ritten Composition	0 Cr. Hrs.
ADM101 ADM110	Precision Measurement Blueprint Reading	3 3	Area II: H	<u> Iumanities and Fine Arts</u>	0 Cr. Hrs.
ADM114	Introduction to CATIA	3	Area III. l	Natural Sciences and	
ADM114 ADM102	Computer Aided Design	3	Mathema		0 Cr. Hrs.
ADM102 ADM107	CAD Concepts	3	Mathema	itics	U GI. III S.
ADM107	Intro to 3D Modeling	3	Area IV: I	History, Social and Beh	avioral
ADM108	Plastic Metal Process	3	Sciences		0 Cr. Hrs
ADM155	Manufacturing Projects	3	belefices		0 01.1115
ADIVITOS	ivianulacturing Projects	3	Area V: P	re-professional, Major	and
Institution	nal Requirements (2 cre	edits):	Elective (	Courses	9 Cr. Hrs
	1101 must be taken i	_			
	BSS220 must be taken i	,	Course	Title	Cr. Hrs.
semester.	DSS220 IIIUSt DE LUKEIT	in the final	ADM101	Precision Measurement	3
seniester.			ADM102	Computer Aided Design	_
Course	Title	Cr. Hrs.	ADM107	CAD Concepts	3
	Ovientation to Callege	1		•	
ORI101	Orientation to College Professional Transition	1	Total ST(	C2 Credit Hours	9
BSS220	Professional fransition	1			
			Mechani	<u>cal Design Quality - S</u>	TC3
Total Cert	tificate Credit Hours	38	Mechani	car besign quanty - 5	TCJ
Total dol			Area I: W	ritten Composition	0 Cr. Hrs.
	la de amar			•	
Advance	d Certificate - STC1		<u>Area II: H</u>	<u>Iumanities and Fine Arts</u>	0 Cr. Hrs.
Area I: W	ritten Composition	0 Cr. Hrs.	Area III. I	Natural Sciences and	
			Mathema		0 Cr. Hrs.
Area II: H	umanities and Fine Arts	0 Cr. Hrs.	mauieilla	iucs	U CI. HIS.
			Area IV: I	History, Social and Beh	avioral
	Vatural Sciences and		Sciences		0 Cr. Hrs.
Mathema	Character Control of the Control of	0 Cr. Hrs.	ociciice2		0 01.1113.

Area V: Pre-professional, Major and Elective Courses 12 Cr. Hrs.					
Course	Title	Cr. Hrs.			
ADM106	Fluid Power	3			
ADM110	Ind. Robotics	3			
ADM155	Manufacturing Projects	3			
ADM215	Geometric Dimensioning	g &			
	Tolerancing	3			
Total STC3 Credit Hours 12					

#### **Machine Tool**

The Machine Tool Technology program prepares individuals to apply technical knowledge and skills to operate machine tools used in the forming of metal components, as well as the fabrication of special tools, dies, jigs and fixtures used in cutting, working and finishing metal components.

#### **Machine Tool- AAS**

Area I: W	6 Cr. Hrs.	
Course	Title	Cr. Hrs.
ENG101 ENG102	English Comp. I English Comp. II	3 3

### Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3

SPA101	Introductory Spanish I	3	
SPA102	Introductory Spanish II	3	
SPH106	Fundamentals of Oral		
	Communication	3	
SPH107	<b>Fundamentals of Public</b>		
	Speaking	3	
THR120	Theater Appreciation	3	
THR126	Intro to Theater	3	
Area III: Na	tural Sciences and		
Mathemati	10 Cr. Hrs	ŝ.	

Note: CIS146, MTH100 or higher and a 4 credit hour science are required.

Course	Title Cr. 1	Hrs.
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
PHY201	General Physics I	4

Area IV: History, Social and Behavioral Sciences 3 Cr. Hrs.

Course	Title Cr. H	Irs.
ECO231	Principles of Macroeconomics	3
ECO232	Principles of Microeconomics	3
GEO100	World Regional Geography	3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3
POL200	Intro to Political Science	3
PSY200	General Psychology	3
PSY210	Human Growth and	
	Development	3
SOC200	Intro to Sociology	3

ORI101	Orientation to College	1	MTH100 MTH112	Intermediate College Al Pre-Calculus Algebra	gebra 3 3
Course	Title	Cr. Hrs.	CIS146	Microcomputer Applica	tions 3
semester. semester.	BSS220 must be taken	in the final	Course	Title	Cr. Hrs
	RI101 must be taken i		Note: CIS required.	146 and MTH100 or high	er are
Institutio	nal Requirements (2 cr	edits):			
עטועוער	CO-OF	3	Mathema		6 Cr. Hr
4DM106 4DM283	CO-OP	3	Area III:	Natural Sciences and	
ADM102 ADM106	Quality Control	3	11111120	intro to rifeater	3
ADM102	Graphics Milling Computer Aided Design	3 3	THR126	Intro to Theater	3
MTT220	Computer Numerical Co	_	THR120	Theater Appreciation	_
NATT220	Graphics Turning		351111/	Speaking	3
MTT219	Computer Numerical Co	ntroi 3	SPH107	Fundamentals of Public	
MTT135	Lathe Operations I Lab	3	SPH106	Communication	3
MTT134	Lathe Operations I	3	SPA102	Introductory Spanish II Fundamentals of Oral	3
	Tolerancing I	3	SPA101	Introductory Spanish I	3
MTT128	Geometric Dimensioning		REL152	Survey of New Testame	
	Technology	3	REL151	Survey of Old Testamen	
MTT125	Introduction to Machini	_	REL100	History of World Religio	
Jeneral I	diectives oci. iiis.		PHL206	Ethics & Society	3
General I	Electives 6 Cr. Hrs.		MUS101	Music Appreciation	3
	Shop II Lab	3	ENG272	World Literature II	3
MTT150	Introduction to Machine		ENG271	World Literature I	3
MTT149	Intro to Machine Shop II		ENG262	English Literature II	3
MTT148	Intro to Machine Shop I		ENG261	English Literature I	3
MTT147	Intro to Machine Shop I	3	ENG252	American Literature II	3
	Milling Programming I	3	ENG251	American Literature I	3
MTT141	Basic Computer Numerio	c Control	ART203	Art History I	3
	Turning Programming I	3	ART100	Art Appreciation	3
MTT140	Basic Computer Numerio	3 cal Control	Course	Title	Cr. Hrs
MTT139	Basic Computer Numerio		Area II: I	Humanities and Fine Arts	3 Cr. HI
MTT129	Lathe Operations	6	Amon II. I	Inmanitias and Fine Anta	2 Cm IIm
MTT107	Machining Calculations I	3	ENG101	English Comp. I	3
ADM111	Manufacturing Safety Practices	3	Course	Title	Cr. Hrs
ADM110	Blueprint Reading	3	Area I: W	Vritten Composition	3 Cr. Hr
ADM101	Precision Measurement	3			
Course	Title	Cr. Hrs.	Machini	ng Fundamentals - CF	7 <b>D</b>
nstitutio	onal)		10tal AA	S Degree Credit Hours	6
,	r core, 6 electives, 2 onal)		Total AA	S Degree Credit Hours	6

BSS220

Professional Transition 1

Area V: Pre-professional, Major and

47 Cr. Hrs.

Elective Courses

Sciences Area V: P Elective (	re-professional, Major a	on 3 4 4 4 4 vioral Cr. Hrs.	ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101	Art Appreciation Art History I American Literature I American Literature II English Literature II English Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament Introductory Spanish I	3 3 3 3 3 3 3 3 3 3
	Precision Measurement Blueprint Reading Manufacturing Safety Practices Intro to Machine Shop I Intro to Machine Shop I I Introduction to Machine Sh Introduction to Machine Shop II Lab	op II 3 3 dits):	Mathema Note: CIS: required.	146 and MTH100 or higher o	
	I101 must be taken ir BSS220 must be taken i		Course CIS146 MTH100	Title ( Microcomputer Application Intermediate College Algeb	
Course	Title	Cr. Hrs.	MTH112	Pre-Calculus Algebra	3
ORI101	Onicatetica to College		MTH113	Pre-Calculus Trigonometry	
BSS220	Orientation to College Professional Transition	1 1 35	MTH115 MTH120	Pre-Calculus Algebra & Trigonometry	4
	•		MTH115	Pre-Calculus Algebra &	4
Total Cer	Professional Transition	35	MTH115 MTH120	Pre-Calculus Algebra & Trigonometry Calculus and Its Application	4 1 3
Total Cer  CNC Mac  Area I: W	Professional Transition tificate Credit Hours hining Fundamentals ritten Composition	1 35 - CER 3 Cr. Hrs.	MTH115 MTH120 MTH125 MTH126 MTH227	Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III History, Social and Behavi	4 3 4 4 4
Total Cer	Professional Transition tificate Credit Hours hining Fundamentals	1 35 - CER	MTH115  MTH120  MTH125  MTH126  MTH227  Area IV: I	Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III History, Social and Behave	4 3 4 4 4 4 ioral
CNC Mac Area I: W Course ENG101	Professional Transition tificate Credit Hours  hining Fundamentals ritten Composition  Title  English Comp. I	1 35 - CER 3 Cr. Hrs. Cr. Hrs.	MTH115  MTH120  MTH125  MTH126  MTH227  Area IV: I  Sciences  Area V: P Elective (	Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus II Calculus III History, Social and Behave 0 (core-professional, Major and Courses 26 C	4 3 4 4 4 4 ioral
CNC Mac Area I: W Course ENG101	Professional Transition tificate Credit Hours hining Fundamentals ritten Composition Title	1 35 - CER 3 Cr. Hrs. Cr. Hrs.	MTH115  MTH120  MTH125  MTH126  MTH227  Area IV: I  Sciences  Area V: P Elective (	Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III History, Social and Behave 0 ( re-professional, Major an	4 3 4 4 4 dioral Cr. Hrs.

ADM101	Precision Measurement	3
ADM102	Computer Aided Design	3
ADM110	Blueprint Reading	3
ADM111	Manufacturing Safety	
	Practices	3
MTT107	Machining Calculations I	3
MTT139	Basic Computer Numerical	
	Control	3
MTT140	Basic Computer Numerical	
	Control Turning I	3
MTT141	Basic Computer Numeric	
	Control Milling Programming	3

#### *Institutional Requirements (2 credits):*

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1
Total Ce	rtificate Credit Hours	35

### **Precision Machining Milling - STC1**

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

Course	Title	Cr. Hrs.		
ADM101 MTT 149 MTT 150	Precision Measurement Intro to Machine Shop II Intro To Mach Shop II Lab	3 3 3		
Total STC1 Certificate Credit Hours 9				

## <u>Precision Machining Fundamentals-</u> STC2

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and

Mathematics 0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

Course	Title	Cr. Hrs.
ADM101 MTT147 MTT148	Precision Measurement Intro to Machine Shop I Intro to Machine Shop I La	3 3 b 3
Total ST(	C2 Certificate Credit Hou	rs 9

# MANUFACTURING SKILLS STANDARDS COUNCIL (MSSC) CERTIFICATION

MSSC is a short-term certificate to implement nationally recognized industry certification programs driven by industries' hiring practices and workforce occupational forecasts. This STC is comprised of 12 credit hours to include courses in the following areas: Safety, Quality Practices and Measurement, Manufacturing Processes and Production, and Maintenance Awareness.

#### **MSSC-STC**

Mathematics

Area II: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and

0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs

Area V: P Elective (	re-professional, Major a Courses 12	nd 2 Cr. Hrs.	SPH107	Fundamentals of Public Speaking	
			THR120	Theater Appreciation	
Course	Title	Cr. Hrs.	THR126	Intro to Theater	
VKO131	MSSC Safety Course	3	Δrea III· N	atural Sciences and	
WKO132	MSSC Quality Practice and		Mathemat		. H
	Measurement Course	3	- Ivia ciricina	20 0.	
WKO133	MSSC Manufacturing Prod		Note: CIS	146, MTH100 or higher and a 4	cre
WKO134	and Production Course  MSSC Maintenance Awar	3	hour scien	ce course are required.	
WKO134	Course	3	C	m: 1	7.7
		3	Course	Title Cr.	Н
Γotal Cer	tificate Credit Hours	12	CIS146	Microcomputer Applications	
			MTH100	Intermediate College Algebra	
			MTH112 MTH113	Pre-Calculus Algebra	
Mechatr	onics		MTH113	Pre-Calculus Trigonometry I Pre-Calculus Algebra &	
			14111117	Trigonometry	
<u>Mechatr</u>	onics- AAS		MTH120	Calculus and Its Application	
A T TA	Inithan Cananasitian	C C II	MTH125	Calculus I	
Area I: vv	ritten Composition	6 Cr. Hrs.	MTH126	Calculus II	
Course	Title	Cr. Hrs.	MTH227	Calculus III	
			PHY201	General Physics I	
ENG101 ENG102	English Comp. I English Comp. II	3 3	Area IV	History, Social and Behavio	ral
LINGIOZ	Liigiisii Comp. ii	3	Sciences	3 Cr.	
Area II: H	Humanities and Fine Arts	3 Cr. Hrs.			
Course	Title	Cr. Hrs.	Course	Title Cr.	H
			ECO231	Principles of Macroeconomic	
ART100	Art Appreciation	3	ECO232	Principles of Microeconomics	;
ART203	Art History I	3	GEO100	World Regional Geography	
ENG251	American Literature I	3	HIS101	Western Civilization I	
ENG252	American Literature II	3	HIS102	Western Civilization II	
ENG261	English Literature I	3	HIS121	World History I	
ENG262	English Literature II	3	HIS122	World History II	
ENG271	World Literature I World Literature II	3	HIS201	US History I	
ENG272		3	HIS202	US History II	
MUS101	Music Appreciation	3	POL200	Intro to Political Science	
PHL206	Ethics & Society	3	PSY200	General Psychology	
REL100	History of World Religions		PSY210	Human Growth and	
REL151	Survey of Old Testament	3	606300	Development	
REL152	Survey of New Testament	; 3 3	SOC200	Intro to Sociology	
	Introductory Spanish I Introductory Spanish II	3	Area V. D	re-professional, Major and	
		3	III Ca v. I	re professional, major and	
SPA102			Flective	Courses 47 Cr	Hr
SPA101 SPA102 SPH106	Fundamentals of Oral Communication	3	Elective (	Courses 47 Cr. r core, 9 electives, required	

Course	Title	Cr. H	rs.	<u>Indu</u> :
ADM101	Precision Measuremen	t	3	Area
ADM106	Quality Control		3	TH Cu
ADM110	Blueprint Reading		3	Cours
ADM111	Manufacturing Safety			
	Practices		3	ENG10
MTT139	Basic Computer Numer	ical		Anon
	Control		3	Area
MTT147	Intro to Machine Shop	l	3	Cours
WDT157	Consumable Welding P	rocesses	3	Cours
				ART10
INT101	DC Fundamentals		3	ART20
INT103	AC Fundamentals		3	ENG25
INT118	Fundamentals of Hydra	ulics		ENG25
	and Pneumatics		3	ENG26
INT158	INDUSTRIAL WIRING I		3	ENG26
INT206	Industrial Motors I		3	ENG27
				ENG27
_				MUS1
General E	lectives	9 Cr. Hrs	5.	PHL20
				REL10
Note: INT2	12, INT284, and INT288	3 are hig	hlv	REL15
recommen		3		REL15
INT212	Industrial Motor Contro	ol I	3	SPA10
INT284	Advanced Programmab	le		SPA10
	_			

### Institutional Requirements (2 credits):

**Logic Controllers** 

Applied Principles of

**Industrial Robotics** 

Troubleshooting

NCCER

CO-OP

Programmable Controllers

Preventive Maintenance

Robot Maintenance and

INT288

INT126 INT253

**INT254** 

WKO110

ADM283

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101	Orientation to College	1
BSS220	Professional Transition	1
Total AAS	S Degree Credit Hours	69

### **Industrial Maintenance - ADM CER**

ENG101	English Comp. I	3
Course	Title	Cr. Hrs.
Area I: W	3 Cr. Hrs.	

### Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.			
ART100	Art Appreciation	3			
ART203	Art History I	3			
ENG251	American Literature I	3			
ENG252	American Literature II	3			
ENG261	English Literature I	3			
ENG262	English Literature II	3			
ENG271	World Literature I	3			
ENG272	World Literature II	3			
MUS101	Music Appreciation	3			
PHL206	Ethics & Society	3			
REL100	History of World Religions	s 3			
REL151	Survey of Old Testament	3			
REL152	Survey of New Testament	t 3			
SPA101	Introductory Spanish I	3			
SPA102	Introductory Spanish II	3			
SPH106	Fundamentals of Oral				
	Communication	3			
SPH107	Fundamentals of Public				
	Speaking	3			
THR120	Theater Appreciation	3			
THR126	Intro to Theater	3			
Area III: N	Area III: Natural Sciences and				
Mathema	tics	6 Cr. Hrs.			

## Note: CIS146 and MTH100 or higher are required.

Course	Title Ci	r. Hrs.
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	a 3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4

3

3

3

3

3

3

3

3

MTH126 MTH227	Calculus II Calculus III	4 4	Area IV: l Sciences	History, Social and Be	havioral 0 Cr. Hrs.
Area IV: I Sciences	History, Social and Beh	avioral <u>0 Cr. Hrs.</u>	Area V: P Elective (	re-professional, Majo Courses	r and 9 Cr. Hrs.
	re-professional, Major		Course	Title	Cr. Hrs.
Elective (	Courses 32 ired, 2 institutional)	2 Cr. Hrs.	ADM111	Manufacturing Safety	
Course	Title	Cr. Hrs.	INT101 INT103	Practices DC Fundamentals AC Fundamentals	3 3 3
ADM101 ADM106	Precision Measurement Quality Control	3 3	Total ST(	C1 Certificate Credit H	lours 9
ADM110 ADM111	Blueprint Reading Manufacturing Safety Practices	3	Industria	ll Automation- STC2	
INT101 INT103 INT118	DC Fundamentals AC Fundamentals Fundamentals of Industr	3 3 rial		ritten Composition  Jumanities and Fine Art	
MTT139 MTT147	Pneumatics and Hydraul Basic CNC Intro to Machine Shop I	3 3	Area III: I Mathema	Natural Sciences and atics	0 Cr. Hrs.
WDT157	Consumable Welding Propagation Consumable Welding Propagation Consumate Cons		Area IV: l Sciences	History, Social and Be	havioral <u>0 Cr. Hrs.</u>
Note: OR	21101 must be taken i BSS220 must be taken	n the first	Area V: P Elective (	re-professional, Majo Courses	r and 12 Cr. Hrs.
Course	Title	Cr. Hrs.	Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1	ADM111 INT101 INT103 INT126	Manufacturing Safety Practices DC Fundamentals AC Fundamentals Preventive Maintenance	3 3 3 ce 3
Total Cer	tificate Credit Hours	44		C2 Certificate Credit H	
			Total ST	12 Gertificate Gredit fr	10015 12
IND Elec	trical Fundamentals-	STC1	<u>Industri</u>	al Automation - STC	<u>4</u>
Area I: W	ritten Composition	0 Cr. Hrs.	Area I: W	ritten Composition	0 Cr. Hrs.
Area II: H	Iumanities and Fine Arts	0 Cr. Hrs.	Area II: H	<u>Iumanities and Fine Art</u>	s 0 Cr. Hrs.
Area III: l Mathema	Natural Sciences and atics	0 Cr. Hrs.	Area III: Mathema	Natural Sciences and atics	0 Cr. Hrs.

Area IV: I Sciences	History, Social and Beha	ivioral ) Cr. Hrs.	SPA101 SPA102	Introductory Spanish I Introductory Spanish II	3 3
			SPH106	Fundamentals of Oral	
	re-professional, Major a			Communication	3
Elective (	Lourses 2	1 Cr. Hrs.	SPH107	Fundamentals of Public	2
Course	Title	Cr. Hrs.	THR120	Speaking Theater Appreciation	3
ADM101 ADM111	Precision Measurement Manufacturing Safety	3	THR126	Intro to Theater	3
	Practices	3		atural Sciences and	
INT101	DC Fundamentals	3	Mathemat	ics 10	Cr. Hrs.
INT103	AC Fundamentals	3			
INT126	Preventive Maintenance	3	Note: CISI	146, MTH116 or higher and a	4 credit
INT253	Industrial Robotics	3	hour scien	ce course are required.	
INT254	Robot Maintenance and			m. 1	
	Troubleshooting	3	Course	Title C	r. Hrs.
		_	CIS146	Microcomputer Application	s 3
Total ST(	C4 Credit Hours	21	MTH116	Mathematical Applications	3
			MTH100	Intermediate College Algeb	
			MTH112	Pre-Calculus Algebra	3
Welding	•			8	
	)		MTH113	Pre-Calculus Trigonometry	1 3
	1		MTH115	Pre-Calculus Algebra &	
<u>Advance</u>	ed Manufacturing Weld	ding- AAS		Trigonometry	4
Anos I. 14	Initton Composition	2 Cm IIma	MTH120	Calculus and Its Application	3
Area I: vv	ritten Composition	3 Cr. Hrs.	MTH125	Calculus I	4
Course	Title	Cr. Hrs.	MTH126	Calculus II	4
Course	Title	СГ. ПГЗ.	MTH227	Calculus III	4
ENG101	English Comp. I	3	PHY201	General Physics I	4
			Area IV: l	History, Social and Behavi	oral
Area II: F	Iumanities and Fine Arts	6 Cr. Hrs.	Sciences	3 0	r. Hrs.
C -	m: il.	C . II			
Course	Title	Cr. Hrs.	Course	Title C	r. Hrs.
ART100	Art Appreciation	3	ECO231	Principles of Macroeconom	ics 3
ART203	Art History I	3	ECO232	Principles of Microeconomi	
ENG251	American Literature I	3	GEO100	World Regional Geography	3
ENG252	American Literature II	3	HIS101	Western Civilization I	3
ENG261	English Literature I	3	HIS102	Western Civilization II	3
ENG262	English Literature II	3	HIS121	World History I	3
ENG271	World Literature I	3	HIS122	World History II	3
ENG272	World Literature II	3	HIS201	US History I	3
MUS101	Music Appreciation	3	HIS202	US History II	3
PHL206	Ethics & Society	3	POL200	Intro to Political Science	3
REL100	History of World Religion		PSY200	General Psychology	3
REL151	Survey of Old Testament		PSY210	Human Growth and	5
RFI 152	Survey of New Testamen		F31210	Davidan mant	2

Development

3

3

Survey of New Testament

REL152

SOC200	Intro to Sociology	3	ADM283	CO-OP	3		
Elective (	r core, 12 electives, 2	Hrs.	Note: OR	<b>nal Requirements (2 cre</b> 21101 must be taken i BSS220 must be taken	n the first		
Course	Title Cr.	Hrs.	Course	Title	Cr. Hrs.		
ADM101 ADM106 ADM111	Precision Measurement Quality Control Manufacturing Safety	3	ORI101 BSS220	Orientation to College Professional Transition	1 1		
WDT110 WDT119	Practices Industrial Blueprint Reading Gas Metal Arc/Flux Cored Arc Welding	3 3 3	Total AAS  Welding	S Degree Credit Hours  - CER	69		
WDT124	Gas Metal Arc/Flux Cored Arc Welding Lab	3	Area I: W	ritten Composition	3 Cr. Hrs.		
WDT157	Consumable Welding Processes	3	Course	Title	Cr. Hrs.		
WDT158	CONSUMABLE WELDING PROCESSES LAB	3	ENG101	English Comp. I	3		
WDT228	WDT228 Gas Tungsten ARC Welding		Gas Tungsten ARC Welding	3	Area II: H	Iumanities and Fine Arts	3 Cr. Hrs.
WDT268 WDT280	Gas Tungsten ARC Lab Special Topics	3	Course	Title	Cr. Hrs.		
General ADM102 ADM110 WDT108 WDT109 WDT115 WDT120	Computer Aided Design Blueprint Reading SMAW Fillet/ OFC SMAW Fillet/PAC/CAC GTAW Carbon Pipe Shielded Metal Arc Welding	3 3 3 3 3	ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101	Art Appreciation Art History I American Literature I American Literature II English Literature I English Literature II World Literature I World Literature II Music Appreciation	3 3 3 3 3 3 3		
WDT125	Groove Shielded Metal Arc Welding Groove Lab	3	PHL206 REL100	Ethics & Society History of World Religion	3 ns 3		
WDT155 WDT166 WDT167 WDT217 WDT218	GTAW Carbon Pipe Lab FLUX CORE ARC WELDING Flux Core ARC Welding Lab SMAW CARBON PIPE Certification	3 3 3 3	REL151 REL152 SPA101 SPA102 SPH106	Survey of Old Testament Survey of New Testamer Introductory Spanish I Introductory Spanish II Fundamentals of Oral Communication			
WDT219 WDT257 WDT258 WDT269	Welding Inspection & Testing SMAW Carbon Pipe Lab Certification Lab Boiler Tube Lab	3 3 3 3	SPH107 THR120	Fundamentals of Public Speaking Theater Appreciation	3		
WDT281 WKO110	Special Topics in Welding Technology NCCER	3	THR126  Area III: I Mathema	Intro to Theater  Natural Sciences and	3 6 Cr. Hrs.		
			- 140101110		5 511 111 01		

Course	Title Cr.	Hrs.
CIS146	Microcomputer Applications	3
MTH116	Mathematical Applications	3
MTH100	Intermediate College Algebra	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 23 Cr. Hrs. (21 required, 2 institutional)

### Note: All courses are required except.

Course	Title	Cr. H	rs.
WDT119	Gas Metal Arc/Flux Cored Welding	Arc	3
WDT124	Gas Metal Arc/Flux Cored	Arc	
	Welding Lab		3
WDT157	Consumable Welding		
	Processes		3
WDT158	CONSUMABLE WELDING		
	PROCESSES LAB		3
WDT228	Gas Tungsten ARC Weldin	g	3
WDT268	Gas Tungsten ARC Lab		3
WDT280	Special Topics		3

### Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101	Orientation to College	1
BSS220	<b>Professional Transition</b>	1

### **SMAW - STC1**

Area I: W	ritten Composition	0 Cr. Hrs.		
Area II: H	0 Cr. Hrs.			
Area III: Natural Sciences and Mathematics 0 Cr. Hrs.				
Area IV: H	listory, Social and Beh	avioral		
Sciences		0 Cr. Hrs.		
	re-professional, Major			
Elective C	lourses	9 Cr. Hrs.		
Course	Title	Cr. Hrs.		
ADM101	Precision Measurement	3		
WDT108	SMAW Fillet/OFC	3		
WDT109	SMAW Fillet/PAC/CAC	3		
VV D 1 109	SIVIAVV FILIEL/PAC/CAC	3		
Total STC1 Credit Hours 9				

### **GMAW-STC2**

Area I: W	ritten Composition 0	Cr. Hrs.
Area II: H	Iumanities and Fine Arts 0	Cr. Hrs.
Area III: l Mathema	Natural Sciences and atics 0	Cr. Hrs.
Area IV: I	History, Social and Behavi	oral
Sciences		Cr. Hrs.
Area V: P	re-professional, Major and	d Er. Hrs.
<u> </u>	3041565	<i>.</i> 1.1115.
Course	_	Sr. Hrs.
_		
Course	Title C	Gr. Hrs.
Course ADM101	Title Cored A Gas Metal Arc/Flux Cored A	3 Arc 3
Course ADM101 WDT119	Title  Precision Measurement Gas Metal Arc/Flux Cored A Welding	3 Arc 3

FCAW- STC3	Area II: Humanities and Fine Arts 0 Cr. Hrs.
Area I: Written Composition 0 Cr. Hrs.	Area III: Natural Sciences and
Area II: Humanities and Fine Arts 0 Cr. Hrs.	Mathematics 0 Cr. Hrs.
Area III: Natural Sciences and Mathematics 0 Cr. Hrs.	Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.
Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.	Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.
Area V: Pre-professional, Major and	Course Title Cr. Hrs.
Elective Courses 9 Cr. Hrs.	ADM101 Precision Measurement 3
Course Title Cr. Hrs.	WDT110 Industrial Blue Printing 3 WDT219 Welding Inspection & Testing 3
ADM101 Precision Measurement 3 WDT166 FLUX CORE ARC WELDING 3	Total STC5 Credit Hours 9
WDT167 Flux Core ARC Welding Lab 3	Consumable Welding- STC6
Total STC3 Credit Hours 9	Area I: Written Composition 0 Cr. Hrs.
GTAW- STC4	Area II: Humanities and Fine Arts 0 Cr. Hrs.
Area I: Written Composition 0 Cr. Hrs.	Area III: Natural Sciences and  Mathematics 0 Cr. Hrs.
Area II: Humanities and Fine Arts 0 Cr. Hrs.  Area III: Natural Sciences and	Area IV: History, Social and Behavioral
Mathematics 0 Cr. Hrs.	Sciences 0 Cr. Hrs.
Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.	Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.
	Course Title Cr. Hrs.
Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.	ADM101 Precision Measurement 3
Course Title Cr. Hrs.	WDT157 Consumable Welding Processes 3
ADM101 Precision Measurement 3	WDT158 CONSUMABLE WELDING PROCESSES LAB 3
WDT228 Gas Tungsten ARC Welding 3 WDT268 Gas Tungsten ARC Lab 3	Total STC6 Credit Hours 9
Total STC4 Credit Hours 9	
	AWS Certification- STC 7
Welding Blueprint- STC5	Area I: Written Composition 0 Cr. Hrs.
Area I: Written Composition 0 Cr. Hrs.	Area II: Humanities and Fine Arts 0 Cr. Hrs.

	Natural Sciences and tics	0 Cr. Hrs.		
	History, Social and Beh	avioral <u>0 Cr. Hrs.</u>		
Area V: Pi	re-professional, Major Courses 9 Ci			
Course		Cr. Hrs.		
	Precision Measurement Certification	3 3		
WDT258		3		
Total STC	7 Credit Hours	9		
SMAW Pi	ipe Welding - STC8			
Area I: W	ritten Composition	0 Cr. Hrs.		
Area II: H	umanities and Fine Arts	0 Cr. Hrs.		
	Natural Sciences and tics	0 Cr. Hrs.		
	History, Social and Beh	avioral <u>0 Cr. Hrs.</u>		
Area V. P	re-professional, Major	and		
Elective C		9 Cr. Hrs.		
Course	Title	Cr. Hrs.		
ADM101	Precision Measurement	3		
WDT217	SMAW CARBON PIPE	3		
WDT257	SMAW Carbon Pipe Lab	3		
Total STC	8 Credit Hours	9		
<b>GTAW Pi</b>	pe Welding - STC9			
Area I: Written Composition 0 Cr. Hrs.				
Area II: Humanities and Fine Arts 0 Cr. Hrs.				
Area III· N	Natural Sciences and			
<u>Mathema</u>		0 Cr. Hrs.		
Area III. I	lictory Social and Dak	ovioral		
Sciences	History, Social and Beh	0 Cr. Hrs.		
301011000		5 51.111.01		

ADM101	Precision Measurement	3
Course	Title	Cr. Hrs.
Elective (	ective Courses 9 Cr.	

Area V: Pre-professional, Major and

WDT115	GTAW Carbon Pipe	3
WDT155	GTAW Carbon Pipe Lab	3
Total ST	C9 Credit Hours	9

## **SMAW Grooves - STC10**

Area I: Written Composition 0 Cr. Hrs	<u>.</u>
*	_

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

Course	Title	Cr. Hrs.	
ADM101	Precision Measurement	3	
WDT120 WDT125	Shielded Metal Arc Weldir Groove Shielded Metal Arc Weldir	3	
	Groove Lab	3	
Total STC10 Credit Hours 9			

## **APPLIED TECHNOLOGIES**

#### **AUTOMOTIVE TECHNOLOGY**

The Automotive Technology program prepares individuals to apply basic engineering principles and technical skills in support of engineers and other professionals engaged in developing, manufacturing and testing self-propelled ground vehicles and their systems. Includes instruction in vehicular systems technology, design and development testing, prototype and

operation	al testing, inspection and		CHM112	College Chemistry II	4
maintenar	nce procedures, instrumen	t	CIS146	Microcomputer Applications	3
calibration	n, test equipment operatio	n and	GEO101	Principles of Physical	
maintenar	nce, and report preparatio	n.		Geography I	4
			GEO102	Principles of Physical	
<b>Automo</b>	<u>tive Technology - AAS</u>			Geography II	4
	_		MTH100	Intermediate College Algebra	3
Area I: W	ritten Composition	3 Cr Hrs	MTH110	Finite Mathematics	3
	m. I		MTH112	Pre-Calculus Algebra	3
Course	Title	Cr. Hrs.	MTH113	Pre-Calculus Trigonometry I	3
ENG101	English Comp. I	3	MTH115	Pre-Calculus Algebra &	
				Trigonometry	4
Area II: H	<b>Humanities and Fine Arts</b>	6 Cr. Hrs.	MTH120	Calculus and Its Application	3
			MTH125	Calculus I	4
Course	Title	Cr. Hrs.	MTH126	Calculus II	4
ART100	Art Appreciation	3	MTH227	Calculus III	4
ART203	Art History I	3	PHS111	Physical Science I	4
ENG251	American Literature I	3	PHS112	Physical Science II	4
ENG251	American Literature II	3	PHY120	Intro to Physics	4
ENG261	English Literature I	3	PHY201	General Physics I	4
ENG262	English Literature II	3	PHY202	General Physics II	4
ENG271	World Literature I	3	PHY213	Gen. Physics with Calculus I	4
ENG271	World Literature II	3	PHY214	Gen. Physics with Calculus II	4
MUS101	Music Appreciation	3	A TT7 1	Urara Cartal and Dalas ta	1
PHL206	Ethics & Society	3		History, Social and Behavior	
REL100	History of World Religion		Sciences	3 Cr.	Hrs.
REL151	Survey of Old Testament		Carre	Title Co	11
REL152	Survey of New Testamer		Course	Title Cr.	Hrs.
SPA101	Introductory Spanish I	3	ECO231	Principles of Macroeconomics	3
SPA102	Introductory Spanish II	3	ECO232	Principles of Microeconomics	3
SPH106	Fundamentals of Oral	3	GEO100	World Regional Geography	3
3111200	Communication	3	HIS101	Western Civilization I	3
SPH107	Fundamentals of Public	3	HIS102	Western Civilization II	3
0.11207	Speaking	3	HIS121	World History I	3
THR120	Theater Appreciation	3	HIS122	World History II	3
THR126	Intro to Theater	3	HIS201	US History I	3
	mero co medeci	3	HIS202	US History II	3
Area III:	Natural Sciences and		POL200	Intro to Political Science	3
Mathema	atics	10 Cr. Hrs.	PSY200	General Psychology	3
			PSY210	Human Growth and	
Note: CIS	146, MTH100 or higher and	d a 4 credit		Development	3
	ce course are required.		SOC200	Intro to Sociology	3
2 33 30.011					
Course	Title	Cr. Hrs.		re-professional, Major and	
			Flective	Courses 47 Cr	Hrc

4

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4

Principles of Biology I

Principles of Biology II

College Chemistry I

BIO103

BIO104

CHM111

**Elective Courses** 

(39 required, 6 electives, 2 institutional)

47 Cr. Hrs.

Course	Title	Cr. Hrs.	Automo	<u>tive Technology - STC</u>	
ASE101	Fundamentals of Auto Technology	3	Area I: W	ritten Composition	0 Cr. Hrs.
ASE112	Electrical Fundamentals	3	Area II: F	<u><b>Humanities and Fine Arts</b></u>	0 Cr. Hrs.
ASE121	Braking Systems	3	111 00 111 1		0 01111101
ASE122	Steering & Suspension	3	Area III:	Natural Sciences and	
ASE124	Automotive Engines	3	<u>Mathema</u>	atics	0 Cr. Hrs.
ASE130	Drive Train & Axle	3			_
ASE133	Motor Vehicle A/C	3		History, Social and Beh	
ASE162	<b>Electrical and Electronic</b>		<u>Sciences</u>		<u>0 Cr. Hrs.                                    </u>
	Systems	3	A 400 M. F	Dra professional Major	and
ASE224	Manual Transmission			Pre-professional, Major	
	And Transaxle	3	Elective		4 Cr. Hrs.
ASE230	Automatic Transmission		(24 requ	ired, 0 institutional)	
	And Transaxle	3	Course	Title	Cr. Hrs.
ASE245	<b>Engine Performance and</b>		Course	11116	<i>СГ. ПГ</i> 5.
	Diagnostics Combined	3	ASE101	Fundamentals of Auto	
ASE263	Hybrid and Electric Vehic			Technology	3
ASE281	Special Topics	3	ASE112	<b>Electrical Fundamentals</b>	3
Comonal E	logtima	Cw. IIwa	ASE121	Braking Systems	3
General E	lectives 6	Cr. Hrs.	ASE122	Steering & Suspension	3
ADM101	<b>Precision Measurements</b>	3	ASE124	Automotive Engines	3
ASE212	Advanced Electrical and		ASE130	Drive Train & Axles	3
	Electronic Systems	3	ASE133	Motor Vehicle A/C	3
ASE220	Advanced Auto Engines	3	ASE162	Electrical and Electronic	
ASE246	<b>Automotive Emissions</b>	3		Systems	3
ASE290	CO-OP	3	Total CT	C Credit Hours	24
WDT119	Gas Metal ARC/FLUX		10tal 310	5 Credit Hours	
	Cored ARC Welding	3			
WDT124	GMA/FLUX CORED ARC L	AB 3	<u>Automot</u>	ive Electrical - STC	
Institution	nal Requirements (2 cre	dits):	<u>Area I: W</u>	ritten Composition	0 Cr. Hrs.
	I101 must be taken ir BSS220 must be taken i		<u>Area II: I</u>	<u>Humanities and Fine Arts</u>	0 Cr. Hrs.
semester.			Area III:	Natural Sciences and	
0	m. I		<u>Mathema</u>	atics	0 Cr. Hrs.
Course	Title	Cr. Hrs.			_
ORI101	Orientation to College	1	Area IV:	History, Social and Beh	
BSS220	Professional Transition	1	<u>Sciences</u>		0 Cr. Hrs.
Total AAS	Degree Cr. Hrs.	69		Pre-professional, Major Courses 9 Cr. Hrs. (9 tional)	
			Course	Title	Cr. Hrs.

ASE101	Fundamentals of Auto		Course	Title	Cr. Hrs.
	Technology	3	A C E 1 O 1	Fundamentals of Auto	
ASE112	<b>Electrical Fundamentals</b>	3	ASE101	Fundamentals of Auto	
ASE162	Electrical and Electronic Systems	3	ASE124 ASE220	Automotive Engines Advanced Auto Engines	3 3
Total ST	C Credit Hours	9	Total ST	C Credit Hours	9
<b>Brakes</b>	and Suspensions - STC				
Area I. V	Vritten Composition 0	Cr. Hrs.	Cosmeto	ology Instructor Train	ing- STC
Area II: Humanities and Fine Arts 0 Cr. Hrs.			teaching r	This course focuses on principles of teaching, teaching maturity, professional conduct, and	
Area III: Natural Sciences and				opment of cosmetology cur is placed on teacher roles,	

0 Cr. Hrs.

0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs. (9 required, 0 institutional)

Area IV: History, Social and Behavioral

Sciences

Course	Title	Cr. Hrs.	
ASE101	Fundamentals of Auto		
	Technology	3	
ASE121	<b>Braking Systems</b>	3	
ASE122	Steering & Suspension	3	
ASE133	Motor Vehicle A/C	3	
Total STC Credit Hours 9			

### **Engine Repair - STC**

**Mathematics** 

Area I: Written Composition	0 Cr. Hrs.
Area II: Humanities and Fine Arts	0 Cr. Hrs.
Area III: Natural Sciences and mathematics	0 Cr. Hrs.
Area IV: History, Social and Beh. Sciences	avioral 0 Cr. Hrs.
Area V: Pre-professional, Major Elective Courses 9 Cr. Hrs. (9 0 institutional)	

This course focuses on principles of teaching, teaching maturity, professional conduct, and the development of cosmetology curriculum. Emphasis is placed on teacher roles, teaching styles, teacher challenges, aspects of curriculum development, and designing individual courses. Upon completion, the student should be able to describe the role of teacher, identify means of motivating students, develop a course outline, and develop lesson plans.

Area I: Written Composition	0 Cr. Hrs.
Area II: Humanities and Fine Arts	0 Cr. Hrs.
Area III: Natural Sciences and	
Mathematics	0 Cr. Hrs.
Area IV: History, Social and Beh	
Sciences	<u> 0 Cr. Hrs.</u>
Area V: Pre-professional, Major	
Elective Courses 18	3 Cr. Hrs.

(18 required, 0 institutional)

Course	Title C	r. Hr	S.
CIT211	Teaching and Curriculum		
	Development	3	3
CIT212	Teaching Mentorship	3	3
CIT213	Cosmetology Instructor Co-	ор З	3
CIT214	Lesson Plan Methods		
	and Development	3	3
CIT222	Aud/Vis Materials & Method	ds 3	3
CIT223	Aud/Vis Materials & Method	ds	
	Applications	3	3
Total STC Credit Hours 18			

## CULINARY ARTS/HOSPITALITY SERVICES MANAGEMENT

The Culinary Arts/Hospitality Management Program was developed to serve the emerging needs of the food service and hospitality establishments of the College's service area. This program was designed to provide degrees and certificates with core courses in nutrition, food purchasing, food preparation, cooking, meal presentation, and meal serving along with providing knowledge and skills in customer service skills, restaurant operations, and hospitality management

### **Culinary Arts - AAS**

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Course	Title	Cr. Hrs.
ENG101	English Comp. I	3

### Area II: Humanities and Fine Arts 6 Cr. Hrs.

*Note: SP107 is required along with one humanities course.* 

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	
	Communication	3
SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3

THR126 Intro to Theater

Area III: Natural Sciences and Mathematics

10 Cr. Hrs.

3

Note: CIS146, MTH116 and a 4 credit science are required.

Course	Title Cr.	Hrs.
CIS146	Microcomputer Applications	3
MTH116	Mathematical Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
GEO101	Principles of Physical	
	Geography I	4
GEO102	Principles of Physical	
	Geography II	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus I	4
PHY214	Gen. Physics with Calculus II	4

## Area IV: History, Social and Behavioral Sciences 3 Cr. Hrs.

Course	Title Cr. H	Irs.
ECO231	Principles of Macroeconomics	3
ECO232	Principles of Microeconomics	3
GEO100	World Regional Geography	3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3

HIS122 HIS201 HIS202 POL200 PSY200 PSY210 SOC200	World History Ii US History I US History II Intro to Political Science General Psychology Human Growth and Development Intro to Sociology	3 3 3 3 3 3	CUA216 CUA222 CUA281 HSM111 HSM112 HSM122	Americas Plated Desert Design Dietary Management Apprenticeship Qualifyir Dinner Intro to the Hospitality I Hospitality Law Human Resource Management	3 ndustry 3 3 gement
Elective (	r core, 15 electives, 2	Irs.	HSM123 HSM133 HSM240 HSM250 HSM265	Hospitality Hospitality Field Experie Hospitality Field Experie Housekeeping Admin Hospitality Marketing Plan/Development of To	ence II 3 3 3
Course	Title Cr. 1	Hrs.			
CUA101	Orientation to the Hospitality	3		nal Requirements (2 cr	
CUA111 CUA116	Profession Foundations in Nutrition Sanitation and Safety	3 3		RI101 must be taken i BSS220 must be taken	
CUA125 CUA204	Food Preparation Foundations of Baking	5 3	Course	Title	Cr. Hrs.
CUA213	Food Purchasing and Cost Control	3	ORI101 BSS220	Orientation to College Professional Transition	1 1
CUA251 CUA262	Menu Design Restaurant Management and Supervision	3	Total AA	S Degree Credit Hours	65
Program	Electives 15 Cr		Culinary	Arts - CER	
CUA102	Catering	3	Area I: W	ritten Composition	3 Cr. Hrs.
CUA113	Table Service	2	Carrena	T:41 -	C II
CUA115 CUA141	Advanced Food Preparation Food Production for Special	3	Course	Title	Cr. Hrs.
COAI41	Operations	3	ENG101	English Comp. I	3
CUA165	Cake Decorating and Design	3	Area II: F	Iumanities and Fine Arts	3 Cr. Hrs.
CUA173	Culinary Arts Apprenticeship I	3			
CUA181	Special Topics in Culinary Arts	2		107 is required along w	ith one
CUA182 CUA201	Special Topics in Culinary Arts Meat Preparation and	3	humaniti	es course.	
CUA202	Processing Aromatic/Flavoring	3	Course	Title	Cr. Hrs.
CUAZUZ	Combinations	3	ART100	Art Appreciation	3
CUA203	Stocks and Sauces	3	ART203	Art History I American Literature I	3
CUA205	Intro to Garden Manager	3	ENG251 ENG252	American Literature I	3 3
CUA208	Advanced Baking	3	ENG252 ENG261	English Literature I	3
CUA210	Beverage Management	2	ENG262	English Literature II	3
CUA214	International Cuisine	3	ENG271	World Literature I	3
CUA215	Regional Cuisines of the	3	ENG272	World Literature II	3

MUS101 PHL206 REL100 REL151 REL152	Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament	3 3 3 3	POL200 PSY200 PSY210 SOC200	Intro to Political Science General Psychology Human Growth and Development Intro to Sociology	3 3 3 3
SPA101 SPA102 SPH106 SPH107	Introductory Spanish I Introductory Spanish II Fundamentals of Oral Communication Fundamentals of Public	3 3	Elective	or core, 13 electives, 2	Irs.
THR120	Speaking Theater Appreciation	3 3	Course	Title Cr.	Hrs.
THR126	Intro to Theater	3	CUA101	Orientation to the Hospitality Profession	3
<u>Mathema</u>	Natural Sciences and tics 6 Cr. 46 and MTH116 or higher are	Hrs.	CUA111 CUA116 CUA125 CUA204 CUA213	Foundations in Nutrition Sanitation and Safety Food Preparation Foundations of Baking Food Purchasing and Cost Control	3 3 5 3 3
Course	Title Cr. 1	Hrs.	CUA251	Menu Design	3
CIS146 MTH116	Microcomputer Applications Mathematical Applications	3 3	Program	Electives 13 Cr	. Hrs.
MTH100	Intermediate College Algebra	3	CUA102	Catering	3
MTH110	Finite Mathematics	3	CUA113	Table Service	2
MTH112	Pre-Calculus Algebra	3	CUA115	Advanced Food Preparation	3
MTH113	Pre-Calculus Trigonometry I	3	CUA141	Food Production for Special	
MTH115	Pre-Calculus Algebra & Trigonometry	4		Operations	3
MTH120	Calculus and Its Application	3	CUA165	Cake Decorating and Design	3
MTH125	Calculus I	4	CUA173	Culinary Arts Apprenticeship I	3
MTH126	Calculus II	4	CUA181	Special Topics in Culinary Arts	2
MTH227	Calculus III	4	CUA182 CUA201	Special Topics in Culinary Arts Meat Preparation and	3
Area IV: F Sciences	History, Social and Behavior 0 Cr.		CUA202	Processing Aromatic/Flavoring	3
301011003	J 011		CLIAGOS	Combinations	3
Course	Title Cr. 1	Hrs.	CUA203	Stocks and Sauces	3
			CUA205	Intro to Garden Manager	3
ECO231	Principles of Macroeconomics		CUA208	Advanced Baking	3
ECO232	Principles of Microeconomics	3	CUA210	Beverage Management International Cuisine	2
GEO100	World Regional Geography	3	CUA214		3
HIS101	Western Civilization I	3	CUA215	Regional Cuisines of the	3
HIS102	Western Civilization II	3	CLIADAC	Americas	2
HIS121	World History I	3	CUA216	Plated Desert Design	3
HIS122	World History Ii	3	CUA222	Dietary Management	3
HIS201	US History I	3	CUA281	Apprenticeship Qualifying	2
HIS202	US History II	3		Dinner	3

HSM122 Human Resource Management Hospitality Hospitali	ecial 3 sign 3 eship I 3 y Arts 2
HSM123 Hospitality Field Experience I 3 CUA165 Cake Decorating and Decorations HSM133 Hospitality Field Experience II 3 CUA173 Culinary Arts Apprentice HSM240 Housekeeping Admin 3 CUA181 Special Topics in Culinary HSM250 Hospitality Marketing 3 CUA182 Special Topics in Culinary HSM265 Plan/Development of Tourism 3 CUA201 Meat Preparation and Processing	3 sign 3 eship I 3 y Arts 2 y Arts 3
HSM123 Hospitality Field Experience I 3 CUA165 Cake Decorating and Decoration and Processing and Decorating and Decoration and	sign 3 eship I 3 y Arts 2 y Arts 3
HSM133 Hospitality Field Experience II 3 CUA173 Culinary Arts Apprentice HSM240 Housekeeping Admin 3 CUA181 Special Topics in Culinary HSM250 Hospitality Marketing 3 CUA182 Special Topics in Culinary HSM265 Plan/Development of Tourism 3 CUA201 Meat Preparation and Processing	eship I 3 y Arts 2 y Arts 3
HSM240 Housekeeping Admin 3 CUA181 Special Topics in Culinary HSM250 Hospitality Marketing 3 CUA182 Special Topics in Culinary HSM265 Plan/Development of Tourism 3 CUA201 Meat Preparation and Processing	y Arts 2 y Arts 3
HSM250 Hospitality Marketing 3 CUA182 Special Topics in Culinary HSM265 Plan/Development of Tourism 3 CUA201 Meat Preparation and Processing	y Arts 3
HSM265 Plan/Development of Tourism 3 CUA201 Meat Preparation and Processing	
Processing	2
· ·	
INCRETELETON OF MOCKET MONACO MARCHARD CONTROL	э
Institutional Requirements (2 credits): CUA202 Aromatic/Flavoring  Note: OBJ 01 must be taken in the first Combinations	3
Note: Orifor must be taken in the first	3
CIA20E Intro to Cardon Manage	
semester. CUA203 Intro to Garden Manage CUA208 Advanced Baking	3
Course Title Cr. Hrs. CUA210 Beverage Management	2
CUA210 Beverage Wallagement  CUA211 International Cuisine	3
ORI101 Orientation to College 1 CUA215 Regional Cuisines of the	
BSS220 Professional Transition 1 Americas	3
CUA216 Plated Desert Design	3
Total Certificate Credit Hours 50 CUA222 Dietary Management	3
CUA281 Apprenticeship Qualifyir	ng
Dinner	3
<u>Culinary Arts- Hospitality Services -</u> HSM111 Intro to the Hospitality In	ndustry 3
STC HSM112 Hospitality Law	3
HSM122 Human Resource Manag	gement
Area I: Written Composition 0 Cr. Hrs. Hospitality	3
Area II: Humanities and Fine Arts 0 Cr. Hrs.  HSM123 Hospitality Field Experie	nce I 3
HSM133 Hospitality Field Experie	
Area III: Natural Sciences and HSM240 Housekeeping Admin	3
Mathematics 0 Cr. Hrs HSM250 Hospitality Marketing	3
HSM265 Plan/Development of To	ourism 3
Area IV: History, Social and Behavioral	odita).
Sciences 0 Cr. Hrs. Institutional Requirements (2 cre	
Area V: Pre-professional, Major and  Note: ORI101 must be taken i	
Floative Courses 20 Cr. Ura	in the final
(11 major core, 15 Elective, 2	
institutional) Course Title	Cr. Hrs.
	<i>Gr. 1113.</i>
Course Title Cr. Hrs. ORI101 Orientation to College BSS220 Professional Transition	1
CUA111 Foundation of Nutrition 3	1
CUA116 Sanitation and Safety 3 Total STC Credit Hours	28
COATTO Samuation and Sarcty 5	
CUA125 Food Preparation 5	
General Electives 15 Cr. Hrs.	
CUA102 Catering 3	

# **Culinary Arts- Hospitality Management- STC**

Area I: W	ritten Composition	3 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101	English Comp. I	3
Area II. I	Jumanities and Fine Art	s O Cr Hrs

# Area III: Natural Sciences and Mathematics 7 Cr. Hrs.

## Note: CIS146 course, and a 4 credit science course are required.

MTH116 Mathematical Applications 3 MTH100 Intermediate College Algebra 3 MTH110 Finite Mathematics 3 MTH112 Pre-Calculus Algebra 3 MTH113 Pre-Calculus Trigonometry I 3 MTH115 Pre-Calculus Algebra & Trigonometry 4 MTH120 Calculus and Its Application 3 MTH125 Calculus I 4
MTH110 Finite Mathematics 3 MTH112 Pre-Calculus Algebra 3 MTH113 Pre-Calculus Trigonometry I 3 MTH115 Pre-Calculus Algebra & Trigonometry 4 MTH120 Calculus and Its Application 3
MTH112 Pre-Calculus Algebra 3 MTH113 Pre-Calculus Trigonometry I 3 MTH115 Pre-Calculus Algebra & Trigonometry 4 MTH120 Calculus and Its Application 3
MTH113 Pre-Calculus Trigonometry I 3 MTH115 Pre-Calculus Algebra & Trigonometry 4 MTH120 Calculus and Its Application 3
MTH115 Pre-Calculus Algebra & Trigonometry 4 MTH120 Calculus and Its Application 3
Trigonometry 4 MTH120 Calculus and Its Application 3
MTH120 Calculus and Its Application 3
TITLES CUICUIAS I
MTH126 Calculus II 4
MTH227 Calculus III 4
BIO103 Principles of Biology I 4
BIO104 Principles of Biology II 4
CHM111 College Chemistry I 4
CHM112 College Chemistry II 4
GEO101 Principles of Physical
Geography I 4
GEO102 Principles of Physical
Geography II 4
PHS111 Physical Science I 4
PHS112 Physical Science II 4
PHY120 Intro to Physics 4
PHY201 General Physics I 4
PHY202 General Physics II 4
PHY213 Gen. Physics with Calculus I 4
PHY214 Gen. Physics with Calculus II 4

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 18 Cr. Hrs. (18 major core, 0 institutional)

Course	Title Cr. 1	Hrs.
CUA101	Orientation to the Hospitality Profession	3
HSM112	Hospitality Law	3
HSM123	Hospitality Field Experience I	3
HSM133	Hospitality Field Experience II	3
HSM240	Housekeeping Admin	3
HSM250	Hospitality Marketing	3

#### Institutional Requirements (0 credits):

Total STC Credit Hours	28
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# HEATING AND AIR CONDITIONING/Refrigeration

The purpose of the Heating and Air Conditioning program is to provide accessible, quality educational opportunities that will provide individuals with knowledge, technical skills, and attitudes necessary to obtain entry-level employment in the heating and air conditioning profession.

### <u>Heating and Air</u> Conditioning/Refrigeration - AAS

Area I: V	Vritten Composition	6 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101	English Comp. I	3
ENG102	English Comp. II	3

#### Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Lit. I	3
ENG252	American Lit. II	3
ENG261	English Lit I	3

ENG262 ENG271 ENG272 MUS101 PHL206 REL100	English Lit II World Literature I World Literature II Music Appreciation Ethics & Society History of World Religions	3 3 3 3 3	PHY202 PHY213 PHY214 Area IV: 3 Sciences	General Physics II Gen. Physics with Calculus I Gen. Physics with Calculus II History, Social and Behavior 3 Cr.	
REL151 REL152	Survey of Old Testament Survey of New Testament	3 3	Course	Title Cr.	Hrs.
SPA101 SPA102 SPH106	Introductory Spanish I Introductory Spanish II Fundamentals of Oral	3	ECO231 ECO232 GEO100	Principles of Macroeconomics Principles of Microeconomics World Regional Geography	3 3 3
SPH107	Communication Fundamentals of Public	3	HIS101 HIS102	Western Civilization I Western Civilization II	3 3
THR120 THR126	Speaking Theater Appreciation Intro to Theater	3 3 3	HIS121 HIS122	World History I World History Ii	3
	Natural Sciences and		HIS201 HIS202 POL200	US History I US History II Intro to Political Science	3 3 3
Mathema			PSY200 PSY210	General Psychology Human Growth and	3
	5146, MTH100 or higher and ence are required.	a 4	SOC200	Development Intro to Sociology	3 3
Course	Title Cr. I		Area V: P Elective (	re-professional, Major and Courses 44 Cr. I	Irc
CIS146	Microcompliter Applications				113.
MTH100 MTH110	Microcomputer Applications Intermediate College Algebra Finite Mathematics	3 3 3	(30 majo	r core, 12 electives, 2 onal)	113.
MTH100 MTH110 MTH112 MTH113			-		
MTH110 MTH112 MTH113 MTH115	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application	3 3 3 3 4 3	Course ACR111 ACR112 ACR113	Title Cr.  Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Practices	
MTH110 MTH112 MTH113 MTH115	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry	3 3 3 3	Course ACR111 ACR112	Title Cr.  Principles of Refrigeration HVACR Service Procedure	Hrs. 3
MTH110 MTH112 MTH113 MTH115 MTH120 MTH125 MTH126 MTH227 BIO103 BIO104	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III Principles of Biology I Principles of Biology II	3 3 3 4 4 4 4 4	Course  ACR111 ACR112 ACR113 ACR119  ACR122 ACR132 ACR132 ACR148	Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Practices Fundamentals of Gas Heating Systems HVACR Electrical Circuits Residential Air Conditioning Heat Pump System I	Hrs.  3 3 3 3 3 3 3 3
MTH110 MTH112 MTH113 MTH115 MTH120 MTH125 MTH126 MTH227 BIO103	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III Principles of Biology I	3 3 3 4 4 4 4	Course  ACR111 ACR112 ACR113 ACR119  ACR122 ACR132	Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Practices Fundamentals of Gas Heating Systems HVACR Electrical Circuits Residential Air Conditioning	Hrs.  3 3 3 3 3 3
MTH110 MTH112 MTH113 MTH115 MTH120 MTH125 MTH126 MTH227 BIO103 BIO104 CHM111 CHM111	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Calculus III Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Principles of Physical Geography I Principles of Physical	3 3 3 4 4 4 4 4 4 4	Course  ACR111 ACR112 ACR113 ACR119  ACR122 ACR132 ACR148 ACR149 ACR209 ACR210	Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Practices Fundamentals of Gas Heating Systems HVACR Electrical Circuits Residential Air Conditioning Heat Pump System I Heat Pump System II Commercial Air Conditioning Troubleshooting HVACR Systems	Hrs.  3 3 3 3 3 3 3 3 3 3
MTH110 MTH112 MTH113 MTH115 MTH120 MTH125 MTH126 MTH227 BIO103 BIO104 CHM111 CHM111 GEO101	Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II Principles of Biology I Principles of Biology II College Chemistry I College Chemistry I College Chemistry II Principles of Physical Geography I	3 3 3 4 3 4 4 4 4 4 4	Course  ACR111 ACR112 ACR113 ACR119  ACR122 ACR132 ACR148 ACR149 ACR209	Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Practices Fundamentals of Gas Heating Systems HVACR Electrical Circuits Residential Air Conditioning Heat Pump System I Heat Pump System II Commercial Air Conditioning Troubleshooting HVACR Systems	Hrs.  3 3 3 3 3 3 3 3 3 3

ACR125 ACR126	Fund of Gas and Elec Heati Systems Commercial Heating Systems	3	REL152 SPA101 SPA102 SPH106	Survey of New Testament Introductory Spanish I Introductory Spanish II Fundamentals of Oral	3
ACR152 ACR181 ACR182	Heat Pump Systems Special Topics in Air Cond A Refrig I Special Topics in Air Cond A	3	SPH107 THR120	Communication Fundamentals of Public Speaking Theater Appreciation	3 3 3
ACR192 ACR195	Refrig II HVAC Apprenticeship/Int CO-OP	3	THR126	Intro to Theater  Natural Sciences and	3
	nal Requirements (2 credi		Mathema		Cr. Hrs.
	RI101 must be taken in BSS220 must be taken in		Note: CI.	S146, MTH100 or higher	a are
	Til.	C - 11	Course	Title	Cr. Hrs.
ORI101 BSS220	Title ( Orientation to College Professional Transition	1 1	CIS146 MTH100 MTH110	Microcomputer Application Intermediate College Algorial Finite Mathematics	
	S Degree Credit Hours	66	MTH112 MTH113	Pre-Calculus Algebra Pre-Calculus Trigonometr	3
	ning/Refrigeration - CE	<b>R</b> Cr. Hrs.	MTH115 MTH120 MTH125 MTH126	Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I Calculus II	4 on 3 4 4
Course	Title (	Cr. Hrs.	MTH227	Calculus III	4
ENG101 Area II: H	English Comp. I  Humanities and Fine Arts 3	3 Cr. Hrs.	Area IV: Sciences	History, Social and Beha 0	vioral Cr. Hrs.
Course	Title (	Cr. Hrs.	Course	Title	Cr. Hrs.
ART100 ART203 ENG251 ENG252	Art Appreciation Art History I American Lit. I American Lit. II	3 3 3 3	Elective	or core, 15 electives, 2	nd Cr. Hrs.
ENG261 ENG262	English Lit I English Lit II	3	Course	Title	Cr. Hrs.
ENG271 ENG272 MUS101 PHL206 REL100 REL151	World Literature I World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament	3 3 3 3 3	ACR111 ACR112 ACR113 ACR119	Principles of Refrigeration HVACR Service Procedure Refrigeration Piping Pract Fundamentals of Gas Hea Systems	ices 3 ting 3
	•		ACR122	<b>HVACR Electrical Circuits</b>	3

ACR132	Residential Air Condition	-	Note: CI	S146, MTH100 or highe	r.	
ACR148 ACR149	Heat Pump System I Heat Pump System II	3 3	Course	Title	Cr. Hrs.	
ACR209 ACR210	Commercial Air Condition Troubleshooting HVACR Systems	ning 3	CIS146 MTH100 MTH110	Microcomputer Application Intermediate College Algorithm Finite Mathematics	gebra 3 3	
General E	Electives 1	5 Cr. Hrs.	MTH112 MTH113	Pre-Calculus Algebra Pre-Calculus Trigonome	3 try I 3	
ACR120 ACR121 ACR123 ACR125 ACR126 ACR126 ACR152 ACR181	Fund of Elec Heat Sys Principles Electric HVAC HVAC Elect Components Fund of Gas and Elec Hea Systems Commercial Heating Systems Heat Pump Systems Special Topics in Air Conc Refrig I	3 3 d And 3	MTH115  MTH120  MTH125  MTH126  MTH227  Area IV:  Sciences	Pre-Calculus Algebra & Trigonometry Calculus and Its Applicat Calculus I Calculus II Calculus III History, Social and Beh	tion 3 4 4 4 4 avioral 0 Cr. Hrs.	
ACR182	Special Topics in Air Cond Refrig II	3	Elective		Cr. Hrs.	
ACR192 ACR195	HVAC Apprenticeship/In CO-OP	t 3 <u>(18</u>	(18 requ	(18 required, 2 institutional)		
Inctitutio	nal Requirements (2 cre	dite).	Course	Title	Cr. Hrs.	
Note: OR	Title	n the first	ACR111 ACR112 ACR113 ACR121 ACR122	Principles of Refrigeration HVACR Service Procedur Refrigeration Piping Pra- Principles Electric HVAC HVACR Electrical Circuits	re 3 ctices 3 3	
ORI101 BSS220	Orientation to College Professional Transition	1 1	ACR123	HVAC Elect Components		
Total Cer	tificate Credit Hours	59	Note: OF	RI101 must be taken i	in the first	
Haatina	and Air		semester. semester.	BSS220 must be taken	in the final	
Heating Conditio	and Air ning/Refrigeration - S	STC	Course	Title	Cr. Hrs.	
Area I: W	ritten Composition	3 Cr. Hrs.	ORI101 BSS220	Orientation to College Professional Transition	1	
Course	Title	Cr. Hrs.				
ENG101	English Comp. I	3	Total ST	C Credit Hours	29	
Area II: H	lumanities and Fine Arts	0 Cr. Hrs.				
Area III: l Mathema	Natural Sciences and	6 Cr. Hrs				

#### **SALON MANAGEMENT**

The Salon Management program prepares cosmetologists, hairstylists, and other personal grooming specialists to manage beauty parlors, shops, and full-service or specialized salons and to prepare for licensure as professional salon owners and operators. Includes instruction in cosmetic services marketing and retailing; advertising and promotion; salon management; the cosmetic and salon supply industries; hiring, supervision, and labor relations; applicable business and professional laws and regulations; professional standards and image; and customer service.

# **Cosmetology - AAS**

The Cosmetology program is a full-time program combining classroom theory with hands-on practice in the laboratory. The program is designed to provide qualified individuals the opportunity to acquire the knowledge, attitudes, and skills to obtain a degree or certificate verifying their competency in Cosmetology. Graduates of the Cosmetology program are eligible to take the Alabama State Board Examination for licensure as a cosmetologist.

Area I: Written	Composition	3 Cr. Hrs.
III CO II II II CCCII	domposition	0 011 111 01

Course	Title	Cr. Hrs.
ENG101	English Comp. I	3

Area II: Humanities and Fine Arts 6 Cr. Hrs.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3

REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	3
	Communication	
SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3
THR126	Intro to Theater	3

Area III: Natural Sciences and Mathematics 10 Cr. Hrs.

Note: CIS146, MTH116 or higher and a 4 hour science course are required.

Course	Title Cr.	Hrs.
CIS146	Microcomputer Applications	3
MTH116	Mathematical Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
GEO101	Principles of Physical	
	Geography I	4
GEO102	Principles of Physical	
	Geography II	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus I	4
PHY214	Gen. Physics with Calculus II	4

Area IV: History, Social and	l Behavioral
Sciences	3 Cr. Hrs.

# *Note: PSY200 is preferred.*

Course	Title Cr. H	Irs.
ECO231	Principles of Macroeconomics	3
ECO232	Principles of Microeconomics	3
GEO100	World Regional Geography	3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3
POL200	Intro to Political Science	3
PSY200	General Psychology	3
PSY210	Human Growth and	
	Development	3
SOC200	Intro to Sociology	3

# Area V: Pre-professional, Major and Elective Courses 47 Cr. Hrs. (36 major core, 9 electives, 2 institutional).

Course	Title Cr.	Hrs.
ACT201	Entrepreneurism	3
COS111	Introduction to Cosmetology	3
COS112	Introduction to Cosmetology	
	Lab	3
COS113	Theory of Chemical Services	3
COS114	Chemical Services Lab	3
COS120	Hair Coloring Theory and Lab	
	Combined	3
COS121	Basic Spa Techniques Theory	
	And Lab Combined	3
COS123	Cosmetology Salon Practices	3
COS143	Specialty Hair Prep Tec	3
COS144	Hair Shaping and Design	3
COS167	State Board Review	3
SAL133	Salon Management Tech	3
General I	Electives 9 Cr. I	irs.
BAR108	Introduction to Barbering	3
BAR111	Introduction to Barbering Lab	3

BAR112	Science of Barbering	3
BAR113	Fundamentals of Barbering	
	Applications	3
BAR140	Practicum I	2
BAR141	Practicum II	2
COS134	Advanced Esthetics	3
COS145	Hair Shaping Lab	3
COS146	Hair Additions	3
COS148	Nail Care Theory	3
COS152	Nail Care Applications	3
COS149	Nail Care Art Theory	3
COS154	Nail Art Applications	3
COS163	Facial Treatments	3
COS164	Facial Machine	3
COS165	Related Subjects – Estheticians	3
COS168	Bacteriology and Sanitation	3
COS169	Skin Functions	3

# Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1
Total AA	S Degree Credit Hours	69

# **Barbering**

This Barbering Certificate Program combines classroom theory with hands-on practice in the laboratory. Course requirements include general education courses and barbering courses. The program is designed to provide qualified individuals the opportunity to acquire the knowledge, attitude, and skills to obtain a Certificate in Barbering.

# **Barbering-CER**

Area I: W	ritten Composition	3 Cr. Hrs.
Course	Title	Cr. Hrs.

Area II: Humanities and Fine Arts 3 Cr. Hrs.

3

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	
	Communication	3
SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3
THR126	Intro to Theater	3

Area III: Natural Sciences and Mathematics 6 Cr. Hrs.

Note: CIS146 and MTH116 or higher are required.

Course	Title Cr. 1	Hrs.
CIS146	Microcomputer Applications	3
MTH116	Mathematical Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH116	Mathematical Applications	3
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4

Area V: Pre-professional, Maj	jor and
<b>Elective Courses</b>	36 Cr. Hrs.
(34 required, 2 institutional)	

Course	Title	Cr. H	rs.
BAR108	Introduction to Barbering		3
BAR111	Introduction to Barbering	Lab	3
BAR112	Science of Barbering		3
BAR113	Fundamentals of Barberin	ng	
	Applications		3
BAR140	Practicum I		2
BAR141	Practicum II		2
COS113	Theory of Chemical Service	e	3
COS114	Chemical Service Lab		3
COS120	Hair Coloring Theory and	Lab	
	Combined		3
COS144	Hair Shaping Design		3
COS167	State Board Review		3
Note: require required	d for state board license only, cou	unty not	•
SAL133	Salon Management		
	Technology		3

# Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101	Orientation to College	1
BSS220	<b>Professional Transition</b>	1
Total Cer	tificate Credit Hours	48

# **Barbering-STC**

Area II: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and

Mathematics 0 Cr. Hrs.

Sciences		0 Cr. Hrs.	SPH107 THR120	Fundamentals of Public Speaking Theater Appreciation	3
	Pre-professional, Majo		THR126	Intro to Theater	3
Elective	Courses	17 Cr. Hrs.	Area III:	Natural Sciences and	
Course	Title	Cr. Hrs.	Mathema		6 Cr. Hrs.
BAR108	Introduction to Barber	ing 3			
BAR111	Introduction to Barber	ing Lab 3		146 and MTH116 or high	er are
BAR112	Science of Barbering	3	required.		
BAR113	Fundamentals of Barbo	ering	Course	Title	Cr. Hrs.
	Application	3			
BAR140	Practicum I	2	CIS146	Microcomputer Applica	
SAL133	Salon Management		MTH116	Mathematical Applicati	
	Technology	3	MTH100	Intermediate College Al	•
			MTH110	Finite Mathematics	3
Total ST	C Credit Hours	17	MTH112	Pre-Calculus Algebra	3
			MTH113	Pre-Calculus Trigonome	etry I 3
			MTH115	Pre-Calculus Algebra &	
				Trigonometry	4
<b>Esthetic</b>	s- CER		MTH120	Calculus and Its Applica	tion 3
			MTH125	Calculus I	4
Area I: W	Vritten Composition	3 Cr. Hrs.	MTH126	Calculus II	4
			MTH227	Calculus III	4
Course	Title	Cr. Hrs.	A IV/	History Costal O Dales	:1
ENG101	English Comp. I	3		History, Social & Beha	
			<u>Sciences</u>		0 Cr. Hrs.
Area II: I	Humanities and Fine Art	s 3 Cr. Hrs.	Area V: F	re-professional, Major	and
Course	Title	Cr. Hrs.	Elective	= '	6 Cr. Hrs.
ART100	Art Appreciation	3	(211equ	irea, 2 motitationary	
ART203	Art History I	3	Course	Title	Cr. Hrs.
ENG251	American Literature I	3	COC124	Advanced Fatherine	2
ENG252	American Literature II	3	COS134	Advanced Esthetics	3
ENG261	English Literature I	3	COS163	Facial Machine	3
ENG262	English Literature II	3	COS164	Facial Machine	3
	•		COS165	Related Subjects – Esth	
ENG271	World Literature I	3	$C \cap C \wedge C \neg$		
ENG271 ENG272	World Literature I World Literature II	3	COS167	State Board Reviews – E	
			COS168	Bacteriology and Sanita	tion 3
ENG272	World Literature II	3	COS168 COS169	Bacteriology and Sanita Skin Functions	tion 3
ENG272 MUS101	World Literature II Music Appreciation	3 3 3	COS168	Bacteriology and Sanita	tion 3
ENG272 MUS101 PHL206	World Literature II Music Appreciation Ethics & Society History of World Religi	3 3 3 ions 3	COS168 COS169 SAL133	Bacteriology and Sanita Skin Functions Salon Management Tec	tion 3 3 h 3
ENG272 MUS101 PHL206 REL100 REL151	World Literature II Music Appreciation Ethics & Society History of World Religi Survey of Old Testame	3 3 3 ions 3 ent 3	COS168 COS169 SAL133	Bacteriology and Sanita Skin Functions	tion 3 3 h 3
ENG272 MUS101 PHL206 REL100 REL151 REL152	World Literature II Music Appreciation Ethics & Society History of World Religi Survey of Old Testame Survey of New Testam	3 3 3 ions 3 ent 3 ent 3	COS168 COS169 SAL133	Bacteriology and Sanita Skin Functions Salon Management Tec	tion 3 3 h 3 eedits):
ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101	World Literature II Music Appreciation Ethics & Society History of World Religi Survey of Old Testame Survey of New Testam Introductory Spanish I	3 3 3 ions 3 ent 3 ent 3	COS168 COS169 SAL133 Institution	Bacteriology and Sanita Skin Functions Salon Management Tec onal Requirements (2 cr	tion 3 3 h 3 edits): in the firs
ENG272 MUS101 PHL206 REL100 REL151 REL152	World Literature II Music Appreciation Ethics & Society History of World Religi Survey of Old Testame Survey of New Testam	3 3 3 ions 3 ent 3 ent 3	COS168 COS169 SAL133 Institution	Bacteriology and Sanita Skin Functions Salon Management Tec onal Requirements (2 cr RI101 must be taken	tion 3 3 h 3 edits): in the firs

Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1
Total Cer	tificate Credit Hours	38

# **Nail Care-STC**

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics

0 Cr. Hrs.

Area IV: History, Social and Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 21 Cr. Hrs. (21 required, 0 institutional)

Course	Title	Cr. Hrs.
COS148	Nail Care Theory	3
COS152	Nail Care Applications	3
COS149	Nail Care Art Theory	3
COS154	Nail Art Applications	3
COS167	State Board Review	3
COS168	Bacteriology and Sanitatio	n 3
SAL133	Salon Management Tech	3

# Total STC Credit Hours 21

#### **Natural Hair - STC**

The Natural Hair STC is designed to educate the learner on everything they need to know about growing longer, healthier natural hair and more. Topics include hair, health, hair extensions, hair braiding, dreadlocks and culture from a holistic approach.

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and	
Mathematics	0 Cr. Hrs.
Area IV: History, Social and Bel	navioral
Sciences	0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

Course	Title	Cr. Hrs.
COS111 COS112	Introduction to Cosmetolo Introduction to Cosmetolo	<b>.</b>
	Lab	3
COS146	Hair Additions	3
Total STO	C Credit Hours	9

# Business, Computer Science, and Engineering Technologies

# **BUSINESS ADMINISTRATION - ACCOUNTING**

The Accounting program is designed to teach, through a sequence of experiences, the skills necessary for a student to develop cognitive knowledge of the accounting process and to be able to apply this knowledge in a practical manner.

# **Accounting- AAS**

Area I: W	ritten Composition	6 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101 ENG102	English Comp. I English Comp. II	3 3

#### Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3

NG261	English Literature I	3	PHY213	Gen. Physics with Calculus I	4
NG262	English Literature II	3	PHY214	Gen. Physics with Calculus II	4
NG271	World Literature I	3	4 117	m., c.l.lpl.	1
NG272	World Literature II	3		History, Social and Behavio	
1US101	Music Appreciation	3	Sciences	3 Cr	. Hr
HL206	Ethics & Society	3	Carres	Title Co	11
REL100	History of World Religions	3	Course	Title Cr.	Hr
REL151	Survey of Old Testament	3	ECO231	Principles of Macroeconomic	s 3
REL152	Survey of New Testament	3	ECO232	Principles of Microeconomics	3
PA101	Introductory Spanish I	3	GEO100	World Regional Geography	3
PA102	Introductory Spanish II	3	HIS101	Western Civilization I	3
PH106	Fundamentals of Oral		HIS102	Western Civilization II	3
	Communication	3	HIS121	World History I	3
PH107	Fundamentals of Public		HIS122	World History II	3
	Speaking	3	HIS201	US History I	3
HR120	Theater Appreciation	3	HIS202	US History II	3
HR126	Intro to Theater	3	POL200	Intro to Political Science	3
	N . lo:		PSY200	General Psychology	3
	Natural Sciences and		PSY210	Human Growth and	
<i>l</i> athema	atics 10 Ci	r. Hrs.		Development	3
our scier	146, MTH100 or higher and a 4 ace course are required.		Elective		
our scier Course	ritle Cr.	Hrs.	Area V: F Elective (27 majo	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2	
our scier Course HO103	Title Cr.  Principles of Biology I	<u>Hrs.</u> 4	Area V: F Elective	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2	
our scier Course SIO103 SIO104	Title Cr.  Principles of Biology I Principles of Biology II	Hrs. 4	Area V: F Elective (27 majo institutio	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)	Hrs
our scier Course 10103 10104 HM111	Title Cr.  Principles of Biology I Principles of Biology II College Chemistry I	Hrs. 4 4 4	Area V: F Elective (27 majo institutio	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.	Hrs
our scier Course 10103 10104 HM111 HM112	Title Cr.  Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II	Hrs. 4 4 4 4	Area V: F Elective (27 majo institutio  Course  BUS245	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks	Hrs.
our scier ourse 10103 10104 HM111 HM112 IS146	Title Cr.  Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications	Hrs. 4 4 4	Area V: F Elective (27 majo institutio  Course  BUS245 ACT249	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting	Hrs.
our scier ourse 10103 10104 HM111 HM112 IS146	Title Cr.  Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical	Hrs. 4 4 4 4 3	Area V: F Elective (27 majo institutio  Course BUS245 ACT249 ACT253	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.  Accounting with QuickBooks Payroll Accounting Individual Income Tax	Hrs.
Course 10103 10104 1HM111 1HM112 1S146 5E0101	Title Cr.  Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I	Hrs.  4 4 4 4 3	Area V: F Elective (27 majo institutio  Course  BUS245 ACT249 ACT253 BUS100	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business	Hrs.
Course BIO103 BIO104 CHM111 CHM112 CIS146 GEO101	Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II	Hrs.  4 4 4 4 3 4 4	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I	Hrs
Gour scier Gourse GIO103 GIO104 CHM111 CHM112 CIS146 GEO101 GEO102 WTH100	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra	Hrs. 4 4 4 4 3 4 4 3	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II	Hrs
Our scier Course 10103 10104 1HM111 1HM112 1S146 1E0101 1E0102 1TH100 1TH110	Principles of Biology I Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics	Hrs.  4 4 4 4 3 4 4 3 3	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.  Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting	Hrs
Our scier Course IO103 IO104 HM111 HM112 IS146 EEO101 EEO102 ATH100 ATH110	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra	Hrs.  4 4 4 4 3 4 4 3 3 3 3	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment	Hrs
our scier ourse 10103 10104 HM111 HM112 IS146 E0101 E0102 1TH100 1TH110 1TH113	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I	Hrs.  4 4 4 4 3 4 4 3 3	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.  Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment of Business	Hrs
Our scier Course IO103 IO104 HM111 HM112 IS146 EO101 EO102 ITH100 ITH110 ITH112 ITH113	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Algebra &	Hrs.  4 4 4 3 4 4 3 3 3 3 3 3	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment	Hrs
our scier fourse 10103 10104 HM111 HM112 IS146 E0101 E0102 ITH100 ITH110 ITH113 ITH115	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Algebra & Trigonometry	Hrs.  4 4 4 4 3 4 4 3 3 4 4 4 3 3 4 4 4 4 3 4	Area V: F Elective (27 major institution)  Course  BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263  BUS271	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.  Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting I Managerial Accounting Legal and Social Environment of Business Business Statistics I	Hrs
our scier ourse 10103 10104 HM111 HM112 IS146 E0101 E0102 1TH100 1TH110 1TH113 1TH115	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Algebra &	Hrs.  4 4 4 3 4 4 3 3 3 3 3 3	Area V: F Elective (27 major institution)  Course  BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263  BUS271	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr.  Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment of Business	Hrs . Hr
Our scier Course 10103 10104 1HM111 1HM112 1S146 1E0101 1E0102 1TH100 1TH110 1TH113 1TH115 1TH120 1TH125	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I	Hrs.  4 4 4 3 4 4 3 3 4 4 3 3 3 4 4 3 4	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263 BUS271 General 1	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment of Business Business Statistics I	Hrs . Hr
OUR SCIENT OURSE  IO103 IO104 HM111 HM112 IS146 EO101 EO102 ITH100 ITH110 ITH115 ITH115 ITH125 ITH126	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Algebra Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus II	Hrs.  4 4 4 3 4 4 3 3 4 4 3 3 3 3 3 3	Area V: F Elective (27 majo institutio)  Course  BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263  BUS271 General 1	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment of Business Business Statistics I  Electives 15 Cr	Hrs
	Principles of Biology I Principles of Biology II Principles of Biology II College Chemistry I College Chemistry II Microcomputer Applications Principles of Physical Geography I Prin. of Physical Geo II Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I Pre-Calculus Algebra & Trigonometry Calculus and Its Application Calculus I	Hrs.  4 4 4 4 3 4 4 3 3 4 4 3 3 4 4 4 4 4 4	Area V: F Elective (27 major institution)  Course BUS245 ACT249 ACT253 BUS100 BUS241 BUS242 BUS248 BUS263 BUS271 General 1	Pre-professional, Major and Courses 44 Cr. or core, 15 electives, 2 onal)  Title Cr. Accounting with QuickBooks Payroll Accounting Individual Income Tax Intro to Business Principles of Accounting I Principles of Accounting II Managerial Accounting Legal and Social Environment of Business Business Statistics I	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

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Physical Science II

Intro to Physics

General Physics I

General Physics II

PHS112

PHY120

PHY201

PHY202

ACT195

ACT201

BUS146

BUS147

Accounting Co-op

Entrepreneurism

Personal Finance

Introduction to Finance

3

3

3

3

BUS186 BUS215 BUS275 BUS276 BUS279 BUS285	Elements of Supervision Business Communication Principals of Management Human Resource Management Small Business Management Principals of Marketing	3 3 3 t 3 3 3	MTH115 MTH120 MTH125 MTH126 MTH227	Pre-Calculus Algebra & Trigonometry Calculus and Its Applica Calculus I Calculus II Calculus III	4 3 4 4 4
CIS147 CIS185 CIS196 OAD101	Advanced Microcomputer Application Computer Ethics Commercial Software Applications Basic Key Boarding	3 3 3 3	Sciences Area V: P Elective	re-professional, Major Courses 1.	r. Hrs.
	nal Requirements (2 credits):		Course	ired, 0 institutional)  Title	Cr. Hrs.
	II101 must be taken in the BSS220 must be taken in the		BUS245 BUS100 BUS241	Accounting with QuickB Intro to Business Principles of Accounting	3
Course	Title Cr. I		BUS242 BUS248	Principles of Accounting  Managerial Accounting	•
ORI101 BSS220	Orientation to College Professional Transition	1 1	003210	Managerial / tecounting	3
Total AAS	S Degree Credit Hours	66	Total ST	C Credit Hours	24
Account	ing- STC		Account	ing- STC	
Area I: W	ritten Composition 3 Cr.	Hrs.	Area I: W	ritten Composition	0 Cr. Hrs.
ENG101 Comp. I	Englis 3	sh		Iumanities and Fine Arts	0 Cr. Hrs.
•	Iumanities and Fine Arts 0 Cr.	Hrs.	Area III: Mathema	Natural Sciences and atics	0 Cr. Hrs.
Area III: Mathema	Natural Sciences and atics 6 Cr.	Hrs.	Area IV: Sciences	History, Social & Beha	vioral <u>0 Cr. Hrs.</u>
Note: CIS. required.	146 and MTH116 or higher are		Area V: P Elective	re-professional, Major Courses 9	and Cr. Hrs.
Course	Title Cr. I	Hrs.	(9 requir	ed, 0 institutional)	
CIS146 MTH116 MTH100 MTH110 MTH112 MTH113	Microcomputer Applications Mathematical Applications Intermediate College Algebra Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonometry I	3 3 3 3 3 3	BUS100 BUS241 BUS242	Intro to Business Principles of Accounting Principles of Accounting	
					-

# BUSINESS ADMINISTRATION – MANAGEMENT

The Business Administration-Management Associate in Applied Sciences Degree is designed to accommodate the skills needed in specific areas of practical management, accounting, and marketing. The benefits of the program increase student's opportunities to be visible and marketable in the challenging world of work. The goal is to prepare efficient-successful employees in their current jobs as well as their future career endeavors.

# **Business Management - AAS**

Area I: Written C	omposition	6	Cr. Hrs.
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Course	Title	Cr. Hrs.
ENG101	English Comp. I	3
ENG102	English Comp. II	3

# Area II: Humanities and Fine Arts 3 Cr. Hrs.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	
	Communication	3
SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3
THR126	Intro to Theater	3

# Area III: Natural Sciences and Mathematics

10 Cr. Hrs.

Note: CIS146, MTH100 or higher, and a four credit hour course are required.

Course	Title C	Gr. Hrs.
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
CIS146	Microcomputer Application	ıs 3
GEO101	Principles of Physical	
	Geography I	4
GEO102	Principles of Physical	
	Geography II	4
MTH100	Intermediate College Algeb	ra 3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry	l 3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus I	
PHY214	Gen. Physics with Calculus I	I 4

# Area IV: History, Social and Behavioral Sciences 3 Cr. Hrs.

Course	Title Cr. F	Irs.
ECO231	Principles of Macroeconomics	3
ECO232	Principles of Microeconomics	3
GEO100	World Regional Geography	3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3

POL200	Intro to Political Science	3	Course	Title	Cr. Hrs.
PSY200 PSY210	General Psychology Human Growth and Development	3	ORI101 BSS220	Orientation to College Professional Transition	1 1
SOC200	Intro to Sociology	3	Total AA	S Degree Credit Hours	66
Area V: F	Pre-professional, Major and Courses 44 Cr. 1	Hrs	Busines	s Management- STC	
	or core, 9 electives, 2	1113.	Area I: W	ritten Composition	3 Cr. Hrs.
mstrutic	Malj		Course	Title	Cr. Hrs.
Course	Title Cr.	Hrs.	ENG101	English Comp. I 3	
BUS100 BUS186	Intro to Business Elements of Supervision	3 3	Area II: F	Humanities and Fine Arts	0 Cr. Hrs.
BUS215 BUS241	Business Communication Principles of Accounting I	3	Area III: Mathema	Natural Sciences and atics	6 Cr. Hrs.
BUS242 BUS248 BUS263 BUS271	Principles of Accounting II  Managerial Accounting  Legal and Social Environments  Business Statistics I	3 3 5 3 3	Note: CIS required.	146 and MTH100 or high	er are
BUS275	Principals of Management	3	Course	Title	Cr. Hrs.
BUS276 BUS279	Human Resource Managemer Small Business Management	nt 3 3	CIS146 MTH100	Microcomputer Applica Intermediate College Al	
General l	Electives 9 Cr. I	Hrs.	MTH110	Finite Mathematics	3
ACT114 ACT115 ACT195 ACT201	Intro Accounting Database Intro Accounting Resource Accounting Co-op Entrepreneurism	3 3 3	MTH112 MTH113 MTH115 MTH120	Pre-Calculus Algebra Pre-Calculus Trigonome Pre-Calculus Algebra Trigonometry Calculus and Its Applicat	4
ACT249 ACT253	Payroll Accounting Individual Income Tax	3 3	MTH125	Calculus I	4
BUS146 BUS147	Personal Finance Introduction to Finance	3 3	MTH126 MTH227	Calculus II Calculus III	4 4
BUS285 CIS147	Principals of Marketing Advanced Microcomputer Applications	3	Area IV: Sciences	History, Social & Beha	vioral 0 Cr. Hrs.
CIS185 CIS196	Computer Ethics Commercial Software Applications	3		Pre-professional, Major Courses 1	_
OAD101	Basic Key Boarding	3	(15 requ	ired, 0 institutional)	
Institutio	onal Requirements (2 credits)	):	Course	Title	Cr. Hrs.
	RI101 must be taken in the BSS220 must be taken in the		BUS100 BUS241 BUS242 BUS275	Intro to Business Principles of Accounting Principles of Accounting Principals of Manageme	; II 3

BUS276	Human Resource Mana	igement 3	Course	Title	Cr. Hrs.
Total ST(	C Credit Hours	24	ART100	Art Appreciation	3
10001010			ART203	Art History I	3
<b>D</b> .			ENG251	American Literature I	3
<u>Business</u>	s Management- STC		ENG252	American Literature II	3
Aroa I. W	Iritton Composition	0 Cr. Hrs.	ENG261	English Literature I	3
HI ea I. VV	ritten Composition	0 CI. III S.	ENG262	English Literature II	3
Area II: F	<b>Humanities and Fine Arts</b>	s 0 Cr. Hrs.	ENG271	World Literature I	3
		<del>5                                    </del>	ENG272	World Literature II	3
Area III: l	Natural Sciences and		MUS101	Music Appreciation	3
<u>Mathema</u>	atics	0 Cr. Hrs.	PHL206	Ethics & Society	3
			REL100	History of World Religions	
	History, Social & Beha		REL151	Survey of Old Testament	3
Sciences		0 Cr. Hrs.	REL152	Survey of New Testament	3
A 17 D	)		SPA101	Introductory Spanish I	3
	Pre-professional, Major		SPA102	Introductory Spanish II	3
Elective (	Lourses 9	Cr. Hrs.	SPH106	Fundamentals of Oral	
(O roquir	ed, 0 institutional)			Communication	3
(9 requir	eu, o mstitutionarj		SPH107	Fundamentals of Public	
Course	Title	Cr. Hrs.		Speaking	3
Course	1100	Gr. 1113.	THR120	Theater Appreciation	3
BUS100	Intro to Business	3	THR126	Intro to Theater	3
BUS275 BUS276	Principals of Managem Human Resource Mana		Area III: Mathema	Natural Sciences and	O Cr. Hrs
Total ST(	C Credit Hours	9	Mathema	aucs 10	J GI. III :
DUCINE	SS ADMINISTRATION			146, MTH100 or higher, and Ir science course are require	
	L BUSINESS	_	Course	Title	Cr. Hrs.
	ral Business program is de	esigned to	BIO103	Principles of Biology I	4
	ough a sequence of exper	-	BIO104	Principles of Biology II	4
-	ssary for a student to dev	•	CHM111	College Chemistry I	4
	re and knowledge regardi	•	CHM112	College Chemistry II	4
	s and to be able to apply	-	CIS146	Microcomputer Applicatio	ns 3
•	e in a practical manner.	uiio	GEO101	Principles of Physical	
Kilowieuge	e iii a practical ilialillel.			Geography I	4
<u>General</u>	Business - AAS		GEO102	Principles of Physical Geography II	4
Area I: W	ritten Composition	6 Cr. Hrs.	MTH100	Intermediate College Algel	bra 3
		2 222 1110.	MTH110	Finite Mathematics	3
Course	Title	Cr. Hrs.	MTH112	Pre-Calculus Algebra	3
			MTH113	Pre-Calculus Trigonometry	/ I 3

3

English Comp. I

English Comp. II

Area II: Humanities and Fine Arts 3 Cr. Hrs.

ENG101

ENG102

MTH113

MTH115

MTH120

MTH125

Pre-Calculus Trigonometry I

Calculus and Its Application

Pre-Calculus Algebra &

Trigonometry

Calculus I

3

4

3

4

MTH126	Calculus II	4
MTH227	Calculus III	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus I	4
PHY214	Gen. Physics with Calculus II	4

# Area IV: History, Social and Behavioral Sciences 3 Cr. Hrs.

Course	Title Cr. H	irs.
ECO231	Principles of Macroeconomics	3
ECO232	Principles of Microeconomics	3
GEO100	World Regional Geography	3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3
POL200	Intro to Political Science	3
PSY200	General Psychology	3
PSY210	Human Growth and	
	Development	3
SOC200	Intro to Sociology	3

# Area V: Pre-professional, Major and Elective Courses 44 Cr. Hrs. (24 major core, 18 electives, 2 institutional)

Course	Title	Cr. Hrs.
BUS100	Intro to Business	3
BUS215	<b>Business Communication</b>	3
BUS241	Principles of Accounting I	3
BUS242	Principles of Accounting II	3
BUS263	Legal and Social Environm	ents 3
BUS271	Business Statistics I	3
BUS275	Principals of Management	3
BUS276	Human Resource Manager	ment 3
General I	Electives 18	Cr. Hrs.

ACT114	Intro Accounting Database	3
ACT115	Intro Accounting Resource	3
ACT195	Accounting Co-op	3
ACT201	Entrepreneurism	3
ACT249	Payroll Accounting	3
ACT253	Individual Income Tax	3
BUS146	Personal Finance	3
BUS147	Introduction to Finance	3
BUS186	Elements of Supervision	3
BUS248	Managerial Accounting	3
BUS272	Business Statistics II	3
BUS279	Small Business Management	3
BUS285	Principals of Marketing	3
CIS147	Advanced Microcomputer	
	Applications	3
CIS185	Computer Ethics	3
CIS196	Commercial Software	
	Applications	3
OAD101	Basic Key Boarding	3

# Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1
Total AA	S Degree Credit Hours	66

# **General Business-STC**

Area I: W	ritten Composition	3 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101	English Comp. I 3	
Area II: H	umanities and Fine Art	s 0 Cr. Hrs.
Area III: I Mathema	Natural Sciences and tics	6 Cr. Hrs.

Note: CIS146 and MTH100 or higher are required.

Course	Title	Cr. Hrs.	BUS263	Legal and Social Environm	
CIS146	Microcomputer Applicat		ACT201	Entrepreneurism	3
MTH100	Intermediate College Alg	gebra 3	Total ST	C Credit Hours	9
MTH110	Finite Mathematics	3			
MTH112	Pre-Calculus Algebra	3			
MTH113	Pre-Calculus Trigonomet	ry I 3	COMPIL	TER INFORMATION SYS	TEMC
MTH115	Pre-Calculus Algebra	4			
	Trigonometry		•	uter Information Systems Te	
MTH120	Calculus and Its Applicati	ion 3		vill prepare students for enti	•
MTH125	Calculus I	4		ent, advancement, and indus	•
MTH126	Calculus II	4		ons in information technolog	
MTH227	Calculus III	4		rogramming, networking, o	_
			•	veb development, and cyber	•
	History, Social & Behav		using up-t	o-date methods and techniq	ues that
Sciences	0 Cr	. Hrs.	are preval	ent in today's marketplace.	
Area V: P	re-professional, Major a Courses 15	and 5 Cr. Hrs.	Compute	er Information Systems	s - AAS
	ired, 0 institutional)		Area I: W	ritten Composition 6	Cr. Hrs.
Course	Title	Cr. Hrs.	Course	Title	Cr. Hrs.
BUS100	Intro to Business	3	ENG101	English Comp. I	3
BUS241	Principles of Accounting	I 3	ENG102	English Comp. II	3
BUS242	Principles of Accounting	II 3			
DUCACA					
BUS263	Legal and Social Environr	ments 3	Area II: F	Iumanities and Fine Arts 3	Cr. Hrs.
BUS275	Legal and Social Environr Principals of Managemer				
BUS275	Principals of Managemer	nt 3	Area II: F		Cr. Hrs.
BUS275	-				
BUS275	Principals of Managemer	nt 3	Course	Title	Cr. Hrs.
BUS275 Total STO	Principals of Managemer	nt 3	Course ART100	Title Art Appreciation	Cr. Hrs.
BUS275 Total STO	Principals of Managemer C Credit Hours Business- STC	nt 3	Course ART100 ART203	Title  Art Appreciation Art History I	<i>Cr. Hrs.</i> 3 3
BUS275 Total STO	Principals of Managemer	nt 3	Course  ART100 ART203 ENG251	Title  Art Appreciation Art History I American Literature I	<i>Cr. Hrs.</i> 3 3 3
BUS275 Total STO General Area I: W	Principals of Management C Credit Hours  Business- STC  Vritten Composition	nt 3 24 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252	Title  Art Appreciation Art History I American Literature I American Literature II	Cr. Hrs.  3 3 3 3
BUS275 Total STO General Area I: W	Principals of Managemer C Credit Hours Business- STC	nt 3 24 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261	Title  Art Appreciation Art History I American Literature I American Literature II English Literature I	Cr. Hrs.  3 3 3 3 3 3
BUS275 Total STO General Area I: W Area II: H	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts	nt 3 24 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262	Title  Art Appreciation Art History I American Literature I American Literature II English Literature II English Literature II	Cr. Hrs.  3 3 3 3 3 3 3
Total STO  General  Area I: W  Area II: H  Area III:	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and	0 Cr. Hrs. 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG262	Title  Art Appreciation Art History I American Literature I American Literature II English Literature I English Literature II World Literature I	Cr. Hrs.  3 3 3 3 3 3 3 3 3
BUS275 Total STO General Area I: W Area II: H	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and	nt 3 24 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272	Title  Art Appreciation Art History I American Literature I American Literature II English Literature I English Literature II World Literature I World Literature II	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3
Total STO  General  Area I: W  Area II: H  Area III: Mathema	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and  atics	0 Cr. Hrs. 0 Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101	Title  Art Appreciation Art History I American Literature I American Literature II English Literature I English Literature II World Literature I World Literature II Music Appreciation	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3
Total STO  General  Area I: W  Area II: H  Area III: Mathema  Area IV:	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206	Art Appreciation Art History I American Literature I American Literature II English Literature II English Literature II World Literature I World Literature II Music Appreciation Ethics & Society	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3
General Area II: H Area III: Mathema Area IV: Sciences	Principals of Managemer C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and  atics  History, Social & Behav	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. vioral O Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100	Title  Art Appreciation Art History I American Literature I American Literature II English Literature I English Literature II World Literature I World Literature II Music Appreciation Ethics & Society History of World Religions	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3
General Area I: W Area II: H Area IV: Mathema Area IV: Sciences Area V: P	Principals of Management C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and actics  History, Social & Behave Pre-professional, Major actions	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. rioral O Cr. Hrs. and	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151	Title  Art Appreciation Art History I American Literature I American Literature II English Literature II World Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3
General Area II: H Area III: Mathema Area IV: Sciences	Principals of Management C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and actics  History, Social & Behave Pre-professional, Major actions	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. vioral O Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152	Art Appreciation Art History I American Literature I American Literature II English Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
General Area I: W Area II: H Area IV: Sciences Area V: P Elective 0	Principals of Management C Credit Hours  Business- STC  Pritten Composition  Humanities and Fine Arts  Natural Sciences and etics  History, Social & Behave Pre-professional, Major and Courses  9 (	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. rioral O Cr. Hrs. and	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101	Art Appreciation Art History I American Literature I American Literature II English Literature II World Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament Introductory Spanish I	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
General Area I: W Area II: H Area IV: Sciences Area V: P Elective 0	Principals of Management C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and actics  History, Social & Behave Pre-professional, Major actions	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. rioral O Cr. Hrs. and	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101 SPA102	Art Appreciation Art History I American Literature I American Literature II English Literature II World Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament Introductory Spanish II	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
General Area I: W Area II: H Area III: Mathema Area V: P Elective 0 (9 requir	Principals of Management C Credit Hours  Business- STC  Tritten Composition  Humanities and Fine Arts  Natural Sciences and actics  History, Social & Behave Cre-professional, Major action for the courses and seed, 0 institutional)	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. rioral O Cr. Hrs. and Cr. Hrs.	Course  ART100 ART203 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101 SPA102	Art Appreciation Art History I American Literature I American Literature II English Literature II English Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament Introductory Spanish I Introductory Spanish II Fundamentals of Oral	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
General Area I: W Area II: H Area IV: Sciences Area V: P Elective 0	Principals of Management C Credit Hours  Business- STC  Pritten Composition  Humanities and Fine Arts  Natural Sciences and etics  History, Social & Behave Pre-professional, Major and Courses  9 (	o Cr. Hrs. O Cr. Hrs. O Cr. Hrs. rioral O Cr. Hrs. and	Course  ART100 ART203 ENG251 ENG251 ENG252 ENG261 ENG262 ENG271 ENG272 MUS101 PHL206 REL100 REL151 REL152 SPA101 SPA102 SPH106	Art Appreciation Art History I American Literature I American Literature II English Literature II English Literature II World Literature II World Literature II Music Appreciation Ethics & Society History of World Religions Survey of Old Testament Survey of New Testament Introductory Spanish I Introductory Spanish II Fundamentals of Oral Communication	Cr. Hrs.  3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

THR126	Intro to Theater	3	HIS201	US History I	3
Area III: I	Natural Sciences and		HIS202 POL200	US History II Intro to Political Science	3 3
Mathema		Cr. Hrs.	PSY200	General Psychology	3
- Tatticina	10		PSY210	Human Growth and	3
	146, MTH112 or higher and r science course are required		SOC200	Development Intro to Sociology	3
Course	Title	Cr. Hrs.		Pre-professional, Major and	
CIS146	Microcomputer Application	ns 3	Elective		Irs.
MTH100	Intermediate College Algeb			or core, 18 electives, 2	
MTH110	Finite Mathematics	3	institutio	onal)	
MTH112	Pre-Calculus Algebra	3	C	m: d	7.7
MTH113	Pre-Calculus Trigonometry	I 3	Course	Title Cr. 1	Hrs.
MTH115	Pre-Calculus Algebra &		CIS149	Introduction to Computers	3
	Trigonometry	4	CIS150	Intro to Computer Logic and	
MTH120	Calculus and Its Application	n 3		Programming	3
MTH125	Calculus I	4	CIS207	Web Development	3
MTH126	Calculus II	4	CIS249	Microcomputer Operating	
MTH227	Calculus III	4		Systems	3
BIO103	Principles of Biology I	4	CIS251	C++ Programming	3
BIO104	Principles of Biology II	4	CIS268	Software Support	3
CHM111	College Chemistry I	4	CIS269	Hardware Support	3
CHM112	College Chemistry II	4	CIS270	CISCO I CCNA	3
GEO101	Principles of Physical		CIS281	Systems Analysis and Design	3
	Geography I	4	_		
GEO102	Principles of Physical		General l	Electives 18 Cr.	Hrs.
	Geography II	4	CIS147	Advanced Microcomputer	
PHS111	Physical Science I	4		Applications	3
PHS112	Physical Science II	4	CIS151	Graphics for the World	
PHY120	Intro to Physics	4		Wide Web	3
PHY201	General Physics I	4	CIS157	Introduction to App	
PHY202	General Physics II	4		Development with Swift	3
PHY213	Gen. Physics with Calculus		CIS171	LINUX I	3
PHY214	Gen. Physics with Calculus	II 4	CIS172	LINUX II	3
Aroa IV. I	Jictory Social and Dohay	ioral	CIS185	Computer Ethics	3
	History, Social and Behav		CIS189	CO-OP for CIS I	3
Sciences	3 (	Cr. Hrs.	CIS196	Commercial Software	
Course	Title	Cr. Hrs.		Applications	3
Course	Title		CIS197	Adv. Commercial Software	
ECO231	Principles of Macroeconom	nics 3		Applications	3
ECO232	Principles of Microeconom	ics 3	CIS199	Network Communication	3
GEO100	World Regional Geography	3	CIS203	Intro to the Info Highway	3
HIS101	Western Civilization I	3	CIS208	Web Authoring Software	3
HIS102	Western Civilization II	3	CIS209	Advanced Web Development	3
HIS121	World History I	3	CIS212	Visual Basic Programming	3
HIS122	World History Ii	3	CIS213	Advanced Basic Programming	3

CIS215	C+ Programming	3
CIS220	App Development with Swift I	3
CIS222	Database Management	
	Systems	3
CIS227	App Development with Swift II	3
CIS245	Cyber Defense	3
CIS246	Ethical Hacking	3
CIS249	Microcomputer Operating	
	Systems	3
CIS252	Advanced C++ Programming	3
CIS255	JAVA Programming	3
CIS256	Advance Java	3
CIS271	CISCO II CCNA	3
CIS272	CISCO III CCNA	3
CIS273	CISCO IV CCNA	3
CIS276	Server Administration	3
CIS277	Network Services	
	Administration	3
CIS280	Network Security	3
CIS282	Computer Forensics	3
CIS284	CIS Internship	3
CIS287	SQL Server	3
CIS294	Special Topics Data Structures	3
CIS296	Special Topics Intro Dig DS	3
ILT263	Certification Prep Lab	3
EET115	Concepts of Digital Electronics	5
EET186	Microcomputer Fundamentals	3
EET232	Microcomputer Fundamentals	
	Lab	2
EET254	Computer Repair Lab	2
EET255	PC Repair	3
EET256	Microprocessors	3
EET257	Microprocessor Lab	2

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## Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course Hrs.	Title	Cr.	
ORI101 BSS220	Orientation to College Professional Transition		1 1
Total AAS	S Degree Credit Hours		69

# **Computer Science-STC**

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and

Mathematics 0 Cr. Hrs.

Area IV: History, Social & Behavioral Sciences 0 Cr. Hr.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

# (9 required, 0 institutional)

Course	Title	Cr. Hrs.	
CIS146	Microcomputer Application	ons 3	
CIS149	Introduction to Computer	s 3	
CIS150	Intro to Computer Logic a Programming	nd 3	
Total STC Credit Hours 9			

## **Cyber Security- STC**

The Cyber Security Certificate introduces students to the interdisciplinary field of cyber security by discussing the evolution of information security into cyber security, cyber security theory, and the relationship of cyber security to nations, businesses, society, and people. Students will be exposed to multiple cyber security technologies, processes, and procedures, learn how to analyze the threats, vulnerabilities and risks present in these environments, and develop appropriate strategies to mitigate potential cyber security problems.

Area I: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 6 Cr. Hrs.

Note: CIS146 and MTH100 or higher are required.

Course	Title Cr. 1	Hrs.
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
Area IV:	History, Social & Behavioral	
Sciences	0 Cr. Hrs.	
Elective	re-professional, Major and Courses 18 Cr. H r core, 0 institutional)	Irs.
Course	Title Cr. I	Hrs.
CIS171 CIS199 CIS246	Fundamentals of UNIX/LINUX I Network Communications Ethical Hacking	3 3 3

CIS199 Network Communications 3 CIS246 Ethical Hacking 3 CIS249 Microcomputer Operating Systems 3 CIS280 Network Security 3	CIS171	Fundamentals of UNIX/LINUX I	3
CIS249 Microcomputer Operating Systems 3 CIS280 Network Security 3	CIS199	Network Communications	3
Systems 3 CIS280 Network Security 3	CIS246	Ethical Hacking	3
CIS280 Network Security 3	CIS249	Microcomputer Operating	
•		Systems	3
CICAGA Communica Forencies	CIS280	Network Security	3
CIS282 Computer Forensics 3	CIS282	Computer Forensics	3
Total STC Credit Hours 24	Total STC Credit Hours		

# **Enterprise Programmer-STC**

This skills certificate is designed to provide the student with extended skills in object-oriented programming in the commonly used programming languages for modern enterprise systems: C++, Visual Basic, and JAVA.

Area I: W	ritten Composition	3 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101	English Comp. I	3

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and	
Mathematics	6 Cr. Hrs.

Note: CIS146 and MTH100 or higher are required.

Course	Title Cr	. Hrs.
CIS130	Intro to Information Systems	3
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	a 3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH116	Mathematical Applications	3
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4

Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 15 Cr. Hrs. (15 major core, 0 institutional)

Course	Title	Cr. Hrs.	
CIS150	Intro to Computer Logic ar	nd	
	Programming	3	
CIS212	Visual Basic Programming	3	
CIS251	C++ Programming	3	
CIS252	Advanced C++ Programmir	ng 3	
CIS255	JAVA Programming	3	
Total STC Credit Hours 24			

# **Network Administrator - STC**

The Network Administrative Certificate is designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining an understanding of the terminology and technology involved in implementing networked systems. The certificate focuses on developing in-depth knowledge and technical skills related to

creating and maintaining computer network systems. In addition, students will receive hands-on experience building a mock network in the classroom.

Area I: Written Composition		3 Cr. Hrs.	
Course	Title	Cr. Hrs.	
ENG101	English Comp. I 3		
Area II: H	Area II: Humanities and Fine Arts 0 Cr. Hrs.		
Area III: Natural Sciences and Mathematics 6 Cr. Hrs.			

Note: CIS146 and MTH100 or higher are required.

Course	Title Cr. 1	Hrs.
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4

Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 15Cr. Hrs. (15 major core, 0 institutional)

Course	Title	Cr. Hrs.
CIS249	Microcomputer Ope	rating
	Systems	3
CIS270	CISCO I	3
CIS271	CISCO II	3
CIS272	CISCO III	3
CIS273	CISCO IV	3
Total STC Credit Hours 24		

# **Program Coding-STC**

Area I: Written Composition	0 Cr. Hrs.
*	
Area II: Humanities and Fine Arts	0 Cr. Hrs.

Area III: Natural Sciences and Mathematics 0 Cr. Hrs.

Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.

# (9 major core, 0 institutional)

Course	Title Cr	. Hrs.	
CIS157	Introduction to App		
	Development with Swift	3	
CIS220	App Development with Swift	:1 3	
CIS227	App Development with Swift	: II 3	
Total STC Credit Hours 9			

# **Systems Administrator-STC**

This skills certificate is designed to provide the student with the extended skills necessary to perform in an entry-level position as a systems administrator in a Microsoft server network environment.

Area I: Written Composition	3 Cr. Hrs.		
Course Title	Cr. Hrs.		
ENG101 English Comp. I	3		
Area II: Humanities and Fine Arts	0 Cr. Hrs.		
Area III: Natural Sciences and			
Mathematics	6 Cr. Hrs.		
Note: CIS146 and MTH100 or higher are required.			
Course Title	Cr. Hrs.		

Microcomputer Applications

3

**CIS146** 

MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
Area IV. 1	History, Social & Behavioral	
_		
Sciences 0 Cr Hrs		

Area V: Pre-professional, Major and Elective Courses 15 Cr. Hrs. (15 major core, 0 institutional)

Course	Title	Cr. Hrs.
CIS149	Intro to Computers	3
CIS249	Microcomputer Operating	3
	Systems	3
CIS276	Server Administration	3
CIS277	Network Services	
	Administration	3
CIS280	Network Security	3
Total STC Credit Hours 24		

# **Web Developer-STC**

This skills certificate is designed to provide the student with extended skills for developing web pages, including the use of HTML, XHTML, and Microsoft FrontPage, DreamWeaver, and Flash web development platforms. Students successfully completing the Career Skills Certificate (CIW) associate and professional certification examinations.

Area I: Written Composition 3 Cr. Hrs.

Course	Title	Cr. Hrs.	
ENG101	English Comp. I	3	

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Note: CIS required.	146 and MTH100 or higher a	re
Course	Title Cr. I	4rs
CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113 MTH115	Pre-Calculus Trigonometry I Pre-Calculus Algebra &	3
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125 MTH126	Calculus I Calculus II	4
MTH227	Calculus III	4
<u>Sciences</u>	History, Social & Behavioral  0 Cr. 1	Hr
Sciences Area V: P Elective (	0 Cr. I re-professional, Major and Courses 15 Cr. H	
Sciences Area V: P Elective (	0 Cr. l re-professional, Major and	Irs
Sciences Area V: P Elective ( (15 majo	re-professional, Major and Courses 15 Cr. Hr core, 0 institutional)  Title Cr. II  Graphics for the Worldwide	Irs Hrs
Area V: P Elective ( (15 majo Course	o Cr. I re-professional, Major and Courses 15 Cr. H r core, 0 institutional)	Irs
Area V: P Elective ( (15 majo  Course CIS151	re-professional, Major and Courses 15 Cr. Her core, 0 institutional)  Title Cr. II  Graphics for the Worldwide Web  Multimedia for World Wide	Hrs
Area V: P Elective ( (15 majo  Course  CIS151  CIS160	re-professional, Major and Courses 15 Cr. Her core, 0 institutional)  Title Cr. II  Graphics for the Worldwide Web  Multimedia for World Wide Web  Commercial Software	3 3
Area V: P Elective ( (15 majo Course CIS151 CIS160 CIS196	re-professional, Major and Courses 15 Cr. Her core, 0 institutional)  Title Cr. II  Graphics for the Worldwide Web Multimedia for World Wide Web Commercial Software Applications Advanced Commercial Software	Hrs 3

# General and **Developmental Education**

#### Associate in Arts - AA

A student enrolled at Drake State in an Associate in Arts degree program in Liberal Arts must complete 41 semester hours of general education requirements distributed among four core discipline areas (Areas I - IV).

The student must complete 60-64 semester hours of appropriate course work to satisfy the requirements for graduation and to receive the Associate in Arts degree.

#### Area I: Written Composition 6 Cr. Hrs.

Course	Title Cr. Hrs.	
ENG101 ENG102	English Comp. I English Comp. II	3

Area II: Humanities and Fine Arts 12 Cr. Hrs.

Notes: Must complete 3 semester hours in literature\* and 3 semester hours in the arts. The remaining semester hours are to be selected from humanities and/or fine arts.

Humanities and fine arts disciplines include but are not limited to: area/ethnic studies, art and art history, foreign languages, music and music history, philosophy, ethics, religious studies, speech, theater and dance. (Prerequisites and/or developmental courses may be required prior to enrolling in these courses).

\*Must complete a 6 semester hour sequence in literature.

Course Title		Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ART204	Art History II	3

ENG251	Am	erican Litera	ture I	3
ENG252	Am	erican Litera	ture II	3
ENG271	Wo	rld Literature	e I	3
ENG272	Wo	rld Literature	e II	3
MUS101	Mu	sic Appreciat	tion	3
PHL206	Eth	ics & Society		3
RDG114	Crit	ical Reading		3
REL100	His	tory of World	d Religions	3
REL151	Sur	vey of Old Te	estament	3
REL152	Sur	vey of New T	estament	3
SPA101	Inti	oductory Sp	anish I	3
SPA102	Inti	oductory Sp	anish II	3
SPH106	Fur	ndamentals o	f	
	Ora	al Communica	ation	3
SPH107	Fur	ndamentals o	f Public	
	Spe	eaking		3
THR120	The	eater Appreci	ation	3
THR126	Inti	oduction to	Theater	3
Area	III:	Natural	Sciences	and
Mathem	natics		11 Cı	r. Hrs.

Mathematics 11 Cr. Hrs.

Notes: Must complete 3 semester hours in mathematics at the pre-calculus, algebra (MTH 112) or finite math (MTH 110) level or above. Students must complete 8 semester hours in the natural sciences, which must include laboratory experiences. (Prerequisites and/or developmental courses may be required prior to *enrolling in these courses).* 

In addition to mathematics, disciplines in the natural sciences include: astronomy, biological sciences, chemistry, geology, physical geography, earth science, physics, and physical science.

Course Title		Cr. Hrs.
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
BIO 120	Medical Terminology	3
BIO201	Human Anatomy &	
	Physiology I	4
BIO202	Human Anatomy &	
	Physiology II	4
BIO 220	General Microbiology	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4

MTH100	Intermediate Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry	3
MTH116	Mathematical Applications	3
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	General Physics with Calculus I	4
PHY214	General Physics with Calculus II	4

Area IV: History, Social and Behavioral Sciences 12 Cr. Hrs.

Notes: Must complete 3 semester hours in history\* and at least 6 semester hours in other disciplines in the social and behavioral sciences. Social and behavioral sciences include, but are not limited to: anthropology, economics, geography, political science, psychology, and sociology.

\*Must complete a 6 semester hour sequence in history.

Course Title		Cr. Hrs.
ECO231	Macroeconomics	3
ECO232	Microeconomics	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3
POL200	Intro to Political Science	3
PSY200	General Psychology	3
PSY210	Human Growth & Dev	3
SOC200	Introduction to Sociology	3

Area V: Pre-professional, Major and Elective Courses 20 Cr. Hrs.

# (18 required, 2 institutional)

Note: To satisfy Area V requirements, The Associate in Arts degree plan requires 15 additional hours from Areas II and IV in addition to CIS146. The same courses cannot be used to satisfy requirements in multiple areas. Students completing courses that have been approved for the General Studies Curriculum and are appropriate to their major and/or degree program may transfer these courses with credit applicable to their degree program among two-year and four-year colleges and universities.

# Institutional Requirements (2 credits):

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101	Orientation to College	1
BSS220	<b>Professional Transition</b>	1
Total AA	Degree Cr. Hrs.	61

## **Associate in Science - AS**

A student enrolled at Drake State in an Associate in Science degree program in General Studies must complete 41 semester hours of general education requirements distributed among four core discipline areas (Areas I - IV).

The student must complete 60-64 semester hours of appropriate course work to satisfy the requirements for graduation and to receive the Associate in Science degree.

Area I: Written	Composition	6 Cr. Hrs.
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Course	Title Cr. Hrs.	
ENG101	English Comp. I	3
ENG102	English Comp. II	3

Area II: Humanities and Fine Arts 12 Cr. Hrs

Notes: Must complete 3 semester hours in literature\* and 3 semester hours in fine arts. The remaining semester hours are to be selected from humanities and/or fine arts.

Humanities and fine arts disciplines include but are not limited to: area/ethnic studies, art and art history, foreign languages, music and music history, philosophy, ethics, religious studies, speech, theater and dance. (Prerequisites and/or developmental courses may be required prior to enrolling in these courses).

\*Must complete a 6 semester hour sequence in literature.

m. 1

Mathematics

Course '	Title			Cr. Hrs.
ART100	Art	Appreciation	1	3
ART203	Art	History I		3
ART204	Art	History II		3
ENG251	Am	nerican Litera	ture I	3
ENG252	Am	nerican Litera	ture II	3
ENG271	Wo	orld Literature	e I	3
ENG272	Wo	orld Literature	e II	3
MUS101	Mι	isic Appreciat	ion	3
PHL206	Eth	ics & Society		3
RDG114	Cri	tical Reading		3
REL100	His	tory of World	d Religions	3
REL151	Sur	Survey of Old Testament 3		
REL152	Sur	Survey of New Testament 3		
SPA101	Int	Introductory Spanish I 3		
SPA102	Int	roductory Spa	anish II	3
SPH106	Fur	ndamentals o	f Oral	
	Coi	mmunication		3
SPH107	Fur	ndamentals /	Public Spe	eaking 3
THR120	The	eater Appreci	ation	3
THR126	Int	roduction to	Theater	3
Area	III:	Natural	Science	es and

Notes: Must complete 3 semester hours in mathematics at the pre-calculus, algebra (MTH 112) or finite math (MTH 110) level or above. Students must complete 8 semester hours in the natural sciences, which must include laboratory experiences.

In addition to mathematics, disciplines in the natural sciences include: astronomy, biological sciences, chemistry, geology, physical geography, earth science, physics, and physical science.

Course Ti	tle Cr	r. Hrs.
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
BIO 120	Medical Terminology	3
BIO201	Human Anatomy &	
	Physiology I	4
BIO202	Human Anatomy &	
	Physiology II	4
BIO 220	General Microbiology	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
MTH100	Intermediate Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry	3
MTH116	Mathematical Applications	3
MTH120	Calculus And Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	General Physics with Calculu	sI4
PHY214	General Physics with Calculu	s II 4
Area IV: H	History, Social and Behavio	oral

Area IV: History, Social and Behavioral Sciences 12 Cr. Hrs.

Notes: Must complete 3 semester hours in history\* and at least 6 semester hours in other disciplines in the social and behavioral sciences. Social and behavioral sciences include, but are not limited to: anthropology, economics, geography, political science, psychology, and sociology.

Course Title Cr. Hrs.

11 Cr. Hrs.

<sup>\*</sup>Must complete a 6 semester hour sequence either in history.

ECO231	Macroeconomics	3
ECO232	Microeconomics	3
HIS121	World History I	3
HIS122	World History II	3
HIS201	US History I	3
HIS202	US History II	3
POL200	Intro to Political Science	3
PSY200	General Psychology	3
PSY210	Human Growth & Dev	3
SOC200	Introduction to Sociology	3

Area V: Pre-professional, Major and **Elective Courses** 23 Cr. Hrs.

# (21 required, 2 institutional)

To satisfy Area V requirements, the Associate in Science degree plan requires 18 additional hours from Area III in addition to CIS146. The same courses cannot be used to satisfy requirements in multiple areas. Students completing courses that have been approved for the General Studies Curriculum and are appropriate to their major and/or degree program may transfer these courses with credit applicable to their degree program among two-year and four-year colleges and universities.

## Institutional Requirements (2 credits):

Note: ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1
Total AS	Degree Cr. Hrs.	64

# **General Education - STC**

Area I: W	ritten Composition	6 Cr. Hrs.
Course	Title	Cr. Hrs.
ENG101	English Comp. I	3
ENG102	English Comp. II	3

Area II: H	umanities and		
Fine Arts		3 Cr. Hrs.	
Course	Title	Cr. Hrs.	
ART100	Art Appreciation	3	
Area III: N Mathema	Vatural Sciences and tics	7 Cr. Hrs.	
Course	Title	Cr. Hrs.	
MTH112 BIO103	Pre-Calculus Algebra Principles of Biology I	3 4	
Area IV: History, Social and Behavioral Sciences 6 Cr. Hrs.			
PSY200	General Psychology	3	
HIS101	Western Civilization I	3	
Area V: P	re-professional, Majo Courses 0	r and Cr. Hrs.	
Total STC	Credit Hours	22	

# **Health Sciences Technology**

#### **Medical Assistant**

The Medical Assistant Program is intended to prepare students to provide patient care in physician's offices, minor emergency centers, long-term care facilities, and other types of free-standing medical clinics. In the clinical setting, the medical assistant provides assistance to the physician during assessment and examination of patients, treatment interventions, and in-office diagnostic protocols. Students in this program will learn to perform physical assessments, take medical histories, take and record vital signs, administer medications, perform venipuncture, and interpret basic laboratory results.

Medical Assistants are also prepared to assume office administrative roles in physician's offices, including scheduling procedures, billing protocols, coding mechanisms, typing of medical correspondence utilizing appropriate medical terminology, office accounting procedures, and insurance processing.

# **Medical Assistant - AAS**

# Area I: Written Composition 6 Cr. Hrs.

Course	Title		Cr. Hrs.
ENG101	English Comp. I	3	
ENG102	English Comp. II	3	

# Area II: Humanities and Fine Arts 3 Cr. Hrs.

Note: If taking SPH or SPA, must take additional three credit hours of Humanities.

Course	Title	Cr. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	
	Communication	3
SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3
THR126	Intro to Theater	3

Area III: Natu	ral Sciences and
Mathematics	10 Cr. Hrs.

Course	Title	Cr. Hrs.
CIS146	Microcomputer Applicatio	ns 3
MTH100	Intermediate College Alge	bra 3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry	/ I 3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Applicatio	n 3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
BIO201	Human Anatomy &	
	Physiology I	4
BIO202	Human Anatomy &	
	Physiology II	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
GEO101	Principles of Physical	
	Geography I	4
GEO102	Principles of Physical	
	Geography II	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus	1 4
PHY214	Gen. Physics with Calculus	II 4

# Area IV: History, Social and Behavioral Sciences 3 Cr. Hrs.

# *Note: PSY210 prerequisite waived.*

Course	Title	Cr. Hrs.
ECO231	Macroeconomics	3
ECO232	Microeconomics	3
GEO100	World Regional Geograph	y 3
HIS101	Western Civilization I	3
HIS102	Western Civilization II	3
HIS121	World History I	3
HIS122	World History Ii	3
HIS201	US History I	3
HIS202	US History II	3

POL200	Intro to Political Science	3	Course	Title	Cr. Hrs.
PSY200 PSY210	General Psychology Human Growth and	3	ORI101 BSS220	Orientation to College Professional Transition	1 1
SOC200	Development Intro to Sociology	3 3	D33220	Troicssional Transition	•
	-	3	Total AA	S Degree Credit Hours	64
	re-professional, Major and Courses 42 Cr. Hrs.		Total III	5 Degree Greate Hours	04
Elective	Lourses 42 Cr. Hrs.		Medical	Assistant - CER	
(40 majo	r core, 2 institutional)				
Course	Title Cr.	Hrs.	Area I: W	Vritten Composition	3 Cr. Hrs.
			Course	Title	Cr. Hrs.
BIO120	Medical Terminology	3			
MAT102	Medical Assisting Theory I	3	ENG101	English Comp. I 3	
MAT103 MAT111	Medical Assisting Theory II Clinical Procedures I for the	3	Area II: I	Humanities and Fine Arts	3 Cr. Hrs.
IVIATIII	Medical Assistant	3	111 00 111 1		0 01111101
MAT120	Medical Administrative	3	Note: If to	iking SPH or SPA, must tal	ke
WIATIZO	Procedures I	3		l three credit hours of Hui	
MAT121	Medical Administrative	J	dddidioidid	r on oo or out on our s of the	Total Coo.
	Procedures II	3	Course	Title	Cr. Hrs.
MAT125	Laboratory Procedures I for th		ART100	Art Appreciation	3
	Medical Assistant	3	ART203	Art History I	3
MAT200	Management of Office		ENG251	American Literature I	3
	Emergencies	2	ENG252	American Literature II	3
MAT211	Clinical Procedures II for the		ENG261	English Literature I	3
	Medical Assistant	3	ENG262	English Literature II	3
MAT215	Laboratory Procedures II for t	he	ENG271	World Literature I	3
	Medical Assistant	3	ENG272	World Literature II	3
MAT216	Medical Pharmacology for the	9	MUS101	Music Appreciation	3
	Medical Office	4	PHL206	Ethics & Society	3
MAT220	Medical Office Insurance	3	REL100	History of World Religio	
MAT228	Medical Assisting Review		REL151	Survey of Old Testamen	
	Course	1	REL152	Survey of New Testame	
MAT229	Medical Assisting		SPA101	Introductory Spanish I	3
	Preceptorship	3	SPA102	Introductory Spanish II	3
С Т		T	SPH106	Fundamentals of Oral	
General E	Electives 0 Cr. I	ars.		Communication	3
MAT227	Special Topics in Medical		SPH107	Fundamentals of Public	
	Assisting	1		Speaking	3
MAT239	Phlebotomy Preceptorship	3	THR120	Theater Appreciation	3
OAD101	Basic Key Boarding	3	THR126	Intro to Theater	3
Institutio	nal Requirements (2 credits)	) <i>.</i>			
			Area III:	Natural Sciences and	
	I101 must be taken in the BSS220 must be taken in the	-	Mathema	atics 10	Cr. Hrs.
semester.	255220 must be tunen in the	o jiiiui	Course	Title	Cr. Hrs.

CIS146	Microcomputer Applications	3
MTH100	Intermediate College Algebra	3
MTH110	Finite Mathematics	3
MTH112	Pre-Calculus Algebra	3
MTH113	Pre-Calculus Trigonometry I	3
MTH115	Pre-Calculus Algebra &	
	Trigonometry	4
MTH120	Calculus and Its Application	3
MTH125	Calculus I	4
MTH126	Calculus II	4
MTH227	Calculus III	4
BIO103	Principles of Biology I	4
BIO104	Principles of Biology II	4
BIO201	Human Anatomy &	
	Physiology I	4
BIO202	Human Anatomy &	
	Physiology II	4
CHM111	College Chemistry I	4
CHM112	College Chemistry II	4
GEO101	Principles of Physical	
	Geography I	4
GEO102	Principles of Physical	
	Geography II	4
PHS111	Physical Science I	4
PHS112	Physical Science II	4
PHY120	Intro to Physics	4
PHY201	General Physics I	4
PHY202	General Physics II	4
PHY213	Gen. Physics with Calculus I	4
PHY214	Gen. Physics with Calculus II	4
A 117 T	The Control of Delay	.1
	listory, Social and Behavior	
Sciences	0 Cr. 1	Hrs.

Note: PSY210 prerequisite waived.

Area V: Pre-professional, Major and Elective Courses 43 Cr. Hrs.

# (41 major core, 2 institutional)

Course	Title	Cr. Hrs.
BIO120	Medical Terminology	3
MAT102	Medical Assisting Theory I	3
MAT103	Medical Assisting Theory I	I 3

	TVICalcal / 15515tailt	_
MAT120	Medical Administrative	
	Procedures I	3
MAT121	Medical Administrative	
	Procedures II	3
MAT125	Laboratory Procedures I for the	
	Medical Assistant	3
MAT200	Management of Office	
	Emergencies	2
MAT211	Clinical Procedures II for the	
	Medical Assistant	3
MAT215	Laboratory Procedures II for the	!
	Medical Assistant	3
MAT216	Medical Pharmacology for the	
	Medical Office	4
MAT220	Medical Office Insurance	3
MAT227	Special Topics in Medical	
	Assisting	1
MAT228	Medical Assisting Review	
	Course	1
MAT229	Medical Assisting	
	Preceptorship	3
	10 (0 11:)	

Clinical Procedures I for the

3

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Medical Assistant

MAT111

# *Institutional Requirements (2 credits):*

**Note:** ORI101 must be taken in the first semester. BSS220 must be taken in the final semester.

Course Hrs.	Title	Cr.	
ORI101	Orientation to College		1
BSS220	Professional Transition		1

# **Medical Assistant- STC**

**Total Certificate Credit Hours** 

Area II: Written Composition 0 Cr. Hrs.

Area II: Humanities and Fine Arts 0 Cr. Hrs.

Area III: Natural Sciences and

Mathematics 0 Cr. Hrs.

Area V: Pre-professional, Major and Elective Courses 27 Cr. Hrs.  Course Title Cr. Hrs.  BIO120 Medical Terminology 3 MAT102 Medical Assisting Theory I 3 MAT103 Medical Assisting Theory II 3 MAT111 Clinical Procedures I for the Medical Assistant 3 MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3 MAT125 Laboratory Procedures I for the	Area I: Written Composition 0 Cr. Hrs.  Area II: Humanities and Fine Arts 0 Cr. Hrs.  Area III: Natural Sciences and Mathematics 0 Cr. Hrs.  Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and Elective Courses 9 Cr. Hrs.
Course Title Cr. Hrs.  BIO120 Medical Terminology 3 MAT102 Medical Assisting Theory I 3 MAT103 Medical Assisting Theory II 3 MAT111 Clinical Procedures I for the Medical Assistant 3 MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3	Area III: Natural Sciences and  Mathematics 0 Cr. Hrs.  Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and
MAT102 Medical Terminology 3 MAT102 Medical Assisting Theory I 3 MAT103 Medical Assisting Theory II 3 MAT111 Clinical Procedures I for the Medical Assistant 3 MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3	Mathematics 0 Cr. Hrs.  Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and
MAT102 Medical Assisting Theory I 3 MAT103 Medical Assisting Theory II 3 MAT111 Clinical Procedures I for the Medical Assistant 3 MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3	Mathematics 0 Cr. Hrs.  Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and
MAT103 Medical Assisting Theory II 3 MAT111 Clinical Procedures I for the Medical Assistant 3 MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3	Area IV: History, Social & Behavioral Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and
MAT111 Clinical Procedures I for the Medical Assistant 3  MAT120 Medical Administrative Procedures I 3  MAT121 Medical Administrative Procedures II 3	Sciences 0 Cr. Hrs.  Area V: Pre-professional, Major and
Medical Assistant 3  MAT120 Medical Administrative Procedures I 3  MAT121 Medical Administrative Procedures II 3	Area V: Pre-professional, Major and
MAT120 Medical Administrative Procedures I 3 MAT121 Medical Administrative Procedures II 3	
Procedures I 3  MAT121 Medical Administrative Procedures II 3	
MAT121 Medical Administrative Procedures II 3	Elective Courses 9 Cr. Hrs.
Procedures II 3	
	Course Title Cr. Hrs.
/IDIT 15 Laboratory Procedures I for the	Course Title Cr. III's.
•	MAT102 Medical Assisting Theory I 3
Medical Assistant 3	MAT220 Medical Office Insurance 3
MAT200 Management of Office Emergencies 2	OAD101 Basic Key Boarding 3
Emergencies 2  MAT216 Medical Pharmacology for the	Total STC Credit Hours 9
Medical Office 4	Total STC Credit Hours 9
Wedical Office 4	
Total STC Credit Hours 27	<u>Phlebotomy - STC</u>
	Area I: Written Composition 0 Cr. Hrs.
Medical Assistant Administrative- STC	
Arres I Whither Commenting Of the Har	Area II: Humanities and Fine Arts 0 Cr. Hrs.
Area I: Written Composition 0 Cr. Hrs.	Area III: Natural Sciences and
Area II: Humanities and Fine Arts 0 Cr. Hrs.	Mathematics 0 Cr. Hrs.
Area III: Natural Sciences and	Area IV: History, Social & Behavioral
Mathematics 0 Cr. Hrs.	Sciences 0 Cr. Hrs.
definition of the first	Sciences 0 Ci. III S.
Area IV: History, Social & Behavioral	Area V: Pre-professional, Major and
Sciences 0 Cr. Hrs.	Elective Courses 9 Cr. Hrs.
	MAT125 Laboratory Procedures I for
Area V: Pre-professional, Major and	the Medical Assistant 3
Elective Courses 9 Cr. Hrs.	MAT215 Laboratory Procedures II for
Course Title Cr. Hrs.	the Medical Assistant 3
	MAT239 Phlebotomy Preceptorship 3
MAT120 Medical Administrative	
Procedures I 3	Total STC Credit Hours 9
MAT121 Medical Administrative	
Procedures II 3	
MAT220 Medical Office Insurance 3	
Fotal STC Credit Hours 9	

# Nursing

A program that generally prepares individuals in the knowledge, techniques and procedures for promoting health, providing care for sick, disabled, infirmed, or other individuals or groups. Includes instruction in the administration of medication and treatments, assisting a physician during treatments and examinations, Referring patients to physicians and other health care specialists, and planning education for health maintenance.

# **Registered Nursing - AAS**

	Area I: Written	Composition	3 Cr. Hrs.
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Course	Title		Cr. Hrs.
ENG101	English Comp. I	3	

Area II: Humanities and Fine Arts 6 Cr. Hrs.

Note: Must take 1 SPH and 1 Humanities course.

Course	Title Cr	r. Hrs.
ART100	Art Appreciation	3
ART203	Art History I	3
ENG251	American Literature I	3
ENG252	American Literature II	3
ENG261	English Literature I	3
ENG262	English Literature II	3
ENG271	World Literature I	3
ENG272	World Literature II	3
MUS101	Music Appreciation	3
PHL206	Ethics & Society	3
PHL210	Ethics for the Health Science	s 3
REL100	History of World Religions	3
REL151	Survey of Old Testament	3
REL152	Survey of New Testament	3
SPA101	Introductory Spanish I	3
SPA102	Introductory Spanish II	3
SPH106	Fundamentals of Oral	
	Communication	3

SPH107	Fundamentals of Public	
	Speaking	3
THR120	Theater Appreciation	3
THR126	Intro to Theater	3
Area III: N	Natural Sciences and tics	15 Cr. Hrs.

Note: MTH100 or higher, BIO201, BIO202, BIO220 are required.

Course	Title Cr. 1	Hrs.			
MTH100	Intermediate College Algebra	3			
MTH110	Finite Mathematics	3			
MTH112	Pre-Calculus Algebra	3			
MTH113	Pre-Calculus Trigonometry I	3			
MTH115	Pre-Calculus Algebra &				
	Trigonometry	4			
MTH120	Calculus and Its Application	3			
MTH125	Calculus I	4			
MTH126	Calculus II	4			
MTH227	Calculus III	4			
BIO201	Human Anatomy &				
	Physiology I	4			
BIO202	Human Anatomy &				
	Physiology II	4			
BIO220	Microbiology	4			
Area IV: History, Social and Behavioral					
Sciences	3 Cr.	Hrc			
		1113.			
	7210 is required. (Prerequisit				
Note: PS	7210 is required. (Prerequisit				
Note: PSY waived)	7210 is required. (Prerequisit	е			
Note: PSY waived) Course	7210 is required. (Prerequisit	е			
Note: PSY waived) Course PSY210	Title Cr. Human Growth and Development  Pre-professional, Major and	е Н <i>rs.</i> 3			
Note: PSY waived) Course PSY210 Area V: PElective (	Title Cr. Human Growth and Development  Pre-professional, Major and	е Н <i>rs.</i> 3			
Note: PSY waived) Course PSY210 Area V: PElective (	Title Cr. Human Growth and Development Pre-professional, Major and Courses 41 Cr.	е Н <i>rs.</i> 3			

	Nursing	7	REL151	Survey of Old Testame	nt 3
NUR113	Nursing Concepts I	8	REL152	Survey of New Testame	
NUR114	Nursing Concepts II	8	SPA101	Introductory Spanish I	3
NUR114 NUR115	Evidence Based Clinical	0	SPA101 SPA102	Introductory Spanish II	
MOKIIS		2			3
NII 15244	Reasoning	2	SPH106	Fundamentals of Oral	2
NUR211	Advanced Nursing Concepts	7		Communication	3
NUR221	Advanced Evidence Based		SPH107	Fundamentals of Publi	
	Clinical Reasoning	7		Speaking	3
			THR120	Theater Appreciation	3
Institutio	onal Requirements (2 credit	s):	THR126	Intro to Theater	3
	RI101 must be taken in t	-	Area III:	Natural Sciences and	
semester.	BSS220 must be taken in t	ne finai	Mathema	atics 15 Cr. Hrs.	
Course	Title C.	r.	Note: MT	H100 or higher, BI0201,	. BIO202,
Hrs.				re required.	,
ORI101	Orientation to College	1	Course	Title	Cr. Hrs.
BSS220	Professional Transition	1	MTH100	Intermediate College A	Algebra 3
			MTH110	Finite Mathematics	3
Total AA	S Degree Credit Hours	68	MTH112	Pre-Calculus Algebra	3
1 Otal 1111	5 Degree create frours	00	MTH113	Pre-Calculus Trigonom	
			MTH115	Pre-Calculus Algebra &	,
<b>Nursing</b>	Mobility - AAS		WIIIIII	Trigonometry	4
	<u> </u>		MTH120	Calculus and Its Applica	
Area I: W	Vritten Composition 3 (	Cr. Hrs.	MTH125	Calculus I	4
			MTH125	Calculus II	4
Course	Title C	r. Hrs.			
ENG101	English Comp. I 3		MTH227	Calculus III	4
ENGIOI	Eligiisii Collip. 1 3		BIO201	Human Anatomy &	
Area II. I	Humanities and Fine Arts 6 (	r Hrc	510000	Physiology I	4
m ca m. i	Tulliamides and Tille Tiles OV	31. 1113.	BIO202	Human Anatomy &	
Note: Mu	ıst take 1 SPH and 1 Humar	nities		Physiology II	4
course.			BIO220	Microbiology	4
C	m: 1	7.7	Area IV:	History, Social and Be	havioral
Course		r. Hrs.	Sciences		3 Cr. Hrs.
ART100	Art Appreciation	3	••	W0404	
ART203	Art History I	3		Y210 is required. (Prer	equisite
ENG251	American Literature I	3	waived)		
ENG252	American Literature II	3		mu.1	
ENG261	English Literature I	3	Course	Title	Cr. Hrs.
ENG262	English Literature II	3	PSY210	Human Growth and	
ENG271	World Literature I	3	. 31210	Development	3
ENG272	World Literature II	3		Development	3
MUS101	Music Appreciation	3	Area V· F	Pre-professional, Majo	r and
PHL206	Ethics & Society	3	Elective		26 Cr. Hrs
PHL210	Ethics & Society  Ethics for the Health Science		FIECUVE	GUUISES	20 GI. III S
			(24 maio	or core, 2 institutional	)
REL100	History of World Religions	3	(= 1 majo	1 core, 2 montanonar	J

Course	Title Cr. Hrs.		REL152 SPA101	Survey of New Testam Introductory Spanish I	3
NUR209	Concepts for Healthcare Transition Students	10	SPA102 SPH106	Introductory Spanish II Fundamentals of Oral Communication	3
NUR211	Advanced Nursing Concepts 1	7	SPH107	Fundamentals of Publi Speaking	
NUR221	Advanced Evidence-Base Clinical Reasoning	d 7	THR120 THR126	Theater Appreciation Intro to Theater	3
Institutio	onal Requirements (2 cre	dits):	Area III:	Natural Sciences and	
	RI101 must be taken in BSS220 must be taken i		Mathema Note: MT		11 Cr. Hrs.
Course Hrs.	Title	Cr.	Course	Title	Cr. Hrs.
ORI101 BSS220	Orientation to College Professional Transition	1 1	MTH100 MTH110	Intermediate College A Finite Mathematics	3
Total AA	S Degree Credit Hours	53	MTH112 MTH113 MTH115	Pre-Calculus Algebra Pre-Calculus Trigonom Pre-Calculus Algebra &	•
<b>Practica</b>	l Nursing- CER			Trigonometry	4
Area I: W	ritten Composition	3 Cr. Hrs.	MTH120 MTH125 MTH126	Calculus and Its Applic Calculus I Calculus II	ation 3 4 4
Course	Title	Cr. Hrs.	MTH227	Calculus III	4
ENG101	English Comp. I 3		BIO201	Human Anatomy & Physiology I	4
Area II: F	Humanities and Fine Arts	3 Cr. Hrs.	BIO202	Human Anatomy & Physiology II	4
Note: SPI	H107 is required		BIO220	Microbiology	4
Course	Title	Cr. Hrs.	Area IV:	History, Social and Be	havioral 3 Cr. Hrs.
ART100 ART203 ENG251 ENG252	Art Appreciation Art History I American Literature I American Literature II	3 3 3 3	Note: PS! waived)	Y210 is required. (Prer	equisite
ENG252	English Literature I	3	Course	Title	Cr. Hrs.
ENG262 ENG271 ENG272	English Literature II World Literature I World Literature II	3 3 3	PSY210	Human Growth and Development	3
MUS101 PHL206 PHL210	Music Appreciation Ethics & Society Ethics for the Health Scie		Area V: F Elective	Pre-professional, Majo Courses	r and 27 Cr. Hrs.
REL100 REL151	History of World Religion Survey of Old Testament		(25 majo	or core, 2 institutional	)

Course	Title Cr. Hrs.		Area III: Mathema	Natural Sciences and atics	3 Cr. Hrs.
NUR112	Fundamental Concepts of Nursing	of 7	Note: MTI	H 116 or Higher is require	d.
NUR113 NUR114	Nursing Concepts I Nursing Concepts II	8 8	Course	Title	Cr. Hrs.
NUR115	Evidence Based Clinical Reasoning	2	MTH116 MTH100	Mathematical Applicat Intermediate College A	lgebra 3
	onal Requirements (2 cre		MTH110 MTH112 MTH113	Finite Mathematics Pre-Calculus Algebra Pre-Calculus Trigonome	3 3 etrv I 3
	RI101 must be taken in BSS220 must be taken i		MTH115	Pre-Calculus Algebra & Trigonometry	•
Course Hrs.	Title	Cr.	MTH120 MTH125 MTH126	Calculus and Its Applica Calculus I Calculus II	· ·
ORI101 BSS220	Orientation to College Professional Transition	1 1	MTH227	Calculus III	4
D33220	Troressional Transition	-	Area IV: <u>Sciences</u>	History, Social & Beha	avioral <u>0 Cr. Hrs.</u>
Total CE	R Credit Hours	47	Area V: F	Pre-professional, Majo	r and 7 Cr. Hrs.
	Assistant - STC		NUR112	Fundamental Concepts Nursing	
Area I: W	ritten Composition	0 Cr. Hrs.		· ·	·
Area II: F	Humanities and Fine Arts	0 Cr. Hrs.	Total ST	C Credit Hours	10

## **COURSE DESCRIPTIONS**

# **Advanced Manufacturing Technology**

# **Electrical (ELT)**

#### ELT108 – DC Fundamentals - (3 cr. hrs.)

This course is designed to provide students with a working knowledge of basic direct current (DC) electrical principles. Topics include safety, basic atomic structure and theory, magnetism, conductors, insulators, use of Ohm's law to solve for voltage, current, and resistance, electrical sources, power, inductors, and capacitors. Students will perform lockout/tagout procedures, troubleshoot circuits and analyze series, parallel, and combination DC circuits using the electrical laws and basic testing equipment to determine unknown electrical quantities. This course is also taught as ILT 160. This is a **CORE** course. PREREQUISITE: As required by program.

#### ELT109 – AC Fundamentals - (3 cr. hrs.)

This course is designed to provide students with a working knowledge of basic alternating current (AC) electrical principles. Topics include basic concepts of electricity, electrical components, basic circuits, measurement instruments, the laws of alternating current, and electrical safety with lockout procedures. Hands on laboratory exercises are provided to analyze various series, parallel, and combination alternating current circuit configurations containing resistors, inductors, and capacitors. Upon course completion, students will be able to describe and explain alternating current circuit fundamentals such as RLC circuits, impedance, phase relationships, and power factors. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. This course is also taught as ILT161. This is a **CORE** course. PREREQUISITE: As required by program.

#### ELT114 – Residential Wiring Methods - (3 cr. hrs.)

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. This is a **CORE** course. PREREQUISITE: As required by program.

#### ELT115 - Residential Wiring Methods II - (3 cr. hrs.)

This course is a study of residential wiring practices and methods, the NEC requirements and residential blueprint interpretations. This is a **CORE** course.

#### ELT117 - AC/DC Machines - (3 cr. hrs.)

This course covers the theory and operation of DC motors single and three phase AC motors and the labs will reinforce this knowledge. Emphasis is placed on the various types of single and three phase motors, wiring diagrams, starting devices, and practical application in the lab. PREREQUISITE: As required by program. This is a **CORE** course.

#### ELT118 – Commercial/Industrial Wiring I - (3 cr. hrs.)

This course focuses on principles and applications of commercial and industrial wiring. Topics include, electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles. PREREQUISITE: As required by program. This is a **CORE** course.

#### ELT209 - Motor Controls I - (3 cr. hrs.)

This course is a study of the construction, operating characteristics, and installation of different motor control circuits and devices. Emphasis is placed on the control of three phase AC motors. This course covers the use of motor control symbols, magnetic motor starters, running overload protection, pushbutton stations, multiple control stations, two wire control, three wire control, jogging control, sequence control, and ladder diagrams of motor control circuits. Upon completion, students should be able to understand the operation of motor starters, overload protection, interpret ladder diagrams using pushbutton stations and understand complex motor control diagrams. This is a **CORE** course.

#### ELT230 – Programmable Controls – (6 cr. hrs.)

This state-of-the-art course includes the fundamental principles of programmable logic controls (PLC's) including hardware, programming and program design. Emphasis is placed on hardwiring associated with PLC, different options available with most PLC's basic ladder logic programming, developing working programs, timers, counters, different special functions, and designing programs from existing hardwired systems. Upon completion, students should be able to develop programs, load programs into PLC's and troubleshoot the system.

# ELT253 - Industrial Robotics - (3 cr. hrs.)

This course provides instruction in concepts and theories for the operation of robotic servo motors and power systems used with industrial robotic equipment. Emphasis is on the application of the computer to control power systems to perform work. Student competencies include understanding of the functions of hydraulic, pneumatic, and electrical power system components, ability to read and interpret circuitry for proper troubleshooting and ability to perform preventative maintenance. PREREQUISITE: As required by program.

#### **ELT254 – Robot Maintenance and Troubleshooting (3 cr. hrs.)**

This course introduces principle concepts troubleshooting and maintenance of robots. Topics include Recognize and describe major robot component. Students will learn to diagnose robot mechanical problems to the component level, replacement of mechanical components and perform adjustments, troubleshooting class 1, 2, and 3 faults, to manipulate I/O for the robot, and periodic and preventive maintenance. Students will learn how to safely power up robots for complete shutdown and how to manipulate robots using the teach pendant. Upon completion students will be able to describe the various robot classifications, characteristics, explain system operations of simple robots, and maintain robotic systems.

# INT126 – Preventive Maintenance – (3 cr. hrs.)

This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts.

# **Engineering Design (DDT)**

#### ADM101 – Precision Measurement – (3 cr. hrs.)

This course covers the use of precision measurement instruments utilized in inspection. In addition, basic print reading techniques reverse engineering, and related industry standards required in advanced manufacturing disciplines are covered. Upon completion, students should be able to demonstrate correct use of precision measuring instruments, interpret basic prints and apply basic reverse engineering techniques. PREREQUISITE: As required by program.

Note: This is a suitable substitute for MTT 127.

#### ADM102 – Computer Aided Design – (3 cr. hrs.)

This course is an introduction to basic Computer Aided Design functions and techniques using "hands-on" applications. Topics include terminology, hardware, basic computer aided design (CAD) and operating system functions, file manipulation, industry standards for CAD drawings, and basic CAD software applications in producing softcopy and hardcopy. At the completion of this course, students should be proficient in the production of two-dimensional drawings that meets technical standards including setting up print styles and exporting drawings to the appropriate format.

## ADM106 – Quality Control Concepts – (3 cr. hrs.)

This course provides an overview of the materials and processes and quality assurance topics used in commercial and specialized manufacturing products. Emphasis is placed on process evaluation techniques that can be extrapolated to other system areas such as new products and new technology. Emphasis is also placed on quality assurance including the history of the quality movement, group problem solving, and statistical methods such as statistical process control (SPC), process capability studies, and the concepts associated with lean manufacturing. PREREQUISITE: As required by program.

#### ADM107 – CAD Concepts – (3 cr. hrs.)

This course provides an introduction of Computer-Aided Drafting (CAD) techniques and terminology. Concepts to include CAD software, and skills necessary to perform the basic computer aided drafting functions. Related lab projects are developed from CAD to reinforce knowledge of various shop drawing concepts, software commands, and file management that will be used in the Computer Integrated Manufacturing (CIM). The course will provide an overview of CIM which will include the study of manufacturing planning, integration, and implementation of automation. This course explores manufacturing history, individual processes, systems, and careers. In addition to technical concepts, the course incorporates finance, ethics, and engineering design.

## ADM108 – Intro to 3D Modeling – (3 cr. hrs.)

This course introduces basic 3Dimensional (3D) modeling functions and techniques and the parametric concept. "Hands-on" class structure utilizes various 3D software applications. Topics include terminology, hardware, basic 3D modeling involving sketching and 3D feature creations, feature application and operating system functions. Students will be able to generate basic 3D parts and associated working drawings in soft and hard copy format. PREREQUISITE: As required by program.

#### ADM110 – Blueprint Reading – (3 cr. hrs.)

This course is designed to provide students with a comprehensive understanding of blueprint reading. Topics include identifying types of lines and symbols used in mechanical drawings; recognition and interpretation of various types of views, tolerance, and dimensions. PREREQUISITE: As required by program.

#### ADM111 - Manufacturing Safety Practices - (3 cr. hrs.)

This course is an introduction to general issues, concepts, procedures, hazards, and safety standards found in an industrial environment. This safety course is to make technicians aware of safety issues associated with their changing work environment and attempt to eliminate industrial accidents. This course will offer credentialing for NCCER Core and OSHA 10 hour. PREREQUISITE: As required by program.

#### ADM114 - Design Innovation - (3 cr. hrs.)

This course introduces students to concepts that enable them to think like a designer when approaching architectural, engineering and additive manufacturing tasks. Emphasis will be placed on design and problem-solving skills when working independently, or with a team. This course focuses on giving students exposure to creativity, problem solving skills, and the design processes in which a design-centered approached will be employed to develop innovated solutions. This course includes components to develop basic skills to express innovated solutions to design problems with the application of projects, drawings, as well as oral and written communication skills. Students will be introduced to related computer based tools used by architect, engineers, and design manufacturers. (e.g., spreadsheet, word processing, presentation software, and Internet).

# ADM 128 - Plastic Material Processes - (3 cr. hrs.)

This course in plastic materials and processes includes the basic principles and methodology of various material types and manufacturing processes. Comparison of selecting the best type of manufacturing for product will be discussed. Student will learn proper instruction on safety operations, set-up and maintenance and production of parts on a Fused Deposition Manufacturing (FDM) printer or Rapid Prototype (RP) System. Emphasis is directed on 3D modeling software program (such as Solid works) and Insight software 2/3D sketches, RP manufacturing technologies, FDM usages and processing with various types of manufactured plastics. Upon completion, students should be able to discuss and understand the significance of materials properties and structure, basic rapid prototyping, and express and interpret material specifications and be able to select the best process for the type of product being produced.

# ADM215 - Geometric Dimensioning and Tolerancing - (3 cr. hrs.)

This course is designed to teach fundamental concepts of size description by geometric methods including appropriate engineering controls. Emphasis is placed on the drawing and application of common geometric dimensioning and tolerancing symbols to engineering drawings as designated by the latest ANSI/ASME Standards. Upon completion, students should be able to use geometric dimensioning and tolerancing symbols in applying size information and manufacturing controls to working drawings.

#### ADM216 – 3D Graphics and Animation - (3 cr. hrs.)

This course is design to challenge the imagination of the student in a 3-dimensional problem solving environment. The student will be given a basic introduction to the concepts of 3D design and animation, then apply those concepts to a design project. Upon completion, students should be able to create and animate objects in a 3-dimensional environment.

#### ADM260 – Portfolio - (3 cr. hrs.)

This course includes the preparation of technical and or architectural drawings for a portfolio presentation and a resume for portfolio presentation. Upon completion, students should be able to prepare and produce a resume and portfolio for presentation in both hard copy as well as electronic copy.

# ADM261 – Reverse Engineering - (3 cr. hrs.)

This course emphasizes reverse engineering techniques and quality control inspection of parts employing 3D printing, scanning, and Coordinate Measuring Machine (CMM technologies). The emphasis is on using applicable software to convert scanned images from point cloud data into 3D models. The process will allow using software to clean up point cloud data, create airtight 3D models, run a comparison analysis of collected data to solid, improve or reproduce a scanned part, print the part and then perform an inspection using CMM probe for additional analysis and comparison.

## ADM283 - CO-OP - (3 cr. hrs.)

These courses constitute a series wherein the student works on a part-time basis in a job directly related to advanced manufacturing. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

## DDT130 – Fundamentals of Drafting for Related Trades - (3 cr. hrs.)

This course covers the theory for an overview of related trades drafting. Topics include civil, piping, electronic and welding drawings. Upon completion, students should be able to identify the basic information used to produce drawings related to these fields. PREREQUISITE: As required by college.

#### DDT144 - Basic 3D Modeling – (3 cr. Hrs.)

This course is an introduction to 3D solid modeling techniques utilizing feature-based, constraint-based parametric design. This course encourages the student to visualize parts in which they will design. Upon completion of the course students should be able to create basic 3D models and 2D working drawings. Prerequisite: DDT124 and DDT128.

# DDT226 - Technical Illustration - (3 cr. hrs.)

This course provides the student with various methods of illustrating structures and machine parts. Topics include axonometric drawings; exploded assembly drawings; one point, two point, and three point perspectives, surface textures, and renderings. Upon completion, students should be able to produce drawings and illustrations using the previously described methods. PREREQUISITE: DDT111, DDT124, DDT235.

#### DDT233 – Intermediate 3D Modeling - (3 cr. hrs.)

This course provides instruction in 3D Design Modeling utilizing the 3D capabilities of CAD software. Emphasis is placed on 3D wire-frame, surface and solids modeling along with the development of 2D detail drawings from 3D models. Upon completion, students should be able to generate 3D surface and solid models and 2D orthographic production drawings from created solid models. PREREQUISITE: DDT111, DDT124.

## DDT235 - Specialized CAD - (3 cr. hrs.)

This course allows the student to plan, execute, and present results of individual projects in Specialized CAD topics. Emphasis is placed on enhancing skill attainment in Specialized CAD skill sets. The student will be able to demonstrate and apply competencies identified by the instructor. PREREQUISITE: Permission of instructor.

#### DDT239 - Independent Studies - (3 cr. hrs.)

This course provides practical application of prior attained skills and experiences as selected by the instructor for the individual student. Emphasis is placed on applying knowledge from prior courses toward the solution of individual drafting and design problems. With completion of this course, the student will demonstrate the application of previously attained skills and knowledge in the solution of typical drafting applications and problems. PREREQUISITE: Permission of instructor.

# **Machine Tool (MTT)**

#### MTT107 - Machining Calculations I - (3 cr. hrs.)

This course introduces basic calculations as they relate to machining occupations. Emphasis is placed on basic calculations and their applications in the machine shop. Upon completion, students should be able to perform basic shop calculations. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

## MTT125 - Introduction to Machining Technology - (3 cr. Hrs.)

This course introduces precision machining processes as they relate to the metalworking industry. Topics include machine shop safety, precision measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform basic measurement and layout, drilling, sawing, turning, and milling to make parts and tools. PREREQUISITE: As required by program.

## MTT128 – Geometric Dimensioning and Tolerancing I - (3 cr. hrs.)

This course is designed to teach students how to interpret engineering drawings using modern conventions, symbols, datums, datum targets, and projected tolerance zones. Special emphasis is placed upon print reading skills, and industry specifications and standards. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

#### MTT129 – Lathe Operations (6 cr. hrs.)

This course includes more advanced lathe practices such as set-up procedures, work planning, innerand outer-diameter operations, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced lathe techniques. MTT134 AND MTT135 are suitable substitutes for MTT129. This course is aligned with NIMS standards. PREREQUISITE: As required by program.

#### MTT134 - Lathe Operations I – (3 cr. hrs.)

This course includes more advanced lathe practices such as set-up procedures, work planning, innerand outer-diameter operations, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced lathe techniques. MTT 134/135 are suitable substitutes for MTT 129. This course is aligned with NIMS standards.

#### MTT135 – Lathe Operations I Lab – (3 cr. hrs.)

This course includes more advanced lathe practices such as set-up procedures, work planning, innerand outer-diameter operations, and inspection and process improvement. Additional emphasis is placed on safety procedures. Upon completion, students will be able to apply advanced lathe techniques. MTT 134/135 are suitable substitutes for MTT 129. This course is aligned with NIMS standards.

## MTT139 – Basic Computer Numerical Control - (3 cr. hrs.)

This course introduces the concepts and capabilities of computer numeric control (CNC) machine tools. Topics include setup, operation, and basic applications. Upon completion, students should be able to develop a basic CNC program to safely operate a lathe and milling machine. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

## MTT140 – Basic Computer Numerical Control Turning Programming I - (3 cr. hrs.)

This course covers concepts associated with basic programming of a computer numerical control (CNC) turning center. Topics include basic programming characteristics, motion types, tooling, workholding devices, setup documentation, tool compensations, and formatting. Upon completion, students should be able to write a basic CNC turning program that will be used to produce a part. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

## MTT141 - Basic Computer Numeric Control Milling Programming I - (3 cr. hrs.)

This course covers concepts associated with basic programming of a computer numerical control (CNC) milling center. Topics include basic programming characteristics, motion types, tooling, workholding devices, setup documentation, tool compensations, and formatting. Upon completion, students should be able to write a basic CNC milling program that will be used to produce a part. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

#### MTT147 - Introduction to Machine Shop I - (3 cr. hrs.)

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, saws, milling machines, bench grinders, and layout instruments. Upon completion, students will be able to perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. This is a CORE course. MTT 100 is a suitable substitute for MTT 147/148.PREREQUISITE: As required by college.

# MTT148 – Introduction to Machine Shop I Lab - (3 cr. hrs.)

This course provides practical application of the concepts and principles of machining operations learned in MTT 147. Topics include machine shop safety, measuring tools, lathes, saws, milling machines, bench grinders, and layout instruments. Upon completion, students will be able to perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. This is a CORE course. MTT 100 is a suitable substitute for MTT 147/148. This course is aligned with NIMS certification standards.

#### MTT149 – Introduction to Machine Shop II – (3 cr. hrs.)

This course provides additional instruction and practice in the use of measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform intermediate level procedures of precision grinding, measuring, layout, drilling, sawing, turning, and milling. This is a CORE course and is aligned with NIMS certification standards. MTT 149/150 are suitable substitutes for MTT 103.

## MTT150 - Introduction to Machine Shop II Lab - (3 cr. hrs.)

This course provides additional instruction and practice in the use of measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection of work holding devices, speeds, feeds, cutting tools and coolants. Upon completion, students should be able to perform intermediate level procedures of precision grinding, measuring, layout,

drilling, sawing, turning, and milling. This is a CORE course and is aligned with NIMS certification standards. MTT 149/150 are suitable substitutes for MTT 103.

## MTT219 – Computer Numerical Control Graphics: Turning - (3 cr. hrs.)

This course covers techniques involved in writing a program for a multi-axis computerized numeric control (CNC) turning machine using computer assisted manufacturing (CAM) software. In addition, CNC turning machine setup, programming, and operation are detailed. Upon completion, the student should be able to set up, program, and operate a 3-axis CNC turning machine to produce a 2½-axis part using CAM software. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

## MTT220 – Computer Numerical Control Graphics: Milling - (3 cr. hrs.)

This course covers techniques involved in writing a program for a multi-axis computerized numeric control (CNC) milling machine using computer assisted manufacturing (CAM) software. In addition, CNC milling machine setup, programming, and operation are detailed. Upon completion, the student should be able to set up, program, and operate a 3-axis CNC milling machine to produce a 2½-axis part using CAM software. This course is aligned with NIMS certification standards. PREREQUISITE: As required by program.

# Manufacturing Skills Standards Council (MSSC) Certification

- WKO131 MSSC Safety Course (3 cr. hrs.)
- This course is designed to provide students with knowledge and skills related to safety in a manufacturing environment. Topics covered include
  - Work in a safe an productive manufacturing workplace
  - Perform safety and environmental inspections
  - Perform emergency drills and participate in emergency teams
  - Identify unsafe conditions and take corrective action
  - Provide safety orientation for all employees
  - Train personnel to use equipment safely
  - Suggest process and procedures that support safety of work environment
  - Fulfill safety and health requirements for maintenance, installation and repair
  - Monitor safe equipment and operator performance
  - Utilize effective, safety-enhancing workplace practices
- Students completing this course will receive an MSSC certificate in Safety.

WKO132 – MSSC Quality Practice and Measurement Course - (3 cr. hrs.)

- This course is designed to provide students with knowledge and skills related to quality practices and measurement in a manufacturing environment. Topics covered include
  - Participate in periodic internal quality audit activities
  - Check calibration of gages and other data collection equipment
  - Suggest continuous improvements
  - Inspect materials and product/process at all stages to ensure they meet specifications
  - Document the results of quality problems
  - Communicate quality problems
  - Take corrective actions to restore or maintain quality
  - Record process outcomes and trends
  - Identify fundamentals of blueprint reading

- Use common measurement systems and precision measurement tools
- This course is equivalent to ADM 106.

Students completing this course will receive an MSSC certificate in quality practices and measurement.

- WKO133 MSSC Manufacturing Processes and Production Course (3 cr. hrs.)
- This course is designed to provide students with knowledge and skills related to manufacturing processes and production in a manufacturing environment. Topics covered include
  - Identify customer needs
  - Determine resources available for the production process
  - Set up equipment for the production process
  - Set team production goals
  - Make job assignments
  - Coordinate work flow with team members and other work groups
  - Communicate production and material requirements and product specifications
  - Preform and monitor the process to make the product
  - Document product and process compliance with customer requirements
  - Prepare final product for shipping or distribution

Students completing this course will receive an MSSC certificate in manufacturing processes and production.

- WKO134 MSSC Maintenance Awareness Course (3 cr. hrs.)
- This course is designed to provide students with knowledge and skills related to maintenance awareness in a manufacturing environment. Topics covered include
  - Prepare preventative maintenance and routine repair
  - Monitor indicators to ensure correct operations
  - Perform all housekeeping to maintain production schedule
  - Recognize potential maintenance issues with basic production systems, including knowledge of when to inform maintenance personnel about problems with:
    - pneumatic systems
    - hydraulic systems;
    - machine automation systems
    - lubrication systems
    - bearings and couplings

Students completing this course will receive an MSSC certificate in maintenance awareness.

Students completing courses WKO 131, 132, 133 and 134 will receive the Certified Production Technician credential.

# **Mechatronics**

# INT101 – DC Fundamentals- (3 cr. hrs.)

This course provides an in depth study of direct current (DC) electronic theory. Topics include atomic theory, magnetism, properties of conductors and insulators, and characteristics of series, parallel, and series-parallel circuits. Inductors and capacitors are introduced and their effects on DC circuits are examined. Students are prepared to analyze complex DC circuits, solve for unknown circuit variables and to use basic electronic test equipment. This course also provides hands on laboratory exercises to analyze, construct, test, and troubleshoot DC circuits. Emphasis is placed on the use of scientific

electrical systems;

calculator and the operation of common test equipment used to analyze and troubleshoot DC and to prove the theories taught during classroom instruction. PREREQUISITE: As required by program.

## INT103 – AC Fundamentals - (3 cr. hrs.)

This course provides an in depth study of alternating current (AC) electronic theory. Students are prepared to analyze complex AC circuit configurations with resistors, capacitors, and inductors in series and parallel combinations. Topics include electrical safety and lockout procedures, specific AC theory functions such as RLC, impedance, phase relationships, and power factor. Students will be able to define terms, identify waveforms, solve complex mathematical problems, construct circuits, explain circuit characteristics, identify components, and make accurate circuit measurements using appropriate measurement instruments. They should also be able to perform fundamental tasks associated with troubleshooting, repairing, and maintaining industrial AC systems. This is a CORE course. PREREQUISITE: As required by program.

#### INT118- Fundamentals of Industrial Hydraulics and Pneumatics - (3 cr. hrs.)

This course includes the fundamental concepts and theories for the safe operation of hydraulic and pneumatic systems used with industrial production equipment. Topics include the physical concepts, theories, laws, air flow characteristics, actuators, valves, accumulators, symbols, circuitry, filters, servicing safety, and preventive maintenance and the application of these concepts to perform work. Upon completion, students should be able to service and perform preventive maintenance functions on hydraulic and pneumatic systems. This is a CORE course. PREREQUISITE: As required by program.

#### INT126 - Preventive Maintenance - (3 cr. hrs.)

This course focuses on the concepts and applications of preventive maintenance. Topics include the introduction of alignment equipment, job safety, tool safety, preventive maintenance concepts, procedures, tasks, and predictive maintenance concepts. Upon course completion, students will demonstrate the ability to apply proper preventive maintenance and explain predictive maintenance concepts. PREREQUISITE: As required by program.

#### INT158 - Industrial Wiring I - (3 cr. hrs.)

This course focuses on principles and applications of commercial and industrial wiring. Topics include, electrical safety practices, an overview of National Electric Code requirements as applied to commercial and industrial wiring, conduit bending, circuit design, pulling cables, transformers, switch gear, and generation principles.

## INT206 - Industrial Motors I - (3 cr. hrs.)

This course focuses on basic information regarding industrial electrical motors. Upon completion students will be able to troubleshoot, remove, replace, and perform routine maintenance on various types of motors. PREREQUISITE: As required by program.

## INT212 - Industrial Motor Control II - (3 cr. hrs.)

This course is a continuation of INT 113 focusing on additional theory and practice regarding industrial motor control schematics and wiring. Included are multispeed and softstart wiring techniques for industrial motors and synchronous motor control. The student will also be exposed to the theory, setup and programming of variable speed drives. Upon completion students will be able to remove, replace, and wire different types of resistors, reactors and transformers similar to those used in the control of industrial polyphase motors and large DC motors.

## INT253 - Industrial Robotics - (3 cr. hrs.)

This course provides instruction in concepts and theories for the operation of robotic servo motors and power systems used with industrial robotic equipment. Emphasis is on the application of the computer to control power systems to perform work. Student competencies include understanding of the functions of hydraulic, pneumatic, and electrical power system components, ability to read and interpret circuitry for proper troubleshooting and ability to perform preventative maintenance. PREREQUISITE: As required by program.

## INT254 – Robot Maintenance and Troubleshooting- (3 cr. hrs.)

This course introduces the principle concepts of the troubleshooting and maintenance of robots. Topics include the recognition and description of major robot components. Students will learn to diagnose robot mechanical problems to the component level, replace mechanical components and perform adjustments, troubleshooting class 1, 2, and 3 faults, to manipulate I/O for the robot, and periodic and preventive maintenance. Students will learn how to safely power up robots for complete shutdown and how to manipulate robots using the teach pendant. Upon completion students will be able to describe the various robot classifications, characteristics, explain system operations of simple robots, and maintain robotic systems. PREREQUISITE: As required by program.

# INT284 – Advanced Programmable Logic Controllers - (3 cr. hrs.)

This course includes the advanced principals of PLC's including hardware, programming, and troubleshooting. Emphasis is placed on developing advanced working programs, and troubleshooting hardware and software communication problems. Upon completion, students should be able to demonstrate their ability in developing programs and troubleshooting the system. PREREQUISITE: As required by program.

## **INT288 – Applied Principles of Programmable Controllers - (3 cr. hrs.)**

This course provides a comprehensive study in the theory and application of specific models of programmable logic controllers. Topics include hardware configuration, memory and addressing detail function of software, instruction types, system troubleshooting, and simple programming techniques. PREREQUISITE: As required by program.

#### Welding (WDT)

# WDT108 - SMAW Fillet/OFC - (3 cr. hrs.)

This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of oxy-fuel cutting. PREREQUISITE: Approval of instructor.

#### WDT109 - SMAW Fillet/PAC/CAC - (3 cr. hrs.)

This course provides the student with instruction on safety practices and terminology in the Shielded Metal Arc Welding (SMAW) process. Emphasis is placed on safety, welding terminology, equipment identification, set-up and operation, and related information in the SMAW process. This course also covers the rules of basic safety and identification of shop equipment and provides the student with the skills and knowledge necessary for the safe operation of carbon arc cutting and plasma arc cutting. PREREQUISITE: Approval of Instructor.

#### WDT110 - Industrial Blueprint Reading - (3 cr. hrs.)

This course provides students with the understanding and fundamentals of industrial blueprint reading. Emphasis is placed on reading and interpreting lines, views, dimensions, weld joint configurations and weld symbols. Upon completion students should be able to interpret welding symbols and blueprints as they apply to welding and fabrication. PREREQUISITE: As required by program.

# WDT115 - GTAW Carbon Pipe - (3 cr. hrs.)

This course is designed to provide the student with the practices and procedures of welding carbon pipe using the gas tungsten arc weld (GTAW) process. Emphasis is placed on pipe positions, filler metal selection, purging gasses, joint geometry joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, filler metals, purging gas, proper joint geometry, joint preparation and fit-up to the applicable code. PREREQUISITE: As required by program.

## WDT119 - Gas Metal Arc Flux Cored Arc Welding - (3 cr. hrs.)

This course introduces the student to the gas metal arc and flux-cored arc welding process. Emphasis is placed on safe operating practices, handling and storage of compressed gasses, process principles, component identification, various welding techniques and base and filler metal identification. PREREQUISITE: As required by program.

#### WDT 120 - SMAW (Shielded Metal Arc Welding) Groove - (3 cr. hrs.)

This course provides the student with instruction on joint design, joint preparation, and fit-up of groove welds in accordance with applicable welding codes. Emphasis is placed on safe operation, joint design, joint preparation, and fit-up. Upon completion, students should be able to identify the proper joint design, joint preparation and fit-up of groove welds in accordance with applicable welding codes. PREREQUISITE: As required by program.

# WDT124 - Gas Metal Arc/Flux Cored Arc Welding Lab – (3cr. hrs.)

This course provides instruction and demonstration using the various transfer methods and techniques to gas metal arc and flux cored arc welds. Topics included are safety, equipment set-up, joint design and preparation, and gases.

## WDT125 - Shielded Metal ARC Welding Groove Lab - (3 cr. hrs.)

This course provides instruction and demonstrations in the shielded metal arc welding process on carbon steel plate with various size F3 and F4 group electrodes in all positions. Emphasis is placed on welding groove joints and using various F3 and F4 group electrodes in all positions. Upon completion, the student should be able to make visually acceptable groove weld joints in accordance with applicable welding codes. PREREQUISITE: As required by program.

## WDT155 – GTAW Carbon Pipe Lab - (3 cr. hrs.)

This course is designed to provide the student with the skills in welding carbon steel pipe with gas tungsten arc welding techniques in various pipe weld positions. Upon completion, students should be able to perform gas tungsten arc welding on carbon steel pipe with the prescribed filler metals in various positions in accordance with the applicable code. PREREQUISITE: WDT115 and/or as required by program.

#### WDT157 - Consumable Welding Processes - (3 cr. hrs.)

This course provides instruction and demonstration with the consumable welding processes to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe

operating practices, equipment identification, equipment set-up, correct selection of electrode, current/polarity, shielding gas and base metals. PREQUISITE: As required by program.

## WDT158 – Consumable Welding Processes Lab - (3 cr. hrs.)

This course provides instruction and demonstration with the consumable welding processes to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe operating practices, equipment identification, equipment set-up, correct selection of electrode, current/polarity, shielding gas and base metals. Upon completion, the student should be able to produce groove and fillet welds using consumable welding processes according to AWS Codes and standards. PREREQUISITE: WDT157

## WDT166 - Flux Core Arc Welding - (3 cr. hrs.)

This course provides instruction and demonstration with the flux core arc welding process to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe operating practices, equipment identification, equipment set-up, correct selection of filler metals, current/polarity, shielding gas and base metals. Upon completion, the student should be able to produce groove and fillet welds using the FCAW welding process, according to AWS Codes and Standards. PREQUISITE: As required by program.

#### WDT167 - Flux Core Arc Welding Lab - (3 cr. hrs.)

This course provides instruction and demonstration with the flux core arc welding process to produce groove and fillet welds in all positions, according to applicable welding codes. Topics include safe operating practices, equipment identification, equipment set-up, correct selection of filler metals, current/polarity, shielding gas and base metals. Upon completion, the student should be able to produce groove and fillet welds using the FCAW welding process, according to AWS Codes and Standards. PREQUISITE: As required by program.

## WDT217 – SMAW Carbon Pipe - (3 cr. hrs.)

This course introduces the student to the practices and procedures of welding carbon steel pipe using the shielded metal arc weld (SMAW) process. Emphasis is placed on pipe positions, electrode selection, joint geometry, joint preparation and fit-up. Upon completion, students should be able to identify pipe positions, electrodes, proper joint geometry, joint preparation, and fit-up in accordance with applicable codes. PREREQUISITE: As required by program.

#### WDT 218 – Certification - (3 cr. hrs.)

This course is designed to provide the student with the knowledge needed to perform welds using the prescribed welding process. Emphasis is placed on the welding test joints in accordance with the prescribed welding code. Upon completion, students should be able to pass an industry welding test in accordance with various applicable welding code requirements. PREREQUISITE: As required by program.

## WDT219 – Welding Inspection and Testing - (3 cr. hrs.)

This course provides the student with inspection skills and knowledge necessary to evaluate welded joints and apply quality control measures as needed. Emphasis is placed on interpreting welding codes, welding procedures, and visual inspection methods. Upon completion, students should be able to visually identify visual acceptable weldments as prescribed by the code or welding specification report. PREREQUISITE: As required by program.

#### WDT228 - Gas Tungsten Arc Welding - (3 cr. hrs.)

This course provides student with knowledge needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and set-up, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes. PREREQUISITE: As required by program.

#### WDT257 – SMAW Carbon Pipe Lab - (3 cr. hrs.)

This course is designed to provide the student with the skills in welding carbon steel pipe with shielded metal arc welding techniques in various pipe welding positions. Upon completion, students should be able to perform shielded metal arc welding on carbon steel pipe with the prescribed electrodes in various positions in accordance with the applicable codes. PREREQUISITE: As required by program.

## WDT258 - Certification Lab - (3 cr. hrs.)

This course is designed to provide the student with the skills needed to perform welds using the prescribed welding process. Emphasis is placed on the welding test joints in accordance with the prescribed welding code. Upon completion, students should be able to pass and industry standard welding test in accordance with various welding code requirements. PREREQUISITE: Approval of Instructor.

#### WDT268 - Gas Tungsten ARC Lab - (3 cr. hrs.)

This course provides student with skills needed to perform gas tungsten arc welds using ferrous and/or non-ferrous metals, according to applicable welding codes. Topics include safe operating practices, equipment identification and set-up, correct selection of tungsten type, polarity, shielding gas and filler metals. Upon completion, a student should be able to identify safe operating practices, equipment identification and setup, correct selection of tungsten type, polarity, shielding gas, filler metals, and various welds on ferrous and/or non-ferrous metals, using the gas tungsten arc welding process according to applicable welding codes. PREREQUISITE: Approval of Instructor.

#### WDT269 – Boiler Tube Lab - (3 cr. hrs.)

This course is designed to provide the student with the skills in welding boiler tubes using the gas tungsten arc and shielded metal arc welding process using filler metals in the F6 and F4 groups to applicable code. Emphasis is placed on welding boiler tubes using the gas tungsten arc and shielded metal arc welding process in the 2G and 6G positions in accordance with the applicable code. Upon completion, students should be able to perform gas tungsten arc and shielded metal arc welding on boiler tubes with the prescribed filler metals in the 2G and 6G positions to the applicable code.

#### WDT280 – Special Topics - (3 cr. hrs.)

This course provides specialized instruction in various areas related to the welding industry. Emphasis is placed on meeting students' needs. PREREQUISITE: As required by program.

#### WDT281 - Special Topics in Welding Technology - (3 cr. hrs.)

This course provides specialized instruction in various areas related to the welding industry. Emphasis is placed on meeting students' needs. PREREQUISITE: As required by program.

# **Applied Services Technology**

# **Automotive Services (ASE)**

## ASE101 – Fundamentals of Automotive Technology - (3 cr. hrs.)

This course provides basic instruction in Fundamentals of Automotive Technology. This is a CORE course. PREREQUISITE: As required by college

## ASE112 - Electrical Fundamentals - (3 cr. hrs.)

This course introduces the principles and laws of electricity. Emphasis is placed on wiring diagrams, test equipment, and identifying series, parallel and series-parallel circuits. Upon completion, students should be able to calculate, build, and measure circuits. This is a CORE course. PREREQUISITE: As required by college

#### ASE121 - Braking Systems -

This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of brakes. ABR 223 Automotive Mechanical Components is a suitable substitute for this course. This is a CORE course. PREREQUISITE: As required by college

#### ASE122 - Steering and Suspension - (3 cr. hrs.)

This course provides instruction in automotive technology or auto mechanics. Emphasis is placed on the practical application of steering and suspension. This is a CORE course. PREREQUISITE: As required by college

#### ASE124 - Automotive Engines - (3 cr. hrs.)

This course provides instruction on the operation, design, and superficial repair of automotive engines. Emphasis is placed on understanding the four stroke cycle, intake and exhaust manifolds and related parts, engine mechanical timing components, engine cooling and lubrication system principles and repairs, and basic fuel and ignition operation. This is a CORE course. PREREQUISITE: As required by college

## ASE130 - Drive Train and Axles - (3cr. hrs.)

This course provides basic instruction in automotive drive trains and axles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability. This is a CORE course. PREREQUISITE: As required by college

## ASE133 - Motor Vehicle Air Conditioning – (3cr. hrs.)

This course provides basic instruction in theory, operation, and repair of automotive heating and air conditioning systems. Emphasis is placed on the understanding and repair of vehicle air conditioning and heating systems, including but not limited to air management, electrical and vacuum controls, refrigerant recovery, and component replacement. PREREQUISITE: As required by college

#### ASE162 - Electrical and Electronic Systems - (3 cr. hrs.)

This is an intermediate course in automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of battery, starting, charging, and lighting systems, subsystems, and components. This is a CORE course. PREREQUISITE: As required by college

#### ASE212 Advanced Electrical and Electronic Systems – (3cr. hrs.)

This course provides instruction in advanced automotive electrical and electronic systems. Emphasis is placed on troubleshooting and repair of advanced electrical and electronic systems, subsystems, and components. PREREQUISITE: As required by college

## ASE 220 - Advanced Automotive Engines – (3 cr. hrs.)

This course provides in depth instruction concerning internal engine diagnosis, overhaul and repair, including but not necessarily limited to the replacement of timing chains, belts, and gears, as well as the replacement or reconditioning of valve train components as well as replacement of pistons, connecting rods, piston rings, bearings, lubrication system components, gaskets, and oil seals. PREREQUISITE: As required by college

#### ASE224 – Manual Transmission and Transaxle (3 cr. hrs.)

This course covers basic instruction in manual transmissions and transaxles. Emphasis is placed on the understanding and application of basic internal and external operation relating to proper operation and driveability. PREREQUISITE: As required by college

## ASE230 – Automatic Transmission and Transaxle - (3 cr. hrs.)

This course provides basic instruction in automatic transmissions and transaxles. Emphasis is placed on the comprehension of principles and power flow of automatic transmissions and repairing or replacing internal and external components. PREREQUISITE: As required by college.

## ASE245 – Engine Performance and Diagnostics Combined – (3 cr. hrs.)

This course provides basic instruction in engine performance with emphasis on fuel and ignition systems relating to engine operation. This course also provides advanced instruction in engine performance. Emphasis is placed on engine management and computer controls of ignition, fuel, and emissions systems relating to engine performance and driveability. This is course can be a substituted for CORE courses ASE239 and ASE244

#### ASE246 – Automotive Emissions - (3 cr. hrs.)

This is an introductory course in automotive emission systems. Emphasis is placed on troubleshooting and repair of systems, subsystems, and components. PREREQUISITE: As required by college.

#### ASE263 - Hybrid & Electric Vehicles - (3 cr. hrs.)

This course is designed to measure a technician's knowledge of the skills needed to diagnose both high and low voltage electrical/electronic problems, as well as other supporting system problems on hybrid/electric vehicles. This course prepares students for the ASE Light Duty Hybrid/Electric Vehicle Specialist (LE) certification.

## ASE281 – Special Topics – (3 cr. hrs.)

These courses are designed to allow the student to specialize in a particular area of study with minimum instruction in automotive mechanics application and with evaluation at the instructor's discretion. Emphasis is placed on a topic/project that the student is interested in and may include any automotive or related area in automotive mechanics. Upon completion, the student should be able to work with minimum instruction and execute the necessary techniques to finish a live work project of their choice.

#### ASE290 - CO-OP - (3 cr. hrs.)

These courses constitute a series wherein the student works on a part-time basis in a job directly related to automotive technology. In these courses the employer evaluates the student's productivity and the

student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

# **Cosmetology Instructor Training (CIT)**

#### CIT211 – Teaching and Curriculum Development - (3 cr. hrs.)

This course focuses on principles of teaching, teaching maturity, professional conduct, and the development of cosmetology curriculum. Emphasis is placed on teacher roles, teaching styles, teacher challenges, aspects of curriculum development, and designing individual courses. Upon completion, the student should be able to describe the role of teacher, identify means of motivating students, develop a course outline, and develop lesson plans. PREREQUISITE: Licensed cosmetologist (1 years' experience). COREQUISITE: CIT212

# CIT212 – Teacher Mentorship - (3 cr. hrs.)

This course is designed to provide the practice through working with a cosmetology instructor in a mentoring relationship. Emphasis is placed on communication, student assessment, and assisting students in the lab. Upon completion, the student should be able to communicate with students, develop a course of study, and apply appropriate teaching methods. PREREQUISITE: Licensed cosmetologist (1 years' experience). COREQUISITE: CIT211

## CIT213 – Cosmetology Instructor Co-op - (3 cr. hrs.)

The course provides students with additional opportunities to observe instructors and develop teaching materials and skills. PREREQUISITE: Licensed managing cosmetologist (1 years' experience). COREQUISITE: CIT214

#### CIT214 – Lesson Plan Methods and Development (3 cr. hrs.)

During this course students have the opportunity to further apply knowledge of lesson planning and lesson delivery by using lesson plans they have developed from previous courses or this course. Emphasis is placed on the use of lesson plans in various classroom and laboratory settings. Upon completion, students will be able to teach a variety of cosmetology classes using various techniques. This course serves as a suitable substitute for CIT 221. If used as a suitable substitute, this course becomes a core course. PREREQUISITE: Licensed managing cosmetologist (1 years' experience). COREQUISITE: CIT213

#### CIT222 – Audio Visual Materials and Methods - (3 cr. hrs.)

This course focuses on visual and audio aids and materials. Emphasis is placed on the use and characteristics of instructional aids. Upon completion, students should be able to prepare teaching aids and determine their most effective use. PREREQUISITE: Licensed managing cosmetologist (1 years' experience). COREQUISITE: CIT223

## CIT223 – Audio Visual Materials and Methods Applications (3 cr. hrs.)

This course is designed to provide practice in preparing and using visual and audio aids and materials. Emphasis is placed on the preparation and use of different categories of instructional aids. Upon completion, the student should be able to prepare and effectively present different types of aids for use with a four step lesson plan. PREREQUISITE: Licensed managing cosmetologist (1 years' experience). COREQUISITE: CIT222

# Culinary Arts (CUA) / Hospitality Services Management (HSM)

## CUA101 - Orientation to the Hospitality Profession - (3 cr. hrs.)

This course introduces various facets and opportunities within the hospitality profession. The intent is for students to gain a broad base of information relative to the hospitality industry. Emphasis is placed on having students comprehend their role as a hospitality industry professional. Topics include an overview of the hospitality profession, knowledge and skills necessary for successful employment, the impact of the hospitality profession on society, issues that impact on various segments of the hospitality profession, and emerging trends. PREREQUISITE: As required by college.

## CUA102 - Catering - (3 cr. hrs.)

This course includes the theory and practice of operating a catering business. Topics include food production and management related to catering and other special services. Upon completion, the student will have a working knowledge of the principles involved in operating a catering business. PREREQUISITE: As required by college.

# CUA111 - Foundations of Nutrition - (3 cr. hrs.)

This course focuses on nutrition and meal planning in relation to the food preparation industry. Topics include the science of food and nutrition, essential nutrients and their relation to the growth, maintenance and functioning of the body, nutritional requirements of different age levels and cultural influences on food selection. Upon completion of this course, students will be able to apply the basic principles to meal planning. PREREQUISITE: As required by college.

**CUA113 – Table Service - (2 cr. hrs.)** This course is a guide for the modern wait staff. Topics include laying the cover, taking the order, surveying of different styles of table service from the casual to the very formal, tabulating and presenting the bill, and busing and turning the table. Upon completion of this course, students should be able to demonstrate proficiency in the art of table service. PREREQUISITE: As required by college.

## CUA115 – Advanced Food Preparation (3 cr. hrs.)

In this course, students apply food preparation and meal management skills in all areas of food service. Emphasis is placed on management and technical skills needed to operate a restaurant. Upon completion, students will develop advanced skills in food preparation and meal management. PREREQUISITE: As required by college

## CUA116 - Sanitation and Safety – (3 cr. hrs.)

This course introduces students to the principles of sanitation and safety in foodservice operations. Specific topics include microbial contamination, food allergens, food borne illnesses, personal hygiene, basic first aid, food management systems, and proper food selection, receiving, storage, and preparation. Special emphasis will be placed on the creation of a HAACP for the safe movement of food through the food service operation and the development of a plan for dealing with customer allergies. At the conclusion of this course students will be prepared to test for the ServSafe® Manager certification and certification as an allergen specialist. This course is foundational for all culinary classes. This is a CORE class.

## **CUA123 - Applied Quantity Cooking- (3 cr. hrs.)**

This course builds on the basic principles and methods of quantity cooking taught in CUA 122 – Fundamentals of Quantity Cooking. Topics include weights and measures, costing and converting recipes, health department compliance issues, production forms, organization and record keeping,

development of menus and the time management skills necessary to successfully run a food service organization. At the conclusion of this course, students will be well versed in the application of quantity food techniques to the end of customer satisfaction.

#### **CUA125 – Food Preparation - (5 cr. hrs.)**

In this course students acquire fundamental knowledge and skills in preparing a variety of basic foods. Specific topics include safety, the history of food service, professional standards of conduct and ethics, credentialing, the kitchen brigade, tools, and techniques for preparing various types of food items. At the conclusion of this course students will demonstrate basic food preparation skills. PREREQUISITE: As required by college

**CUA141 - Food Production for Special Operations (3 cr. hrs.)** This course covers menu planning principles, food preparation, food procurement, and food management skills needed to provide appealing and profitable food service in special operations. Topics include fast food cookery, convenience-store food service, supermarkets, delicatessens, and take-out venue. Upon completion, students should be able to plan, organize, and prepare food service items for special operations. PREREQUISITE: As required by college

#### CUA165 - Cake Decorating and Design - (cr. hrs. 3)

This course focuses on preparing cake, tortes, individual Viennese cakes, and piping skills. Emphasis is placed on piping different mediums such as: chocolate, buttercream, royal icing; assembling cakes with different batters or dough such as: Genoese, Japonaise, Bavarian, mousse, and marzipan. Upon completion student should be able to plan, execute and evaluate whole cakes, desert platters, and a show piece. PREREQUISITE: As required by college

#### CUA173 – Culinary Arts Apprenticeship - (3 cr. hrs.)

This course provides the student with hands-on experience in a selected (approved) commercial food operation establishment under direct supervision. This course may be repeated for credit. PREREQUISITE: As required by college.

## CUA181 - Special Topics in Commercial Food Services - (2 cr. hrs.)

These courses provide specialized instruction in various areas related to the culinary arts industry. Emphasis is placed on meeting students' needs. This course may be repeated for credit. PREREQUISITE: As required by college.

#### CUA182 – Special Topics in Commercial Food Services - (3 cr. hrs.)

These courses provide specialized instruction in various areas related to the culinary arts industry. Emphasis is placed on meeting students' needs. This course may be repeated for credit. PREREQUISITE: As required by college.

## CUA201 – Meat Preparation and Processing - (3 cr. hrs.)

This course focuses on meat preparation and processing. Students will be responsible for the preparing of meats including beef, pork, poultry, fish, and seafood so they can be used for final preparations in the other stations of the kitchens. Upon completion, students will be able to demonstrate an understanding of the principles in meat preparation and processing. PREREQUISITE: As required by college.

## **CUA202** – Aromatic and Flavoring Combinations - (3 cr. hrs.)

Students will learn the difference between spices and herbs. Students will further learn the categories of herbs and spices which enable them to create their finest dishes. Students will learn the world

renowned spice blends, and dry seasonings rubs. A strong emphasis will be placed on the huge variety of chili peppers. PREREQUISITE: As required by college.

#### CUA203 – Stocks and Sauces - (3 cr. hrs.)

This course challenges the student to the greatest tests of a chef's skills. Whether they are classic or contemporary good sauces demand the highest technical expertise. Students learn why particular sauces will or will not go with particular dishes. The student will focus on brown and white stocks; consommé's, fumets and essences; glazes and roux's. The student will further develop mother sauces and compound sauces. PREREQUISITE: As required by college.

## **CUA204** – Foundations of Banking - (3 cr. hrs.)

This course covers basic ingredients, weights and measures, baking terminology, and formula calculations. Topics include yeast-raised products, quick breads, pastry dough, various cakes and cookies, and appropriate filling and finishing techniques. Upon completion, students should be able to prepare and evaluate baked products. PREREQUISITE: As required by college.

## **CUA205 – Introduction to Garde Manger - (3 cr. hrs.)**

This course is designed to develop skills in the art of Garde Manger. Topics include pates, terrines, galantines, ice and tallow carving, chaud-froid/aspic work, charcuterie, smoking, canapes, hor d'oeuvres, and related food items. Upon completion, students should be able to design, set up, and evaluate a catering function to include a classical cold buffet with appropriate show pieces. PREREQUISITE: CUA110 and 111.

## CUA208 - Advanced Baking - (3 cr. hrs.)

This course is a continuation of CUA 204. Topics include specialty breads, pastillage, marzipan, chocolate, pulled-sugar, confections, classic desserts, pastries, and cake decorating. Upon completion, students should be able to demonstrate pastry preparation and plating, cake decorating, and show-piece production skills. PREREQUISITE: As required by college.

**CUA210 – Beverage Management - (2 cr. hrs.)** This is a survey course of basic alcoholic and non-alcoholic beverages as they relate to food service. Topics include wine and food appreciation and laws related to alcohol services. Upon completion, students should be able to determine what beverages compliment various cuisines and particular tastes. PREREQUISITE: As required by college.

## **CUA213 – Food Purchasing and Cost Control - (3 cr. hrs.)**

Emphasis is placed on procurement, yield tests, inventory control, specification, planning, forecasting, market trends, terminology, cost controls, pricing, and food service ethics. Upon completion, students should be able to apply effective purchasing techniques based on the end-use of the product. PREREQUISITE: As required by college.

#### **CUA214 – International Cuisine - (3 cr. hrs.)**

This course focuses on various cuisines from countries and regions throughout the world. Students will prepare complete menus reflective of the culture and goods of these countries and regions with emphasis on ingredients and authentic preparation methods. Upon completion, students should be able to research and execute international menus. PREREQUISITE: CUA111 and 112.

#### **CUA215** – Regional Cuisines of the Americas - (3 cr. hrs.)

This course provides a brief history of the ancient American foods that enhanced the world's cuisines. Emphasis is placed on how these foods influenced the "American Cuisines" of today. Upon completion

of this course, students will be able to research and execute regional American cuisines. PREREQUISITE: As required by college

## CUA216 - Plated Dessert Design - (3 cr. hrs.)

This course focuses on plated dessert designs. Emphasis will be placed on complex presentations with two or more main items using decorative garnishes. Upon completion, students should be able to plate and serve attractive presentations of desserts with appropriate sauces and garnishes. PREREQUISITE: As required by college

#### CUA222 - Dietary Management - (3 cr. hrs.)

This course includes the basic methods of modifying diets by changing consistency, energy value, or nutrient content to meet a specific need. Topics include special diets such as liquid, soft, regular, and light. Upon completion, the student will be able to demonstrate an understanding of the principles of dietary management in food preparation and service. PREREQUISITE: As required by college

## CUA251 - Menu Design - (3 cr. hrs.)

This course introduces menu design. Topics include development of standardized recipes, layout, nutritional concerns, product utilization, demographics, and customer needs. Upon completion, students should be able to write, lay out, and produce effective menus for a variety of hospitality settings. PREREQUISITE: As required by college.

#### CUA262 - Restaurant Management and Supervision - (3 cr. hrs.)

This course introduces restaurant and food service information systems. Topics include planning, cost controls, forecasting, inventory control, recipe control, production control, and nutritional analysis. Upon completion, students should be able to demonstrate competence in utilizing contemporary information application systems in a restaurant setting. PREREQUISITE: As required by college.

**CUA281 – Apprenticeship Qualifying Dinner (3 cr. hrs.)** In this course, students will demonstrate chef's skills developed during culinary training by practical examination through preparing a gourmet meal for a panel of chef judges. PREREQUISITE: As required by college.

# **Hospitality Services Management (HSM)**

## HSM111 – Orientation to the Hospitality Profession - (3 cr. hrs.)

This course introduces various facets and opportunities within the hospitality profession. The intent is for students to gain a broad base of information relative to the hospitality industry. Emphasis is placed on having students comprehend their role as a hospitality industry professional. Topics include an overview of the hospitality profession, knowledge and skills necessary for successful employment, the impact of the hospitality profession on society, issues that impact on various segments of the hospitality profession, and emerging trends. This is a core course. PREREQUISITE: As required by college.

## HSM112 – Law and the Hospitality Industry - (3 cr. hrs.)

This course focuses on laws that apply to hotels, food-service establishments, and the travel industry. Topics include innkeepers' duties to guests, tenants, licensees and trespassers; concepts of liability and negligence; credit and collection practices; and miscellaneous statutes applicable to the hospitality industry. PREREQUISITE: As required by college

#### HSM122 - Hospital Technology and Computer Applications - (3 cr. hrs.)

This course focuses on laws that apply to hotels, food-service establishments, and the travel industry. Topics include innkeepers' duties to guests, tenants, licensees and trespassers; concepts of liability and negligence; credit and collection practices; and miscellaneous statutes applicable to the hospitality industry. PREREQUISITE: As required by college

# HSM123 – Hospitality Field Experience I - (3 cr. hrs.)

The supervised field experience program puts student's classroom knowledge into practical use. It provides a balance between theory and practice, allowing the student to experience various facets of the industry that are not always available in the classroom. This experience provides the opportunity to clarify career goals, assess strengths and weaknesses, and obtain, develop and practice skills necessary for future success. This experience is also crucial to job placement. Any weaknesses in the program of the student can be identified and corrected to insure better job placement and salaries. PREREQUISITE: As required by college

# HSM133 - Hospitality Field Experience II - (3 cr. hrs.)

This second level of field experience encourages the student to make definite career/employment decisions. While the first level field experience was used to determine a general direction of employment, it is suggested that this field experience should lead to permanent employment in the broad scope of hospitality management. Since it is a supervised placement, our staff would be working closely with the student to provide the final specific training for the chosen hospitality career. PREREQUISITE: As required by college.

#### HSM240 – Housekeeping Administration - (3 cr. hrs.)

This course introduces students to housekeeping functions in the hospitality industry and analyzes the management of the housekeeping department, including staffing, work scheduling, and duties of the executive housekeeper. Emphasis is on the training of housekeepers and assistants including the operations of in-house laundries as well as commercial operation. Upon completion, students will understand the management of housekeeping functions in the hospitality industry. PREREQUISITE: As required by college.

#### HSM250 – Hospitality Marketing - (3 cr. hrs.)

This course is designed to study the principles of marketing and promotion as they related to the hospitality industry. Topics include promotional techniques, advertising, the organization of a lodging operation's sales department and promotion of special events. PREREQUISITE: As required by college.

#### HSM265 – Planning and Development of Tourism - (3 cr. hrs.)

This course explores major concepts in tourism, what makes tourism possible, and how tourism can become an important factor in the development of the economy. Topics covered include introductory principles, study approaches, the importance of tourism, tourism history and careers, elements of tourism supply and demand, planning and development principles, marketing, research, regulation and deregulation, and government agencies affecting development. Upon completion, students will be able to analyze the impact of various facets of the tourism industry. PREREQUISITE: As required by college.

## **Heating and Air Conditioning (ACR)**

#### ACR111 - Principles of Refrigeration - (3 cr. hrs.)

This course emphasizes the fundamental principles for air conditioning and refrigeration. Instruction is provided in the theory and principles of refrigeration and heat transfer, HVAC/R system components,

common, and specialty tools for HVAC/R, and application of the concepts of basic compression refrigeration. Upon completion, students should identify system components and understand their functions, identify and use common and specialty HVAC/R tools, and maintain components of a basic compression refrigeration system. PREREQUISITE: As required by college.

## ACR112 – HVACR Service Procedures - (3 cr. hrs.)

This course covers system performance checks and refrigerant cycle diagnosis. Emphasis is placed on the use of refrigerant recovery/recycle units, industry codes, refrigerant coils and correct methods of charging and recovering refrigerants. Upon completion, students should be able to properly recover/recycle refrigerants and demonstrate safe, correct service procedures which comply with the no-venting laws. PREREQUISITE: As required by college.

#### **ACR113 – Refrigeration Piping Practices - (3 cr. hrs.)**

The course introduces students to the proper installation procedures of refrigerant piping and tubing for the heating, ventilation, air conditioning and refrigeration industry. This course includes various methods of working with and joining tubing. Upon completion, students should comprehend related terminology, and be able to fabricate pipe, tubing, and pipe fittings. PREREQUISITE: As required by college.

#### ACR119 – Fundamentals of Gas Heating Systems - (3 cr. hrs.)

This course provides instruction on general service and installation for common gas furnace system components. Upon completion, students will be able to install and service gas furnaces in a wide range of applications. PREREQUISITE: As required by college.

## ACR120 – Fundamentals of Electrical Heating Systems - (3 cr. hrs.)

This course covers the fundamentals of electric furnace systems. Emphasis is placed on components, general service procedures, and basic installation. Upon completion, students should be able to install and service electric furnaces, heat pumps, and solar and hydronics systems. PREREQUISITE: As required by college.

#### ACR121 – Principles of Electricity for HVACR - (3 cr. hrs.)

This course is designed to provide the student with the basic knowledge of electrical theory and circuitry as it pertains to air conditioning and refrigeration. This course emphasizes safety, definitions, symbols, laws, circuits, and electrical test instruments. Upon completion students should understand and be able to apply the basic principles of HVACR circuits and circuit components. PREREQUISITE: As required by college.

#### ACR122 – HVACR Electrical Circuits - (3 cr. hrs.)

This course introduces the student to electrical circuits and diagrams. Electrical symbols and basic wiring diagrams are constructed in this course. Upon completion, student should understand standard wiring diagrams and symbols and be able to construct various types of electrical circuits. PREREQUISITE: As required by college.

#### ACR123 – HVACR Electrical Components - (3 cr. hrs.)

This course introduces students to electrical components and controls. Emphasis is placed of the operations on motors, relays, contactors, starters, and other HVAC electrical components. Upon completion, students should be able to install electrical components and determine their proper operation. PREREQUISITE: As required by college.

## ACR125 – Fundamentals of Gas and Electrical Heating Systems - (6 cr. hrs.)

This course provides instruction on general service and installation for common gas and electrical heating systems. Emphasis is placed on components, general service procedures, and basic installation. Upon completion, students will be able to install and service gas and electrical heating systems in a wide range of applications. **NOTE:** This course is a suitable substitution for ACR 119 and 120 if those both courses are taken.

## ACR126 - Commercial Heating Systems - (3 cr. hrs.)

This course covers the theory and application of larger heating systems. Emphasis is placed on larger heating systems associated with commercial applications such as gas heaters, boilers, unit heaters, and duct heaters. Upon completion, student should be able to troubleshoot and perform general maintenance on commercial heating systems.

## ACR132 – Residential Air Conditioning - (3 cr. hrs.)

This course introduces students to residential air conditioning systems. Emphasis is placed on the operation, service, and repair of residential air conditioning systems. Upon completion, students will be able to service and repair residential air conditioning systems.

## ACR148 – Heat Pump Systems I - (3 cr. hrs.)

Instruction received in this course centers around the basic theory and application of heat pump systems and components. Upon completion students will be able to install and service heat pumps in a wide variety of applications. PREREQUISITE: As required by college.

#### ACR149 – Heat Pump Systems II - (3 cr. hrs.)

This is a continuation course of the basic theory and application of heat pump systems. Topics include the electrical components of heat pumps and their function. Upon completion student should be able to install and service heat pumps. PREREQUISITE: As required by college.

#### ACR152 – Heat Pump Systems – (6 cr. hrs.)

This course provides instruction on the operation and servicing of heat pump systems. Emphasis is placed on theory and application of refrigerants for heat pump systems and on basic service of components. Students should possess a strong foundation of electrical principles and theory. Upon completion students will be able to install and service heat pumps. NOTE: Information in this course is identical to ACR 148 and 149 and can be an alternative to those courses.

## ACR181 – Special Topics in Air Conditioning and Refrigeration I – (3 cr. hrs.)

This course provides specialized instruction in various areas related to the air conditioning and refrigeration industry.

#### ACR182 - Special Topics in Air Conditioning and Refrigeration II – (3 cr. hrs.)

This course provides students with opportunities to experience hands-on application of specialized instruction in various areas related to the air conditioning and refrigeration industry.

#### ACR192 – HVAC Apprenticeship/Internship - (3 cr. hrs.)

This course is designed to provide basic hands-on experiences in the work place. The student is provided with a training plan developed by the employer and instructor working together to guide the learning experience. Upon course completion, students should be able to work independently and apply related

skills and knowledge. This course involves a minimum of 15 work hours per week. PREREQUISITE: As required by college.

#### ACR195 - CO-OP - (3 cr. hrs.)

These courses constitute a series wherein the student works on a part-time basis in a job directly related to Air Conditioning/Refrigeration. In these courses the employer evaluates the student's productivity and the student submits a descriptive report of his work experiences. Upon completion, the student will demonstrate skills learned in an employment setting.

## ACR209 – Commercial Air Conditioning Systems - (3 cr. hrs.)

This course focuses on servicing and maintaining commercial and residential HVAC/R systems. Topics include system component installation and removal and service techniques. Upon completion, the student should be able to troubleshoot and perform general maintenance on commercial and residential HVAC/R systems. PREREQUISITE: As required by college.

## ACR210 - Troubleshooting HVACR Systems - (3 cr. hrs.)

This course provides instruction in the use of various meters and gauges used in the HVACR industry. Emphasis is placed on general service procedures, system diagnosis, and corrective measure, methods of leak detection, and system evacuation, charging and performance checks. Upon completion students should be able to perform basic troubleshooting of HVAC/R. PREREQUISITE: A required by college.

# **Salon Management**

#### BAR108- Introduction to Barbering - (3 cr. hrs.)

This course provides an orientation to professional barber styling. Topics include learning skills, history of barbering, professional image, microbiology, safety, infection control, implements and tools, razor shaving properties and disorders of hair and scalp, and the treatment of hair. This is a core course. CORE PREREQUISITE: As required by program.

# BAR111 - Introduction to Barbering Lab - (3 cr. hrs.)

This course provides practical application of barber-styling fundamentals. Emphasis is placed on safety, infection control, the use and care of implements, treatment of hair, and razor shaving. Upon completion, the student will demonstrate proper infection control, hair care, and use of implements. This is a core course. PREREQUISITE: As required by program.

#### BAR112 – Science of Barbering - (3 cr. hrs.)

This course introduces the student to the basic science of barber-styling. Topics include anatomy/physiology, disorders and treatments of the skin, scalp, and hair, and theory of facial and scalp massage. Upon completion, the student should be familiar with the anatomical structures, as well as disorders and treatments of the skin, scalp, and hair. This is a core course. PREREQUISITE: As required by program.

## BAR113 – Fundamentals of Barbering Applications - (3 cr. hrs.)

This course provides practical application of barber fundamentals learned in earlier courses. Emphasis is placed on safety, facial massage, treatment of hair and scalp proper use and care of implements, shampooing and haircutting, and razor shaving. Upon completion, the student should be able to perform fundamental barbering techniques with limited supervision. This is a core course. PREREQUISITE: As required by program.

## BAR140 - Practicum I - (2 cr. hrs.)

This course provides the student an opportunity to combine knowledge and skill covering all aspects of barber-styling in a professional setting or school lab with minimal supervision. Emphasis is placed on utilization of the knowledge and technical skills covered in the barbering-styling curriculum. Upon completion the student should be able to function in a professional setting with very little assistance. PREREQUISITE: As required by program.

# BAR141 - Practicum II - (2 cr. hrs.)

This course provides the student an additional opportunity to combine knowledge and skill covering all aspects of barber-styling in a professional setting or school lab with minimal supervision. Emphasis is placed on utilization of the knowledge and technical skills covered in the barbering-styling curriculum. Upon completion the student should function in a professional setting as a productive employee or manager. PREREQUISITE: As required by program.

## COS111 - Introduction to Cosmetology - (3 cr. hrs.)

This course is designed to provide students with an overview of the history and development of cosmetology and standards of professional behavior. Students receive basic information regarding principles and practices of infection control, diseases, and disorders. Additionally students receive introductory information regarding hair design. The information presented in this course is enhanced by hands-on application performed in a controlled lab environment. Upon completion, students should be able to apply safety rules and regulations and write procedures for skills identified in this course. This is a core course. COREQUISITE: COS112.

## COS112 - Introduction to Cosmetology Lab - (3 cr. hrs.)

In this course, students are provided the practical experience for sanitation, shampooing, hair shaping, and hairstyling. Emphasis is placed on disinfection, shampooing, hair shaping, and hairstyling for various types of hair for men and women. This course offers opportunities for students to put into practice concepts learned in the theory component from COS111. This is a core course. COREQUISITE: COS111.

## COS113 – Theory of Chemical Services - (3 cr. hrs.)

During this course students learn concepts of theory of chemical services related to the chemical hair texturing. Specific topics include basics of chemistry and electricity, properties of the hair and scalp, and chemical texture services. Safety considerations are emphasized throughout this course. This course is foundational for other courses providing more detailed instruction on these topics. This is a core course. COREQUISITE: COS114.

## COS114 – Chemical Services Lab - (3 cr. hrs.)

During this course students perform various chemical texturing activities. Emphasis is placed on cosmetologist and client safety, chemical use and handling, hair and scalp analysis, and client consulting. This is a core course. COREQUISITE: COS113.

## COS120- Hair Coloring Theory and Lab Combined – (3cr. hrs.)

In this course, students learn and apply the techniques of hair coloring and hair lightening. Emphasis is placed on all color applications and lightening, laws, levels, classifications of color, problem solving, consultation, hair analysis, and patch test. Upon completion, the student will should be able to identify all classifications of hair coloring, the effects of color on the hair, perform procedures for hair coloring and hair lightening. Note: This course is a substitution for the CORE courses COS115 and 116.

#### COS121 - Basic Spa Techniques Theory and Lab Combined - (3cr. hrs.)

This course is the study of cosmetic products, massage, skin care, and hair removal, as well as identifying the structure and function of various systems of the body. It also provides practical applications related to the care of the skin and related structure. Topics include massage techniques, skin analysis, skin structure, disease and disorder, light therapy, facials, facial cosmetics, anatomy, hair removal, nail care, product application and facial make-up. Upon completion, the student should be able to prepare clients, assemble sanitized materials, follow procedures for product application, recognize skin disorders, demonstrate facial massage movement, cosmetic application, and hair removal using safety and sanitary precautions, and nail care. The student will also be able to state procedures for analysis, light therapy, facials, hair removal, and identify the structures, functions, disorders of the skin, and nail care. Note: This course is a substitution for the CORE courses COS117 and 118.

## COS123 - Cosmetology Salon Practices - (3 cr. hrs.)

This course is designed to allow students to practice all phases of cosmetology in a salon setting. Emphasis is placed on professionalism, receptionist duties, hair styling, hair shaping, chemical, and nail and skin services for clients. Upon completion, the student should be able to demonstrate professionalism and the procedures of cosmetology in a salon setting. PREREQUISITE: As required by college.

#### COS134 -ADVANCED ESTHETICS - (3 cr. hrs.)

This course includes an advanced study of anatomy and physiology relating to skin care, cosmetic chemistry, histology of the skin, and massage and facial treatments. Upon completion, the student should be able to discuss the functions of the skin, effects of chemicals on skin, different types of massage and benefits, and key elements of the basic facial treatment.

#### COS143 – Specialty Hair Preparation Techniques - (3 cr. hrs.)

This course focuses on the theory and practice of hair designing. Topics include creating styles using basic and advanced techniques of back combing, up sweeps and braiding. Upon completion, the student should be able to demonstrate the techniques and procedures for hair designing. PREREQUISITE: As required by college.

#### COS144 – Hair Shaping and Design - (3 cr. hrs.)

In this course, students learn the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs. PREREQUISITE: As required by college.

## COS145 - Hair Shaping Lab - (3 cr. hrs.)

This covers the study of the art and techniques of hair shaping. Topics include hair sectioning, correct use of hair shaping implements, and elevations used to create design lines. Upon completion, the student should be able to demonstrate the techniques and procedures for creating hair designs using safety and sanitary precautions. PREREQUISITE: As required by college.

#### COS146 - Hair Additions - (3 cr. hrs.)

This course focuses on the practice of adding artificial hair. Topics include hair extensions, weaving, and braiding. Upon completion, the student should be able to demonstrate the techniques and procedures for attaching human and synthetic hair. PREREQUISITE: As required by college.

#### COS148 - Nail Care Theory - (3 cr. hrs.)

This course focuses on all aspects of nail care. Topics include salon conduct, professional ethics, sanitation, nail structure, manicuring, pedicuring, nail disorders, and anatomy and physiology of the arm and hand. Upon completion, the student should be able to demonstrate professional conduct, recognize nail disorders and diseases, and identify the procedures for sanitation and nail care services.

## COS149 – Nail Art Theory – (3 cr. hrs.)

This course focuses on nail enhancement products and techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to identify the different types of sculptured nails and recognize the different techniques of nail art.

## COS152 – Nail Care Applications – (3 cr. hrs.)

This course provides practice in all aspects of nail care. Topics include salon conduct, professional ethics, bacteriology, sanitation and safety, manicuring and pedicuring. Upon completion, the student should be able to perform nail care procedures.

## COS154 – Nail Art Applications – (3 cr. hrs.)

This course provides practice in advanced nail techniques. Topics include acrylic, gel, fiberglass nails, and nail art. Upon completion, the student should be able to perform the procedures for nail sculpturing and nail art.

## COS163 - Facial Treatments - (3 cr. hrs.)

This course includes all phases of facial treatments in the study of skin care. Topics include treatments for oily, dry, and special skin applications. Upon completion, students will able to apply facial treatments according to skin type. PREREQUISITE: As required by college.

## COS164 - Facial Machine - (3 cr. hrs.)

This is a course designed to provide practical experience using the vapor and facial machine with hydraulic chair. Topics include the uses of electricity and safety practices, machine and apparants, use of the magnifying lamp, and light therapy. Upon completion, the student will be able to demonstrate an understanding of electrical safety and skills in the use of facial machines. PREREQUISITE: As required by college.

#### COS165 – Related Subjects – Estheticians - (3 cr. hrs.)

This course includes subjects related to the methods for removing unwanted hair. This course includes such topics as electrolysis information and definitions, safety methods of permanent hair removal, the practice of removal of superfluous hair, and the use of depilatories. Upon completion of this course, students will be able to apply depilatories and practice all safety precautions. PREREQUISITE: As required by college.

## COS167 – State Board Review - (3 cr. hrs.)

Students are provided a complete review of all procedures and practical skills pertaining to their training in the program. Upon completion, the student should be able to demonstrate the practical skills necessary to complete successfully the required State Board of Cosmetology examination and entry-level employment. PREREQUISITE: COS151

#### COS168 – Bacteriology and Sanitation - (3 cr. hrs.)

In this skin care course, emphasis is placed on the decontamination, infection control and safety practiced in the esthetics facility. Topics covered include demonstration of sanitation, sterilization methods and bacterial prevention. Upon completion, the student will be able to properly sanitize facial implements and identify non-reusable items. PREREQUISITE: As required by college.

## COS169 - Skin Functions - (3 cr. hrs.)

This course introduces skin functions and disorders. Topics include practical application for skin disorder treatments, dermabrasion, and skin refining. Upon completion of this course students will be able to demonstrate procedures for acne, facials and masks for deeper layers and wrinkles. PREREQUISITE: As required by college.

## SAL133 - Salon Management Technology - (3 cr. hrs.)

This course is designed to develop entry-level management skills for the beauty industry. Topics include job-seeking, leader and entrepreneurship development, business principles, business laws, insurance, marketing, and technology issues in the workplace. Upon completion, the student should be able to list job-seeking and management skills and the technology that is available for use in the salon. PREREQUISITE: As required by college.

## Business, Computer Science, and Engineering Technologies

# **Accounting (ACT)**

#### ACT114 – Introduction to Accounting Database Resources - (3 cr. Hrs.)

This course introduces the student to Database resources available for use with the accounting programs. Emphasis is placed on Database and Financial Accounting software packages. Upon completion of this course, the student will be able to use the computerized Database software. PREREQUISITE: None.

#### **ACT115 – Introduction to Accounting Computer Resources - (3 cr. hrs.)**

This course introduces the student to the computer resources available for use with the accounting program. Emphasis is placed on accounting spreadsheets and financial accounting software packages. Upon completion of this course, the student will be able to use the computer resources in the accounting program. NOTE: Students are expected to have a basic knowledge and skills of computers and common software. PREREQUISITE: BUS241.

## ACT195 – Accounting Co-op - (3 cr. hrs.)

This course provides work experience with a college-approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies. PREREQUISITE: Instructor permission.

#### ACT201 – Entrepreneurism - (3 cr. hrs.)

This course covers the important issues and critical steps involved in starting a new business from scratch. Topics covered include developing a business plan, creating a successful marketing strategy, setting up the legal basis for business, raising start-up funds, attracting and managing human resources, managing costs, and developing a custom base. PREREQUISITE: None.

## ACT247 – Advanced Accounting Applications on the Microcomputer - (3 cr. hrs.)

In this course, students use the microcomputer in managerial accounting. Emphasis is on a variety of software programs for managerial accounting applications. Upon completion of this course, the student will be able to use various managerial accounting software programs. PREREQUISITE: ACT246.

## ACT249 – Payroll Accounting - (3 cr. hrs.)

This course focuses on federal, state and local laws affecting payrolls. Emphasis is on payroll accounting procedures and practices, and on payroll tax reports. Upon completion of this course, the student will be able to apply knowledge of federal, state and local laws affecting payrolls. PREREQUISITE: BUS241.

## ACT253 – Individual Income Tax - (3 cr. hrs.)

This course focuses on the fundamentals of the federal income tax laws with primary emphasis on those affecting the individual. Emphasis is on gross income determination, adjustments to income, business expenses, itemized deductions, exemptions, capital gains/losses, depreciation, and tax credits. Upon completion of this course, the student will be able to apply the fundamentals of the federal income tax laws affecting the individual. PREREQUISITE: None.

## **Business (BUS)**

# BUS100 – Introduction to Business - (3 cr. hrs.)

This is a survey course designed to acquaint the student with American business as a dynamic process in a global setting. Topics include the private enterprise system, forms of business ownership, marketing, factors of production, personnel, labor, finance, and taxation. PREREQUISITE: As required by program.

## BUS146 – Personal Finance - (3 cr. hrs.)

This course is a survey of topics to the consumer. Topics include budgeting, financial institutions, basic income tax, credit, consumer protection, insurance, house purchase, retirement planning, estate planning, investing and consumer purchases. PREREQUISITE: None.

## **BUS147 – Introduction to Finance - (3 cr. hrs.)**

This course is a survey of monetary and credit systems. Topics include the role of the Federal Reserve System, source of capital, including forms of long-term corporate financing, and consumer credit in the financial structure of our economy. PREREQUISITE: BUS241.

#### BUS186 – Elements of Supervision - (3 cr. hrs.)

This course is an introduction to the fundamentals of supervision. Topics include the functions of management, responsibilities of the supervisor, management-employee relations, organizational structure, project management, and employee training and rating. PREREQUISITE: None.

#### BUS215 - BUSINESS COMMUNICATION - (3 cr. hrs.)

This course covers written, oral and nonverbal communications. Topics include the application of communication principles to the production of clear, correct, and logically organized faxes, e-mail, memos, letters, resumes, reports, and other business communications. PREREQUISITE: None.

## **BUS241 – Principles of Accounting I - (3 cr. hrs.)**

This course is designed to provide a basic theory of accounting principles and practices used by service and merchandising enterprises. Emphasis is placed on financial accounting, including the accounting cycle, and financial statement preparation analysis. PREREQUISITE: None.

#### BUS242 - Principles of Account II - (3 cr. hrs.)

This course is a continuation of BUS 241. In addition to a study of financial accounting, this course also places emphasis upon managerial accounting, with coverage of corporations, statement analysis introductory cost accounting, and use of information for planning, control, and decision making. PREQUISITE: BUS241.

## **BUS246 - Computerized Accounting – (3cr. hrs.)**

This course utilizes the microcomputer in a study of accounting principles and practices. Emphasis is on the preparation and analysis of financial statements, measuring business activity, and making rational business decisions.

#### **BUS248 – Managerial Accounting - (3 cr. hrs.)**

This course is designed to familiarize the student with management concepts and techniques of industrial accounting procedures. Emphasis is placed on cost behavior, contribution approach to decision-making, budgeting, overhead analysis, cost-volume-profit analysis, and cost accounting systems. PREREQUISITE: BUS241.

## BUS263 - Legal and Social Environment of Business (3 cr. hrs.)

This course provides an overview of the legal and social environment for business operations with emphasis on contemporary issues and their subsequent impact on business. Topics include the Constitution, the Bill of Rights, the legislative process, civil and criminal law, administrative agencies, trade regulations, consumer protection, contracts, employment and personal property. PREQUISITE: None.

## BUS271 – Business Statistics I - (3 cr. hrs.)

This is an introductory study of basic statistical concepts applied to economic and business problems. Topics include the collection, classification, and presentation of data, statistical description and analysis of data, measures of central tendency and dispersion, elementary probability, sampling, estimation and introduction to hypothesis testing. PREREQUISITE: Two years of high school Algebra, Intermediate Algebra or appropriate score on math Placement Test.

#### BUS272 – Business Statistics II - (3 cr. hrs.)

This course is a continuation of BUS272. Topics include sampling theory, statistical interference, regression and correlation, chi square, analysis of variance, time series index numbers and decision theory. PREREQUISITE: BUS271.

#### **BUS275 – Principles of Management - (3 cr. hrs.)**

This course provides a basic study of the principles of management. Topics include planning, organizing, staffing, directing and controlling with emphasis on practical business applications. PREQUISITE: None.

## BUS276 - Human Resources Management - (3 cr. hrs.)

This course provides an overview of the responsibilities of the supervisor of human resources. Topics include the selection, placement, testing, orientation, training, rating, promotion, and transfer of employees. PREREQUISITE: None.

# BUS279 - Small Business Management - (3 cr. hrs.)

This course provides an overview of the creation and operation of a small business. Topics include buying a franchise, starting a business, identifying capital resources, understanding markets, managing

customer credit, managing accounting systems, budgeting systems, inventory systems, purchasing insurance, and the importance of appropriate legal counsel. PREREQUISITE: None.

# BUS285 – Principles of Marketing - (3 cr. hrs.)

This course provides a general overview of the field of marketing. Topics include marketing strategies, channels of distribution, marketing research, and consumer behavior. PREREQUISITE: None.

## **Computer Information Systems (CIS)**

#### CIS146 – Microcomputer Applications - (3 cr. hrs.)

This course is an introduction to the most common microcomputer software applications. These software packages should include typical features of applications, such as word processing, spreadsheets, database management, and presentation software. Upon completion, students will be able to utilize selected features of these packages. This course will help prepare students for the MOS and IC3 certification.

## CIS147 – Advanced Micro Applications - (3 cr. hrs.)

This course is a continuation of CIS 146 in which students utilize the advanced features of topics covered in CIS 146. Advanced functions and integration of word processing, spreadsheets, database, and presentation packages among other topics are generally incorporated into the course and are to be applied to situations found in society and business. Upon completion, the student should be able to apply the advanced features of selected software appropriately to typical problems found in society and business. This course will help prepare students for the MOS certification. PREREQUISITE: As required by program.

#### CIS149 – Introduction to Computers - (3 cr. hrs.)

This course is an introduction to computers and their impact on society. The course covers the development of computers, their impact on society, as well as future implications of development of computer and related communication technologies. This course introduces programming and computer operating systems. Upon completion, students will have basic knowledge of computer technology and will be able to perform basic functions with a computer system. The course will help prepare students for the IC3 certification. PREREQUISITE: As required by college.

# CIS150 – Introduction to Computer Logic and Programming - (3 cr. hrs.)

This course includes logic, design and problem solving techniques used by programmers and analysts in addressing and solving common programming and computing problems. The most commonly used techniques of flowcharts, structure charts, and pseudo code will be covered and students will be expected to apply the techniques to designated situations and problems. PREREQUISITE: As required by college.

## CIS151 – Graphics for the World Wide Web - (3 cr. hrs.)

This course provides an overview to the theory, tools, and techniques necessary for creating high-quality graphics using various design software tools. At the completion of this course students will be able to apply various software packages to create graphics for Web applications in raster or vector format. PREREQUISITE: As required by college.

#### CIS157 - Introduction to App Development with Swift - (3 cr. hrs.)

This introductory one-semester course is designed to help students build a solid foundation in programming fundamentals using Swift as the language. Students get practical experience with the tools, techniques, and concepts needed to build a basic iOS system.

## CIS171 -LINUX I - (3 cr. hrs.)

This course presents fundamental applications in Linux. Included in this course are skills development for OS installation and setup, recompile techniques, system configuration settings, file/folder structures and types, run levels, basic network applications, and scripting. Additionally, the course presents security features from an administrative and user consideration. PREREQUISITE: As required by college.

## CIS172 – Fundamentals LINUX II - (3 cr. hrs.)

This course presents fundamental applications in Linux. Included in this course are skills development for OS installation and setup, recompile techniques, system configuration settings, file/folder structures and types, run levels, basic network applications, and scripting. Additionally, the course presents security features from an administrative and user consideration. PREREQUISITE: CIS171.

## CIS185 - Computer Ethics - (3cr. hrs.)

This course will survey the various issues surrounding computer ethics.

## CIS189 - CO-OP for CISI - (3 cr. hrs)

This course is part of a series wherein the student works in a degree/program related job. Emphasis is placed on student's work experience as it integrates academic knowledge with practical application through exposure to computer practices in informational technologies environment. The grade is based on the employer's evaluation of each student's productivity, content of a descriptive report submitted by the student, and student development and assessment of a learning contract.

## CIS196 – Commercial Software Applications - (3 cr. hrs.)

This is a "hands-on" introduction to software packages, languages, and utility programs currently in use, with the course being able to repeat for credit for each different topic being covered. Emphasis is placed on the purpose capabilities and utilization of each package, language or program. Upon completion, students will be able to use the features selected for the application covered. PREREQUISITE: As required by college.

#### CIS197 – Advanced Commercial Software Applications - (3 cr. hrs.)

This course provides the student with hands-on experience in using the advanced features of software packages, languages, and utility programs currently in use. Each offering focuses on one software package with credit being received for each different package. Upon completion, students will be able to use the features selected for the application covered. PREREQUISITE: As required by college.

## CIS199 – Network Communications - (3 cr. hrs.)

This course is designed to introduce students to the basic concepts of computer networks. Emphasis is placed on gaining an understanding of the terminology and technology involved in implementing networked systems. The course will cover the OSI and TCP/IP network models, communications protocols, transmission media, networking hardware and software, LANs (Local Area Networks) and WANs (Wide Area Networks), Client/Server technology, the Internet, Intranets and network troubleshooting. Upon completion of the course, students will be able to design and implement a computer network. Students will create network shares, user accounts, and install print devices while

ensuring basic network security. They will receive hands-on experience building a mock network in the classroom. CIS 161 or CIS 272 may be used as a suitable substitute for this course. PREREQUISITE: As required by college.

## CIS203 – Introduction to the Information Highway - (3 cr. hrs.)

This course introduces students to basic principles of the information highway. Students are exposed to different network information tools such as electronic mail, network news, browsers, commercial information services, appropriate editors, and Web authoring software. PREREQUISITE: As required by college.

## CIS207 – Web Development - (3 cr. hrs.)

This course provides students with opportunities to learn Hypertext Markup Language, cascading style sheets, and Java Script. At the conclusion of this course, students will be able to use specified markup languages to develop basic Web pages. PREREQUISITE: As required by college.

## CIS208 – Web Authoring Software - (3 cr. hrs.)

Students utilize various Web authoring tools to construct and edit Web sites for a variety of applications. Upon completion students will be able to use these tools to develop or enhance Web sites. PREREQUISITE: As required by college.

## CIS209 – Advanced Web Development - (3 cr. hrs.)

This is an advanced Web design course emphasizing the use of scripting languages to develop interactive Web sites. Upon completion students will be able to create data driven Web sites. PREREQUISITE: As required by college.

#### CIS212 – Visual Basic Programming - (3 cr. hrs.)

This course emphasizes BASIC programming using a graphical user interface. The course will emphasize graphical user interfaces with additional topics on such topics as advanced file handling techniques, simulation, and other selected areas. Upon completion, the student will been able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. PREREQUISITE: As required by college.

## CIS213 – Advanced Visual Basic Programming - (3 cr. hrs.)

This course is a continuation of CIS 212, Visual Basic Programming. PREREQUISITE: As required by college.

## CIS215 - C+ Programming - (3 cr. hrs.)

This course is an introduction to the C# programming language. The goal of this course is to provide students with the knowledge and skills they need to develop C# applications for the Microsoft .NET Platform. Topics include program structure, language syntax, and implementation details. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. PREREQUISITE: As required by program.

## CIS220 - APP DEVELOPMENT WITH SWIFT - (3 cr. hrs.)

This is the first of two courses designed to teach specific skills related to app development using Swift language. PREREQUISITE: As required by program.

#### CIS222 - Database Management Systems- (3 cr. hrs.)

This course will discuss database system architectures, concentrating on Structured Query Language (SQL). It will teach students how to design, normalize and use databases with SQL, and to link those to the Web. PREREQUISITE: As required by course.

## CIS227 - APP DEVELOPMENT WITH SWIFT II - (3 cr. hrs.)

This course focuses on building specific features for iOS apps. Students apply their knowledge and skills to developing new apps. PREREQUISITE: As required by course.

#### CIS245 – Cyber Defense - (3 cr. Hrs.)

The course provides students with information on the concept of cyber defense. Topics include information relative to legal aspects of cyber attacks, threats to various levels of national and local social infrastructure, financial systems, personal data, and other direct and indirect threats. As part of this course students explore current and historical cyber threats and U.S. policy regarding infrastructure protection. PREREQUISITE: As required by course.

## CIS246 – Ethical Hacking - (3 cr. hrs.)

This course emphasizes scanning, testing, and securing computer systems. The lab-intensive environment provides opportunities to understand how perimeter defenses work and how hackers are able to compromise information systems. With awareness of hacking strategies, students learn to counteract those attempts in an ethical manner. PREREQUISITE: As required by college.

## CIS249 - Microcomputer Operating Systems - (3 cr. hrs.)

This course provides an introduction to microcomputer operating systems. Topics include a description of the operating system, system commands, and effective and efficient use of the microcomputer with the aid of its system programs. Upon completion, students should understand the function and role of the operating system, its operational characteristics, its configuration, how to execute programs, and efficient disk and file management. PREREQUISITE: As required by college.

#### CIS251 – C++ Programming - (3 cr. hrs.)

This course is an introduction to the C++ programming language including object oriented programming. Topics include: problem solving and design; control structures; objects and events; user interface construction; and document and program testing. PREREQUISITE: As required by college.

#### CIS252 – Advanced C++ Programming - (3 cr. hrs.)

This course is a continuation of C++ programming. Techniques for the improvement of application and systems programming will be covered and other topics may include memory management, C Library functions, debugging, portability, and reusable code. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. PREREQUISITE: As required by college.

## CIS255 - JAVA Programming - (3 cr. hrs.)

This course is an introduction to the Java programming language. Topics in this course include object-oriented programming constructs, Web page applet development, class definitions, threads, events and exceptions. Upon completion, the student will be able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. PREREQUISITE: As required by college.

#### CIS256 - Advanced JAVA - (3 cr. hrs.)

This course is a second course of a sequence using the Java programming language. Topics include: Sun's Swing GUI components, JDBC, JavaBeans, RMI, servlets, and Java media framework. Upon completion, the student will be able to demonstrate knowledge of the topics through programming projects and appropriate exams. PREREQUISITE: As required by college.

## CIS268 - Software Support- (3 cr. hrs.)

This course provides students with hands-on practical experience in installing computer software, operating systems, and trouble-shooting. The class will help to prepare participants for the A+ Certification sponsored by CompTIA. This course is a suitable substitute for CIS 239, Networking Software. PREREQUISITE: As required by program. **CORE** 

#### CIS269 - Hardware Support - (3 cr. hrs.)

This course provides students with hands-on practical experience in installation and troubleshooting computer hardware. The class will help to prepare participants for the A+ Certification sponsored by CompTIA. This is a suitable substitute for CIS 240, Networking Hardware. PREREQUISITE: As required by program.

## CIS270 - CISCO I CCNA- (3 cr. hrs.)

This course is the first part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. The content of this course is based on current requirements from the CISCO Networking Academy certification standards. PREREQUISITE: As required by program.

## CIS271 - CISCO II CCNA - (3 cr. hrs.)

This course is the second part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. The content of this course is based on current requirements from the Cisco Networking Academy certification standards. PREREQUISITE: As required by program.

## CIS272 - CISCO CCNA III - (3 cr. hrs.)

This course is the third part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. The content of this course is based on current requirements from the Cisco Networking Academy certification standards. PREREQUISITE: As required by program.

#### CIS273 - CISCO CCNA IV - (3 cr. hrs.)

This course is the fourth part of a four part curriculum leading to Cisco Certified Network Associate (CCNA) certification. The content of this course is based on current requirements from the Cisco Networking Academy certification standards. PREREQUISITE: As required by program.

## CIS276 – Server Administration - (3 cr. hrs.)

This course introduces network operating system administration. Topics included in this course are network operating system software installation, administration, monitoring, and maintenance; user, group, and computer account management; shared resource management; and server hardware management. Students gain hands-on experience in managing and maintaining a network operating system environment. PREREQUISITE: As required by program.

# CIS277 – Network Services Administration - (3 cr. hrs.)

This course provides an introduction to the administration of fundamental networking services and protocols. Topics included in this course are implementing, managing, and maintaining essential

network operating system services such as those for client address management, name resolution, security, routing, and remote access. Students gain hands-on experience performing common network infrastructure administrative tasks. PREREQUISITE: As required by program.

#### CIS280 - Network Security - (3 cr. hrs.)

This course provides a study of threats to network security and methods of securing a computer network from such threats. Topics included in this course are security risks, intrusion detection, and methods of securing authentication, network access, remote access, Web access, and wired and wireless network communications. Upon completion students will be able to identify security risks and describe appropriate counter measures. PREREQUISITE: As required by program.

## CIS281 – System Analysis and Design - (3 cr. hrs.)

This course is a study of contemporary theory and systems analysis and design. Emphasis is placed on investigating, analyzing, designing, implementing, and documenting computer systems. Upon completion, the student will been able to demonstrate knowledge of the topics through the completion of programming projects and appropriate tests. PREREQUISITE: As required by program.

# CIS282 - Computer Forensics - (3 cr. hrs.)

This course introduces students to methods of computer forensics and investigations. This course helps prepare students for industry specific certification. PREREQUISITES: As required by program.

## CIS284 - CIS Internship - (3 cr. hrs.)

This course is designed to provide the student with an opportunity to work in a degree/program related environment. Emphasis is placed on the student's "real world" work experience as it integrates academics with practical applications that relate meaningfully to careers in the computer discipline. Significance is also placed on the efficient and accurate performance of job tasks as provided by the "real world" work experience. Grades for this course will be based on a combination of the employer's evaluation of the student, and the contents of a report submitted by the student. Upon completion of this course, the student should be able to demonstrate the ability to apply knowledge and skills gained in the classroom to a "real world" work experience. PREREQUISITE: As required by program.

#### CIS287 – SQL Server - (3 cr. hrs.)

This course will provide students with the technical skill required to install, configure, administer and troubleshoot SQL Server client/server database management system. At the completion of this series students will be able to: identify the features of SQL Server and the responsibilities and challenges in system administration; identify the benefits of integrating SQL Server and setup clients for SQL Server; install and configure SQL Server; manage data storage using database devices and partition data using segments; manage the user accounts; manage user permissions; identify the various task scheduling and alerting abilities of SQL Executive; identify the concepts used in replication and implement replication of data between two SQL Services; identify the types of backup and create backup devices; identify the factors effecting SQL Server performance and the need for monitoring and tuning; locate and troubleshoot problems that occur on the SQL Server. PREREQUISITE: As required by program.

#### CIS294 – Special Topics - (3 cr. hrs.)

This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered. Upon completion, the student will be able

to demonstrate knowledge of the course topic through completion of assignments and appropriate tests. PREREQUISITE: As required by college.

## CIS296 - Special Topics - (3 cr. hours)

This course allows study of currently relevant computer science topics, with the course being able to be repeated for credit for each different topic covered. Course content will be determined by the instructor and will vary according to the topic being covered. Upon completion, the student will be able to demonstrate specified skills. PREREQUISITE: As required by college.

# General and Developmental Education

## Art (ART)

# ART100 - Art Appreciation - (3 cr. hrs.)

This course is designed to help the student find personal meaning in works of art and develop a better understanding of the nature and validity of art. Emphasis is on the diversity of form and content in original art work. Upon completion, students should understand the fundamentals of art, the materials used and have a basic overview of the history of art. PREREQUISITE: As required by program.

#### ART203 – Art History I - (3 cr. hrs.)

This course covers the chronological development of different forms of art, such as sculpture, painting, and architecture. Emphasis is placed on history from the ancient period through the Renaissance. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles and of the impact of society on the arts. PREREQUISITE: None.

#### ART204 - ART HISTORY II - (3 cr. hrs.)

This course covers a study of the chronological development of different forms of art, such as sculpture, painting and architecture. Emphasis is placed on history from the Baroque to the present. Upon completion, students should be able to communicate a knowledge of time period and chronological sequence including a knowledge of themes, styles and of the impact of society on the arts. PREREQUISITE: As required by program.

## **Biology (BIO)**

## BIO103 - Principles of Biology I - (4 cr. hrs.)

This is an introductory course for science and non-science majors. It covers physical, chemical, and biological principles common to all organisms. These principles are explained through a study of cell structure and function, cellular reproduction, basic biochemistry, cell energetics, the process of photosynthesis, and Mendelian and molecular genetics. Also included are the scientific method, basic principles of evolution, and an overview of the diversity of life with emphasis on viruses, prokaryotes, and protist. A 120 minute laboratory is required. PREREQUISITE: As required by program.

# BIO104 – Principles of Biology II - (4 cr. hrs.)

This course is an introduction to the basic ecological and evolutionary relationships of plants and animals and a survey of plant and animal diversity including classification, morphology, physiology, and reproduction. A 180 minute laboratory is required. PREREQUISITE: BIO103.

#### BIO120 - Medical Terminology - (4 cr. hrs.)

This course is a survey of words, terms, and descriptions commonly used in medical arts. Emphasis is placed on spelling, pronunciation, and meanings of prefixes, suffixes, and roots. No laboratory is required. PREREQUISITE: As required by program.

## BIO201 – Human Anatomy and Physiology I - (4 cr. hrs.)

Human Anatomy and Physiology I covers the structure and function of the human body. Included is an orientation of the human body, basic principles of chemistry, a study of cells and tissues, metabolism, joints, the integumentary, skeletal, muscular, and nervous systems, and the senses. Dissection, histological studies, and physiology are featured in the laboratory experience. A 120 minute laboratory is required.

## BIO202 – Human Anatomy and Physiology II - (4 cr. hrs.)

Human Anatomy and Physiology II covers the structure and function of the human body. Included is a study of basic nutrition, basic principles of water, electrolyte, and acid-base balance, the endocrine, respiratory, digestive, excretory, cardiovascular, lymphatic, and reproductive systems. Dissection, histological studies, and physiology are featured in the laboratory experience. A 120 minute laboratory is required. PREREQUISITE: BIO201.

#### BIO220 – General Microbiology - (4 cr. hrs.)

This course includes historical perspectives, cell structure and function, microbial genetics, infectious diseases, immunology, distribution, physiology, culture, identification, classification, and disease control of microorganisms. The laboratory experience includes micro-techniques, distribution, culture, identification, and control. Two 120 minute laboratories are required. PREREQUISITE: BIO103.

#### Basic Study Skills/Personal Development (BSS)

# BSS220 - Professional Transition - (1 cr. hr.)

This course provides preparation for meeting the demands of employment or education beyond the community college experience. Emphasis is placed on strategic planning, gathering information on workplaces or colleges, and developing human interaction skills for professional, academic, and/or community life. Upon completion, students should be able to successfully make the transition to appropriate workplaces or senior institutions.

## **Chemistry (CHM)**

#### CHM111 – College Chemistry I - (4 cr. hrs.)

This is the first course in a two-semester sequence designed for the science or engineering major who is expected to have a strong background in mathematics. Topics in this course include measurement, nomenclature, stoichiometry, atomic structure, equations and reactions, basic concepts of thermochemistry, chemical and physical properties, bonding, molecular structure, gas laws, kinetic-molecular theory, condensed matter, solutions, colloids, and some descriptive chemistry topics. Laboratory is required. PREREQUISITE: MTH112 (Precalculus Algebra) or equivalent math placement score. PREREQUISITE: As required by program.

#### CHM112 - College Chemistry II - (4 cr. hrs.)

This is the second course in a two-semester sequence designed primarily for the science and engineering student who is expected to have a strong background in mathematics. Topics in this course include chemical kinetics, chemical equilibria, acids and bases, ionic equilibria of weak electrolytes, solubility product principle, chemical thermodynamics, electrochemistry, oxidation-reduction, nuclear chemistry,

an introduction to organic chemistry and biochemistry, atmospheric chemistry, and selected topics in descriptive chemistry including the metals, nonmetals, semi-metals, coordination compounds, transition compounds, and post-transition compounds. Laboratory is required. PREREQUISITE: CHM111

## **Economics (ECO)**

## ECO231 - Principles of Macroeconomics - (3 cr. hrs.)

This course is an introduction to macroeconomic theory, analysis, and policy applications. Topics include the following: scarcity, demand and supply, national income analysis, major economic theories concerning monetary and fiscal policies as stabilization measures, the banking system, and other economic issues or problems including international trade. PREREQUISITE: As required by program.

## ECO232 – Principles of Microeconomics- (3 cr. hrs.)

This course is an introduction of the microeconomic theory, analysis, and applications. Topics include scarcity; the theories of consumer behavior, production and cost, markets, output and resource pricing, and international aspects of microeconomics. PREREQUISITE: Successful completion of ENG 093; or a score of 62 or better on the English section ACUPLACER; or a score of 20 or better on the ACT.

# **English (ENG)**

# ENG093 Basic English II - (3 cr. Hrs.)

This course is a review of composition skills and grammar. Emphasis is placed on coherence and the use of a variety of sentence structures in the composing process and on standard American written English usage. Students will demonstrate these skills chiefly through the writing of paragraph blocks and short essays.

#### **ENGO99- Introduction to College Writing - (1-2 cr. hrs.)**

This course places emphasis on providing students with additional academic and non-cognitive support with the goal of success in the students' paired ENG 101 class. The material covered or practiced in the ENG 099 course is complementary to and supportive of material taught in ENG 101 and the needs of the ENG 099 student. PREREQUISITE: None

**COREQUISITE: ENG 101** 

## **ENG101 – English Composition I - (3 cr. hrs.)**

English Composition I provides instruction and practice in the writing of at least six (6) extended compositions and the development of analytical and critical reading skills and basic reference and documentation skills in the composition process. English Composition I may include instruction and practice in library usage. PREREQUISITE: ENRO98 or appropriate English placement score.

## **ENG102** – English Composition II - (3 cr. hrs.)

English Composition II provides instruction and practice in the writing of six (6) formal, analytical essays, at least one of which is a research project using outside sources and/or references effectively and legally. Additionally, English Composition II provides instruction in the development of analytical and critical reading skills in the composition process. English Composition II may include instruction and practice in library usage. PREREQUISITE: A grade of "C" or better in ENG101 or the equivalent.

#### ENG251 – American Literature I - (3 cr. hrs.)

This course is a survey of American literature from its inception to the middle of the nineteenth century. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon

completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research. PREREQUISITE: ENG102 or equivalent.

#### **ENG252** – American Literature II - (3 cr. hrs.)

This course is a survey of American literature from the middle of the nineteenth century to the present. Emphasis is placed on representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research. PREREQUISITE: ENG102 or equivalent.

#### ENG271 – World Literature I – (3 cr. hrs.)

This course is a study of selected literary masterpieces from Homer to the Renaissance. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research. PREREQUISITE: ENG102 or equivalent.

#### ENG272 – World Literature II - (3 cr. hrs.)

This course is a study of selected literary masterpieces from the Renaissance to the present. Emphasis is placed on major representative works and writers of this period and on the literary, cultural, historical, and philosophical forces that shaped these works and that are reflected in them. Upon completion and in written compositions, students will be able to interpret the aesthetic and thematic aspects of these works, relate the works to their historical and literary contexts, and understand relevant criticism and research. PREREQUISITE: ENG102 or equivalent.

## **English/Reading (ENR)**

**ENRO98 – Writing and Reading for College (4 cr. hrs.)** This course integrates reading and writing skills students need to comprehend and interact with college-level texts and to produce original college-level writing. Reading skills will center on processes for literal and critical comprehension, as well as the development of vocabulary skills. Writing skills will focus on using an effective writing process including generating ideas, drafting, organizing, revising and editing to produce competent essays using standard written English. This course may include a one-hour lab component. PREREQUISITES: None COREQUISITES: None

#### History (HIS)

## HIS121 – World History I - (3 cr. hrs.)

This course surveys social, intellectual, economic, and political developments which have molded the modern world. Focus is on both non-western and western civilizations from the prehistoric to the early modern era. PREREQUISITE: Successful completion of ENG 093 or a score of or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

#### HIS122 – World History II - (3 cr. hrs.)

This course is a continuation of HIS 121; it covers world history, both western and non-western, from the early modern era to the present. PREREQUISITE: Successful completion of ENG 093 or a score of or a

score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## HIS201 – United States History I - (3 cr. hrs.)

This course surveys United States history during colonial, Revolutionary, early national and antebellum periods. It concludes with the Civil War and Reconstruction. PREREQUISITE: Successful completion of ENG 093 or a score of or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## HIS202 – United States History II (3 cr. hrs.)

This course is a continuation of HIS 201; it surveys United States history from the Reconstruction era to the present. PREREQUISITE: Successful completion of ENG 093 or a score of or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## **Mathematics (MTH)**

## MTH090 - Basic Mathematics - (3 cr. hrs.)

This course is a review of the fundamental arithmetic operations. PREREQUISITE: Appropriate mathematics placement score.

MTH098 – Elementary Algebra - (4cr. hrs.) This course provides a study of the fundamentals of algebra. Topics include the real number system, linear equations and inequalities, graphing linear equations and inequalities in two variables and systems of equations. This course does not apply toward the general core requirement for mathematics. PREREQUISITE: None

# MTH099 - Support for Intermediate College Algebra - (1-2 cr. hrs.)

This learning support course provides co-requisite support in mathematics for students enrolled in MTH 100. The material covered in this course is parallel to and supportive of the material taught in MTH 100. Emphasis is placed on providing students with additional academic and non-cognitive support with the goal of success in the students' paired MTH 100 class. This class does not serve as the general core requirement for mathematics. PREREQUISITE: Appropriate mathematics placement score (MTH 098 is not a pre-requisite for MTH 099. A student who successfully completes MTH 098 is eligible for MTH 100 without the support course.) COREQUISITE: MTH 100 Intermediate College Algebra

## MTH100 – Intermediate College Algebra - (3 cr. hrs.)

This course provides a study of algebraic concepts such as laws of exponents, polynomial operations, factoring polynomials, radical and rational expressions and equations and quadratic equations. Functions and relations are introducing and graphed. This course does not apply toward the general core requirement for mathematics. PREREQUISITE: MTH 098 Elementary Algebra or appropriate mathematics placement score.

#### MTH110 – Finite Mathematics - (3 cr. hrs)

This course is intended to give an overview of topics in finite mathematics together with their applications, and is taken primarily by students who are not majoring in science, engineering, commerce, or mathematics (i.e., students who are not required to take Calculus). This course will draw on and significantly enhance the student's arithmetic and algebraic skills. The course includes sets, counting, permutations, combinations, basic probability (including Baye's Theorem), and introduction to statistics (including work with Binomial Distributions and Normal Distributions), matrices and their applications to Markov chains and decision theory. Additional topics may include symbolic logic, linear models, linear programming, the simplex method and applications. PREREQUISITE: All core mathematics

courses in Alabama must have as a minimum prerequisite high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with a C or higher (S if taken as pass/fail) Intermediate College Algebra.

#### MTH112 - Pre-Calculus Algebra - (3 cr. hrs.)

This course emphasizes the algebra of functions - including polynomial, rational, exponential, and logarithmic functions. The course also covers systems of equations and inequalities, quadratic inequalities, and the binomial theorem. Additional topics may include matrices, Cramer's Rule, and mathematical induction. PREREQUISITE: All core mathematics courses in Alabama must have as a minimum prerequisite high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score. An alternative to this is that the student should successfully pass with C or higher (S if taken as pass/fail) Intermediate College Algebra.

## MTH113 - Pre-Calculus Trigonometry - (3 cr. hrs.)

This course includes the study of trigonometric (circular functions) and inverse trigonometric functions, and includes extensive work with trigonometric identities and trigonometric equations. The course also covers vectors, complex numbers, DeMoivre's Theorem, and polar coordinates. Additional topics may include conic sections, sequences, and using matrices to solve linear systems. PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher (S if taken as pass/fail) MTH 112.

#### MTH116 - Mathematical Applications - (3 cr. hrs.)

This course provides practical applications of mathematics and includes selected topics from consumer math and algebra. Some topics included are integers, percent, interest, ratio and proportion, metric system, probability, linear equations, and problem solving. PREREQUISITE: MTH 090 or appropriate mathematics placement score.

#### MTH120 – Calculus and Its Applications - (3 cr. hrs.)

This course is intended to give a broad overview of calculus and is taken primarily by students majoring in Commerce and Business Administration. It includes differentiation and integration of algebraic, exponential, and logarithmic functions and applications to business and economics. The course should include functions of several variables, partial derivatives (including applications), Lagrange Multipliers, L'Hopital's Rule, and multiple integration (including applications). PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 112.

## MTH125 – Calculus I - (4 cr. hrs.)

This is the first of three courses in the basic calculus sequence taken primarily by students in science, engineering, and mathematics. Topics include the limit of a function; the derivative of algebraic, trigonometric, exponential, and logarithmic functions; and the definite integral and its basic applications to area problems. Applications of the derivative are covered in detail, including approximations of error using differentials, maximum and minimum problems, and curve sketching using calculus. PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 113 or MTH 115.

#### MTH126 - Calculus II - (4 cr. hrs.)

This is the second of three courses in the basic calculus sequence. Topics include vectors in the plane and in space, lines and planes in space, applications of integration (such as volume, arc length, work and average value), techniques of integration, infinite series, polar coordinates, and parametric equations. PREREQUISITE: A minimum prerequisite of high school Algebra I, Geometry, and Algebra II with an appropriate mathematics placement score is required. An alternative to this is that the student should successfully pass with a C or higher MTH 125.

## MTH227 - CALCULUS III - (4 cr. hrs.)

This is the third of three courses in the basic calculus sequence. Topics include vector functions, functions of two or more variables, partial derivatives (including applications), quadric surfaces, multiple integration, and vector calculus (including Green's Theorem, Curl and Divergence, surface integrals, and Stokes' Theorem. PREREQUISITE: MTH 126.

## Music (MUS)

## MUS101 – Music Appreciation - (3 cr. hrs.)

This course is designed for non-music majors and requires no previous musical experience. It is a survey course that incorporates several modes of instruction including lecture, guided listening, and similar experiences involving music. The course will cover a minimum of three (3) stylistic periods, provide a multi-cultural perspective, and include both vocal and instrumental genres. Upon completion, students should be able to demonstrate a knowledge of music fundamentals, the aesthetic/stylistic characteristics of historical periods, and an aural perception of style and structure in music. PREREQUISITE: As required by program.

# **Orientation (ORI)**

#### ORI101 - Orientation - (1 cr. hr.)

This course aids new students in their transition to the institution; exposes new students to the broad educational opportunities of the institution; and integrates new students into the life of the institution. PREREQUISITE: None.

## Philosophy (PHL)

#### PHL206 – Ethics and Society - (3 cr. hrs.)

This course involves the study of ethical issues which confront individuals in the course of their daily lives. The focus is on the fundamental questions of right and wrong, of human rights, and of conflicting obligations. The student should be able to understand and be prepared to make decisions in life regarding ethical issues. PREREQUISITE: Successful completion of ENG093; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## Physical Science (PHS)

#### PHS111 – Physical Science I - (4 cr. hrs.)

This course provides the non-technical student with an introduction to the basic principles of geology, oceanography, meteorology, and Astronomy. Laboratory is required. PREREQUISITE: As required by program.

#### PHS112 – Physical Science II - (4 cr. hrs.)

This course provides the non-technical student with an introduction to the basic principle of chemistry and physics. Laboratory is required. PREREQUISITE: As required by program.

## Physics (PHY)

# PHY201 - General Physics I - Trig Based -(4 cr. hrs.)

This course is designed to cover general physics at a level that assures previous exposure to college algebra, basic trigonometry. Specific topics include mechanics, properties of matter and energy, thermodynamics, and periodic motion. A laboratory is required. PREREQUISITE: MTH113 or equivalent.

#### PHY202 – General Physics II – Trig Based - (4 cr. hrs.)

This course is designed to cover general physics using college algebra and basic trigonometry. Specific topics include wave motion, sound, light optics, electrostatics, circuits, magnetism, and modern physics. Laboratory is required. PREREQUISITE: PHY201.

## PHY213 – General Physics with Calculus I - (4 cr. hrs.)

This course provides a calculus-based treatment of the principle subdivisions of classical physics: mechanics and energy, including thermodynamics. Laboratory is required. PREREQUISITE: MTH125 or Instructor permission.

## PHY214 - General Physics with Calculus II - (4 cr. hrs.)

This course provides a calculus-based study in classical physics. Topics included are: simple harmonic motion, waves, sound, light, optics, electricity and magnetism. Laboratory is required. PREREQUISITE: PHY 213.

# **Political Science (POL)**

#### POL200 - Introduction to Political Science - (3 cr. hrs.)

This course is an introduction to the field of political science through examination of the fundamental principles, concepts, and methods of the discipline, and the basic political processes and institutions of organized political systems. Topics include approaches to political science, research methodology, the state, government, law, ideology, organized political influences, governmental bureaucracy, problems in political democracy, and international politics. Upon completion, students should be able to identify, describe, define, analyze, and explain relationships among the basic principles and concepts of political science and political processes and institutions of contemporary political systems. PREREQUISITE: None.

#### Psychology (PSY)

## PSY200 - General Psychology - (3 cr. hrs.)

This course is a survey of behavior with emphasis upon psychological processes. This course includes the biological bases for behavior, thinking, emotion, motivation, and the nature and development of personality. PREREQUISITE: Successful completion of ENG093; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## PSY210 - Human Growth and Development - (3 cr. hrs.)

This course is the study of the psychological, social, and physical factors that affect human behavior from conception to death. PREREQUISITE: PSY200.

## Reading (RDG)

## RDG114 - Critical Reading for College - (3 cr. hrs.)

This course is designed to enhance critical reading skills. Topics include vocabulary enrichment, reading flexibility, metacognitive strategies, and advanced comprehension skills, including analysis and

evaluation. Upon completion, students should be able to demonstrate comprehension and analysis and respond effectively to material across disciplines. PREREQUISITE: Permission of instructor.

# **Religious Studies (REL)**

## REL100 - History of World Religions - (3 cr. Hrs.)

This course is designed to acquaint the student with the beliefs and practices of the major contemporary religions of the world. This includes religions of Africa, the Orient, and the western world. The student should have an understanding of the history and origins of the various religions of the world. PREREQUISITE: Successful completion of ENR098; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

#### REL151 – Survey of the Old Testament - (3 cr. hrs.)

This course is an introduction to the content of the Old Testament with emphasis on the historical context and contemporary theological and cultural significance of the Old Testament. The student should have an understanding of the significance of the Old Testament writings upon completion of this course. PREREQUISITE: Successful completion of ENR098; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

# REL152 – Survey of the New Testament - (3 cr. hrs.)

This course is a survey of the books of the New Testament with special attention focused on the historical and geographical setting. The student should have an understanding of the books of the New Testament and the cultural and historical events associated with these writings. PREREQUISITE: Successful completion of ENR098; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## Sociology (SOC)

#### SOC200 – Introduction to Sociology - (3 cr. hrs.)

This course is an introduction to the vocabulary, concepts, and theory of sociological perspectives of human behavior. PREREQUISITE: Successful completion of ENR098; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

#### Spanish (SPA)

## SPA101 – Introductory Spanish I - (3 cr. hrs.)

This course provides an introduction to Spanish. Topics include the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish-speaking areas. PREREQUISITE: Successful completion of ENR098; or a score of 5 or better on the WritePlacer section of Accuplacer; or a score of 18 or better on the ACT English.

## SPA102 – Introductory Spanish II - (3 cr. hrs.)

This continuation course includes the development of basic communication skills and the acquisition of basic knowledge of the cultures of Spanish-speaking areas. PREREQUISITE: Spanish 101 or equivalent

## Speech (SPH)

#### SPH106 – Fundamentals of Oral Communication - (3 cr. hrs.)

Fundamentals of Oral Communication is a performance course that includes the principles of human communication: intrapersonal, interpersonal, and public. It surveys current communication theory and provides practical application. PREREQUISITE: As required by program.

## SPH107 – Fundamentals of Public Speaking - (3 cr. hrs.)

This course explores principles of audience and environment analysis as well as the actual planning, rehearsing and presenting of formal speeches to specific audiences. Historical foundations, communication theories and student performances are emphasized. PREREQUISITE: As required by program.

#### **Theater**

## THR120 - Theater Appreciation - (3 cr. hrs.)

This course is designed to increase appreciation of contemporary theater. Emphasis is given to the theater as an art form through the study of history and theory of drama and the contributions to modern media. Emphasis of playwright, actor, director, designer and technician to modern media. Attendance at theater production may be required. PREREQUISITE: As required by program.

#### THR126- Introduction to Theater - (3 cr. hrs.)

This course is designed to teach the history of the theater and the principles of drama. It also covers the development of theater production and the study of selected plays as theatrical presentations. PREREQUISITE: As required by program.

## **Health Sciences**

# **Medical Assisting (MAT)**

# MAT102 - Medical Assisting Theory I - (3 cr. hrs.)

A description of anatomical descriptors and the cell introduces the student to and serves as an overview of the body's systems. The structure and function of the nervous, sensory, integumentary, muscular, skeletal, respiratory, and cardiovascular systems are taught with the diseases related to these systems presented. Upon completion, students should be able to demonstrate a basic working knowledge of these body systems. PREREQUISITE: as required by the college.

## MAT103 – Medical Assisting Theory II - (3 cr. hrs.)

The structure and function of the digestive, urinary, reproduction, endocrine, and immune systems are presented. Disease processes that are related to these systems will be included. Basic concepts of reproduction, growth and development, and nutrition are taught. Upon completion, students should be able to demonstrate a basic working knowledge of these body systems. PREREQUISITE: as required by the college.

## MAT111 – Clinical Procedures I for the Medical Assistant - (3 cr. hrs.)

This course includes instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with examination, and patient education. Upon completion, students will be able to demonstrate competence in exam room procedures. PREREQUISITE: as required by the college.

#### MAT120 – Medical Administrative Procedures I - (3 cr. hrs.)

This course introduces medical office administrative procedures. Topics include appointment scheduling, telephone techniques, managing the physician's schedule, handling mail, preparing and maintaining medical records, and patient orientation. Upon completion, students should be able to perform basic medical administrative skills. PREREQUISITE: as required by the college.

#### MAT121 - Medical Administrative Procedures II - (3 cr. hrs.)

This course introduces medical office administrative procedures not covered in Medical Administrative Procedures I. Topics include fees, credit, and collections, banking, bookkeeping Payroll, and computerized finance applications. Upon completion students should be able to manage financial aspects of medical offices. PREREQUISITE: as required by the college.

#### MAT125 – Lab Procedures I for the Medical Assistant - (3 cr. hrs.)

This course provides instruction in basic lab techniques used by the medical assistant. Topics include lab safety, quality control, collecting and processing specimens, performing selective diagnostic tests, such as a CBC, screening and follow-up of test results and OSHA/CLIA regulations. Upon completion, students should be able to perform basic lab tests/skills based on course topics. PREREQUISITE: as required by the college.

## MAT200- Management of Office Emergencies - (2 cr. hrs.)

This course is designed to instruct students in handling emergencies in the medical office. Emergencies presented will include cardiovascular emergencies, diabetic emergencies, seizures, syncope, hyperthermia and hypothermia, shock, musculoskeletal emergencies, and poisoning. Upon completion, students should be able to recognize emergency situations and take appropriate actions. PREREQUISITE: as required by the college.

#### MAT211 – Clinical Procedures II for the Medical Assistant - (3 cr. hrs.)

This course includes instruction in vital signs and special examination procedures. Emphasis is placed on interviewing skills, appropriate triage and preparing patients for diagnostic procedures. Upon completion, students should be able to assist with special procedures. PREREQUISITE: as required by the college.

#### MAT215 – Laboratory Procedures II for the Medical Assistant - (3 cr. hrs.)

This course instructs the student in the fundamental theory and lab application for the medical office. Microbiology, urinalysis, serology, blood chemistry, and venipuncture theory as well as venipuncture collection procedures are discussed and performed. Upon completion, students should be able to perform basic lab tests/skills on course topics. PREREQUISITE: as required by the college.

#### MAT216 – Medical Pharmacology for the Medical Office - (4 cr. hrs.)

This course teaches the commonly administered drugs used in the medical field including their classifications, actions, indications, contraindications, and side effects on the body. Correct demonstration of drug calculation, preparation, administration, and documentation are also taught. Upon completion, students should be able to demonstrate safe drug administration and recognize common medical classifications and their patient implications. PREREQUISITE: as required by the college.

#### MAT220 – Medical Office Insurance - (3 cr. hrs.)

In this course emphasis is placed on insurance procedures with advanced diagnostic and procedural coding in the outpatient facility. Study will include correct completion of insurance forms and coding. Upon completion, students should be able to demonstrate proficiency in coding for reimbursements. PREREQUISITE: as required by the college.

#### MAT227- Special Topics in Medical Assisting - (3cr. hrs.)

This course includes specialized study on current topics and issues in the field of medical assisting. Emphasis is placed on personal and occupational responsibilities, and developing problem-solving skills encountered in the medical office. Upon completion, students should be able to apply problem-solving skills to medical office situations. PREREQUISITE: as required by the college.

# MAT228 - Medical Assistant Review Course - (1 cr. hr.)

This course includes a general review of administrative and clinical functions performed in a medical office. The course will assist the student or graduate in preparing for national credentialing examination. PREREQUISITE: as required by the college.

#### MAT229 – Medical Assistant Practicum – (3 cr. hrs.)

This course is designed to provide the opportunity to apply clinical, laboratory, and administrative skills in a physician's office, clinic or outpatient facility. The student will gain experience in applying knowledge learned in the classroom in enhancing competence, in strengthening professional communications and interactions. Upon completion, students should be able to perform as an entry-level Medical Assistant. Content of this course is aligned with standards and guidelines from the American Association of Medical Assisting.

PREREQUISITE: as required by the college.

# MAT239 – Phlebotomy Preceptorship – (3 cr. hrs.)

This course is designed to provide the opportunity to apply phlebotomy techniques in the physician's clinic and hospital setting. Emphasis is placed on training individuals to properly collect and handle blood specimens for laboratory testing and to interact with health care personnel, patients, and the general public. Upon completion, students should be prepared for entry-level phlebotomy and to sit for the Phlebotomy Technician Examination (ASCP).

#### Nursing (NUR)

## **NUR112 Fundamental Concepts of Nursing - (7 credit hours)**

This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: healthcare delivery systems, professionalism, health promotion, psychosocial well-being, functional ability, gas exchange, safety, pharmacology, and coordinator/manager of care.

**Prerequisites**: Admission to the Program **Co-Requisites**: BIO201 Human Anatomy & Physiology I, MTH100 Intermediate College Algebra or higher level math

#### **NUR113 Nursing Concepts I- (8 credit hours)**

This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: coordinator/manager of care, perfusion, oxygenation, infection, inflammation, tissue integrity, nutrition, elimination, mobility/immobility, cellular regulation, acid/base balance, and fluid/electrolyte balance.

Prerequisites: NUR112 Fundamental Concepts of Nursing, BIO201 Human Anatomy & Physiology I, MTH100 Intermediate College Algebra (or higher level math)

## **NUR114 Nursing Concepts II - (8 credit hours)**

This course teaches foundational knowledge of nursing concepts and clinical decision making to provide evidence-based nursing care. Content includes but is not limited to: coordinator/manager of care,

sexuality, reproduction and childbearing, infection, inflammation, sensory perception, perfusion, cellular regulation, mood disorders and affect, renal fluid/electrolyte balance, and medical emergencies. Prerequisites: NUR113 Nursing Concepts I, ENG101 English Composition I, BIO202 Human Anatomy & Physiology II, PSY210 Human Growth and Development

## **NUR115 Evidence Based Clinical Reasoning - (2 credit hours)**

This course provides students with opportunities to collaborate with various members of the health care team in a family and community context. Students utilize clinical reasoning to assimilate concepts within the individual, health, and nursing domains.

Prerequisites: NUR113 Nursing Concepts I, ENG101 English Composition I, BIO202 Human Anatomy &

Physiology II, PSY210 Human Growth and Development

Co-Requisites: NUR114, SPH106 or SPH107

## **NUR211 Advanced Nursing Concepts - (7 credit hours)**

This course provides opportunities for students to integrate advanced nursing care concepts within a family and community context. Content includes but is not limited to: manager of care for advanced concepts in safety, fluid/electrolyte balance, cellular regulation, gas exchange, psychosocial well-being, growth and development, perfusion, and medical emergencies.

Prerequisites: NUR114, NUR115, SPH106/107

Corequisite: BIO220

#### **NUR221 Advanced Evidence Based Clinical Reasoning (7 credit hours)**

This course provides students with opportunities to demonstrate graduate competencies through didactic and preceptorship experiences necessary to transition to the profession of nursing. Content in nursing and health care domains includes management of care, professionalism, and healthcare delivery systems.

Prerequisites: BIO220, NUR211 Corequisite: Humanities elective

# CABINET AND FACULTY

#### President's Cabinet

President
Dean of Student Services
Dean of Instruction
Assistant Dean of Instruction
Director of Operations
Director of Public Relations
Director of Workforce Development
Director of Fiscal Affairs
Director of Institutional Effectiveness

# **FULL-TIME FACULTY**

<b>Advanced</b>	Manufa	cturing
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Electrical Technology (ELT)

Lardell Goodloe

Mechatronics (Industrial Maintenance)

Lardell Goodloe

Engineering Graphics Technology (DDT) Vacant

Machine Tool Technology (MTT)

Tyler Williams

Welding Technology (WDT)

Joseph Bevel

Kory Rafferty

**Applied Services Technologies** 

Automotive Technology (ASE) Mark Swaim

Salon and Spa Management TechnologyBen BattleCosmetology/Barbering/Esthetics/Nail CareKelly Williams

Natural Hair /Cosmetology Instructor Training (CIT)

Culinary Arts (CUA)/Hospitality Services Management Darrell Echols

**Heating and Air Conditioning Technology (ACR)**Casey Henry

**Business, Computer Science and Engineering Technologies** 

Accounting Technology (ACT) Gladys Ayokanmbi

Computer Information Systems Technology (CIS) Ronald Egson

**Deloris Smothers** 

**General and Developmental Education** 

Biology (BIO) Khalid Holmes

Humanities (HUM)/ (REL)/ (PHL) Russell Winn

**Developmental English (ENG)/Composition and Literature** Ed Forbes

Russell Winn

**Developmental Math/Mathematics (MTH)**Brandi Winchester

Joyce Livingston Rentz

**Health Sciences Technologies** 

Medical Assisting Technology (MAT)

Lauren Burrus

Nursing (NUR) Mattie Davis

Cynthia Davis Pamela Laut Susan Alamin Ngozi Ukeje