



# Central Carolina Works

## Career & College Promise

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### COMPLETE COURSE GUIDE

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2017-2018

MASTER EDITION

CENTRAL CAROLINA COMMUNITY COLLEGE

<http://www.cccc.edu/high-school/ccp/>

All information in this guide is subject to change.

Please view our website for the most current information.

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# CCP Overview

Career and College Promise provides seamless dual enrollment educational opportunities for eligible North Carolina high school students in order to accelerate completion of college certificates, diplomas, and associate degrees that lead to college transfer or provide entry-level job skills. North Carolina community colleges may offer the following Career and College Promise pathways aligned with the K-12 curriculum and career and college ready standards adopted by the State Board of Education:

1. College Transfer Pathway leading to a minimum of 30 hours of college transfer credit;
2. A Career and Technical Education Pathway leading to a certificate, diploma or degree;
3. A Cooperative Innovative High School Pathway

## College Transfer Pathway Eligibility Information

1. The Career and College Promise Pathway requires the completion of at least thirty semester hours of transfer courses, including English and mathematics and ACA 122 College Transfer Success.
2. To be eligible for enrollment, a high school student must meet the following criteria:
  - a. Be a high school junior or senior;
  - b. Have a weighted GPA of 3.0 on high school courses; and
  - c. Demonstrate college readiness on an assessment or placement test (See College Transfer Test Score Requirements on the following page). A student must demonstrate college readiness in English, reading and mathematics to be eligible for enrollment in a College Transfer Pathway.
3. To maintain eligibility for continued enrollment, a student must
  - a. Continue to make progress toward high school graduation, and
  - b. Maintain a 2.0 GPA in college coursework after completing two courses.
  - c. A student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.
4. A student must enroll in one College Transfer Pathway program of study and may not substitute courses in one program for courses in another
5. A student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.
6. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student who completes a College Transfer Pathway, while still enrolled in high school, may continue to earn college transfer credits leading to the completion of the Associate in Arts, Science or Engineering. The AA/AS/AE/AGE-Nursing may not be awarded prior to high school graduation verification.
7. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student may enroll in both a College Transfer Pathway program of study and a Career Technical Education program of study.

## College Transfer Test Score Requirements

To be eligible for enrollment in a College Transfer Pathway, students must demonstrate college readiness in English, reading, and mathematics on an approved test or tests. Eligibility may be demonstrated by achieving the required scores on a single test or by combining test scores from any of the approved assessments. For example, a student may combine a 19 on PLAN math with an 86 and an 80 on Accuplacer sentence skills and reading to demonstrate college readiness.

| Test                   | English/Writing Score                 | Reading Score | Math Score            |
|------------------------|---------------------------------------|---------------|-----------------------|
| PLAN (2015)            | 15                                    | 18            | 19                    |
| Pre-ACT (2016)         | 18                                    | 22            | 22                    |
| PSAT (2014 and prior)  | 45                                    | 47            | 47                    |
| PSAT (2015 and later)  | 26                                    | 26            | 24.5                  |
| SAT (Pre-March 2016)   | 500                                   | 500           | 500                   |
| SAT (Mar 2016 & later) | Evidence-Based Reading & Writing: 480 |               | 530                   |
| ACT                    | 18                                    | 22            | 22                    |
| Asset                  | 41                                    | 41            | 41 Num and 41 Alg     |
| Compass                | 70                                    | 81            | 47 Pre-Alg and 66 Alg |
| Accuplacer             | 86                                    | 80            | 55 Arith and 75 Alg   |
| NCDAP                  | Composite score: 151+                 |               | 7+ on DMA 010 - 060   |

Students who have a passing score in each of the three categories above will meet placement test requirements for ALL College Transfer and Career & Technical Education courses in the CCP program.

## Provisional Status

1. A high school junior or senior who does not demonstrate college-readiness on an approved assessment or placement test may be provisionally enrolled in a College Transfer Pathway. To qualify for Provisional Status, a student must meet the following criteria:
  - a. Have a cumulative weighted GPA of 3.5;
  - b. Have completed two years of high school English with a grade of 'C' or higher;
  - c. Have completed high school Algebra II or Math III (or a higher level math class) with a grade of 'C' or higher;
  - d. Obtain the written approval of the high school principal or his/her designee; and,
  - e. Obtain the written approval of the community college president or his/her designee.  
Career and College Promise 14-8 Revised 09/16/16
2. Students who meet all the requirements listed above may:
  - a. Enroll in English and/or mathematics courses in a college transfer pathway as provisional students without placement or other testing.
  - b. Register only for college mathematics (MAT) and college English (ENG) courses within the chosen Pathway.
  - c. Enroll in ENG 112 if they successfully complete ENG 111 with a 'C' or higher.
  - d. Enroll in MAT 172 if they successfully complete MAT 171 with a 'C' or higher and are in the Associate of Science pathway.
  - e. **Not** enroll in any additional courses in the pathway until they are no longer considered provisional. In order to no longer be considered provisional, the student must successfully complete the first mathematics and English course in the pathway with a grade of 'C' or higher.

# Career & Technical Education

## Pathway Eligibility Information

1. The Career and College Promise Career Technical Education Pathway for juniors and seniors leads to a certificate or diploma aligned with a high school Career Cluster.
2. To be eligible for enrollment, a high school student must meet the following criteria:
  - a. Be a high school junior or senior;
  - b. Have a weighted GPA of 3.0 on high school courses or have the recommendation of the high school principal or his/her designee; and
  - c. Have received career pathway information outlining program requirements for completion of the certificate or diploma.
3. High school counselors should consider students' PLAN scores in making pathway recommendations.
4. College Career Technical Education courses may be used to provide partial or full fulfillment of a four-unit career cluster. Where possible, students should be granted articulated credit based on the local or state North Carolina High School to Community College articulation agreement.
5. To maintain eligibility for continued enrollment, a student must
  - a. Continue to make progress toward high school graduation, and
  - b. Maintain a 2.0 in college coursework after completing two courses.
  - c. A student who falls below a 2.0 GPA after completing two college courses will be subject to the college's policy for satisfactory academic progress.
6. A student may be awarded a certificate or diploma prior to high school graduation. The AAS may not be awarded prior to high school graduation verification.
7. A student must enroll in one program of study and may not substitute courses in one program for courses in another. The student may change his or her program of study major with approval of the high school principal or his/her designee and the college's chief student development administrator.
8. A student may concurrently enroll in two CTE programs of study provided the exception has been approved by the college's Chief Academic Officer or his/her designee. With approval of the high school principal or his/her designee and the college's chief student development administrator, a student may enroll in both a College Transfer Pathway program of study and a Career Technical Education program of study.
9. A CTE student is not required to demonstrate college readiness on an assessment or placement test to be eligible for the program. However, some required courses within the program may have developmental course pre-requisites requirements which must be met when this is the case through the demonstration of college readiness on an approved assessment or placement test (See CTE Test Score Requirements). Students are encouraged to complete college readiness assessments prior to entry to the program. CCP students may not enroll in developmental courses. Career and College Promise 14-10 Revised 09/16/16
10. A student who completes the CTE certificate or diploma may continue in the same AAS as long as they are still eligible for CCP. In order to continue, the program code should be changed to reflect the AAS. The student type will remain CCPP and their student code will remain CTE.

## CTE Test Score Requirements

Nearly all students qualify for enrollment in a Career and Technical Education pathway. However, courses within each pathway may have specific testing requirements.

1. If a student has met the testing criteria set forth by the College Transfer Test Score Requirements, then he/she will also meet all testing criteria for the CTE requirements.
2. If a student has not met the testing criteria set forth by the College Transfer requirements, they will work with their CCW Advisor to determine testing pre-requisites according to the NCDAP or Accuplacer assessments.
3. Most CTE courses do not have a testing prerequisite. However, certain course pre-requisites exist and must be adhered to (i.e. ACC-120 is a prerequisite for ACC-121, but neither course requires tests scores).
4. Current CTE pathways that can be completed **without** any testing whatsoever include:
  - a. Accounting (D25100CW)
  - b. Automotive Restoration (D60140CW)
  - c. Automotive Systems (D60160CW)
  - d. Barbering (C55110CP)
  - e. Broadcasting & Production Technology (D30120CW)
  - f. Business Administration (D25120CW)
  - g. Computer-Integrated Machining (D50210CW)
  - h. Cosmetology (C55140CP)
  - i. Criminal Justice Technology (D55180CW)
  - j. Culinary Arts (C55150CP)
  - k. Dental Assisting (C45240CW)
  - l. Health & Fitness Science (C45630CW)
  - m. Health Information Technology (C45360CW)
  - n. Human Services Technology (D45380CW)
  - o. Industrial Systems Technology (D50240CW)
  - p. Library Information Technology (D55310CW)
  - q. Manicuring/Nail Technology (C55400CW)
  - r. Medical Office Administration (D25310CW)
  - s. Nurse Aide (D45970CW)
  - t. Sustainability Technologies (D40370CW)
  - u. Sustainable Agriculture (D15410CW)
  - v. Telecommunications Installation & Maintenance (D50380CW)
  - w. Veterinary Medical Technology (C45780CW)
  - x. Welding Technology (D50420CW)

# Cooperative Innovative High School Pathway

## Eligibility Information

1. Cooperative Innovative High School Programs are located on college campuses, enroll 100 or fewer students per grade level, and provide opportunities for students to complete an associate degree program or earn up to two years of college credit within five years are defined as Cooperative Innovative High School Programs.
2. Eligibility requirements for Cooperative Innovative High School Programs are established jointly by local boards of education and local boards of trustees in accordance with G.S. 115C-238.50. The AA/AS/AE/AFA/AAS may not be awarded prior to high school graduation verification. A student may be awarded a certificate or diploma prior to high school graduation.
3. The State Board of Community Colleges may waive the requirement that a Cooperative Innovative High School Program is located on the community college campus.

Central Carolina Community College proudly partners with the Local Education Agencies in our service area. We currently offer two options for Cooperative Innovative High Schools, with a third in the works:

**Chatham County:** The Chatham School of Science and Engineering

Principal: Mr. Bobby Dixon

[bdixon@chatham.k12.nc.us](mailto:bdixon@chatham.k12.nc.us)

919-663-5899

<https://sites.google.com/a/chatham.k12.nc.us/chatham-county-school-of-science-engineering/home>

**Harnett County:** Harnett County Early College (opening Fall 2017, pending state approval)

**Lee County:** Lee Early College

Principal: Ms. Kisha Derr

[kderr.lec@lee.k12.nc.us](mailto:kderr.lec@lee.k12.nc.us)

919-888-4502

<http://www.lee.k12.nc.us/leearly>

Each Early College has its own application process and eligibility criteria. Please reach out to the school directly if you would like more information.

**More information about the Career & College Promise program can be located on the North Carolina Community College System website:**

**<http://www.nccommunitycolleges.edu/academic-programs/career-college-promise>**



# Grading Policy

Students who elect to participate in the Career & College Promise program will be viewed as college students at Central Carolina Community College, with the same rights, responsibilities, and expectations as any other CCCC student. As such, final grades for all CCCC classes will be reported by the program director to the high school in letter format: A, B, C, D, F, W, WF. Letter grades only will be issued for all official CCCC documentation (i.e. Aviso, WebAdvisor, transcript, etc.). Each school system (Chatham, Harnett, and Lee County Schools) will determine its own policy for reporting this letter grade on the student's high school transcript and report card.

More information about CCCC's grading and other policies can be found online in our Student Handbook: <http://www.cccc.edu/handbook/>

# Textbook/Fee Policy

Although course tuition is provided at no charge through the Career and College Promise program, textbooks and course fees are not provided by Central Carolina Community College.

However, it has been common practice in Chatham, Harnett, and Lee County Schools that textbooks and course fees are provided by the school system for students during the fall and spring semesters. These textbooks are on loan to the students and should be returned to the high school at the end of each semester. Summer course costs are generally the responsibility of the student, with the exception of students enrolled in one of the Early College programs.

**This practice is subject to change at any time. Students are encouraged to check with their high school for the most up-to-date information regarding textbooks and course fees.**

Private, home school, and students who attend public high schools outside CCCC's three-county service area will be responsible for providing their own textbooks and other course materials.

# Graduation Policy

A College Transfer Pathway (CTP) student may complete the AA/AS/AE/AND pathway and then continue towards completion of the AA/AS/AE/AGE-Nursing. The AA/AS/AE/AGE-Nursing may not be awarded prior to high school graduation verification.

A Career & Technical Education (CTE) Pathway student may be awarded a certificate or diploma prior to high school graduation. A student may complete the CTE certificate or diploma and then continue towards completion of the AAS. The AAS may not be awarded prior to high school graduation verification.

# Meet Your Advisor/Contact Us

In Fall 2014, the Central Carolina Works program was implemented in each of our service area public high schools. The CCW Advisor at the school assists with career exploration, course selection, and more!

## Chatham County

Chatham Central High School

Advisor: Kelly Dorman

[kdorman@cccc.edu](mailto:kdorman@cccc.edu)

919-837-2251

Northwood High School

Advisor: April Hammonds

[ahammonds@cccc.edu](mailto:ahammonds@cccc.edu)

919-542-4181

Jordan-Matthews High School

Advisor: Steve Heesacker (Chatham County Lead)

[dheesacker@cccc.edu](mailto:dheesacker@cccc.edu)

919-742-2916

## Harnett County

Harnett Central High School

Advisor: Megan Ferguson

[mferguson@cccc.edu](mailto:mferguson@cccc.edu)

919-639-6161

Triton High School

Advisor: Tracy Autry (Harnett County Lead)

[tautry@cccc.edu](mailto:tautry@cccc.edu)

910-897-8123

Overhills High School

Advisor: Megan Erstad

[merstad@cccc.edu](mailto:merstad@cccc.edu)

910-436-1436

Western Harnett High School

Advisor: Ben Thomas

[bthomas@cccc.edu](mailto:bthomas@cccc.edu)

919-499-5597

## Lee County

Lee County High School

Advisor: Cara Simmons

[csimmons@cccc.edu](mailto:csimmons@cccc.edu)

919-776-7541

Southern Lee High School

Advisor: Lara Abels (Lee County Lead)

[labels@cccc.edu](mailto:labels@cccc.edu)

919-718-2400

## Program Administration

Central Carolina Community College

Director of Secondary Partnerships: Mary Schmid

[mschmid@cccc.edu](mailto:mschmid@cccc.edu)

919-718-7370

For additional contact information, please visit our website: <http://www.cccc.edu/high-school/ccp/>  
Disclaimer: Information in this guide is subject to change. Our website has the most current information.

# Pathway Breakdown by County

| <b>College Transfer Pathways</b>                | <b>Chatham</b> | <b>Harnett</b> | <b>Lee</b> |
|---|----------------|----------------|------------|
| Pre-Associate in Arts (P1012C)                  | X              | X              | X          |
| Pre-Associate in Engineering (P1052C)           | X              | X              | X          |
| Pre-Associate in Science (P1042C)               | X              | X              | X          |
| Associate Degree Nursing (P1032C)               | X              | X              | X          |
| <b>CTE Certificate Pathways</b>                 | <b>Chatham</b> | <b>Harnett</b> | <b>Lee</b> |
| Barbering (C55110CP)                            |                | X              |            |
| Cosmetology (C55140CP)                          |                | X              | X          |
| Culinary Arts (C55150CP)                        | X              | X              | X          |
| Dental Assisting (C45240CW)                     | X              | X              | X          |
| Health and Fitness Science (C45630CW)           |                |                | X          |
| Health Information Technology (C45360CW)        | X              | X              | X          |
| Infant/Toddler Care (C55290CP)                  | X              | X              | X          |
| Manicuring/Nail Technology (C55400CW)           | X              | X              |            |
| Veterinary Medical Technology (C45780CW)        | X              | X              | X          |
| <b>CTE Diploma Pathways</b>                     | <b>Chatham</b> | <b>Harnett</b> | <b>Lee</b> |
| Accounting (D25100CW)                           | X              | X              | X          |
| Automotive Restoration Technology (D60140CW)    |                | X              | X          |
| Automotive Systems Technology (D60160CW)        | X              |                |            |
| Broadcasting & Production Technology (D30120CW) |                | X              | X          |
| Business Administration (D25120CW)              | X              | X              | X          |
| Computer-Aided Drafting Technology (D50150CW)   |                |                | X          |
| Computer-Integrated Machining (D50210CW)        |                | X              |            |
| Criminal Justice Technology (C55180CW)          | X              | X              | X          |
| Early Childhood Education (D55220CW)            | X              | X              | X          |
| Electronics Engineering Technology (D40200CW)   |                | X              | X          |
| Human Services Technology (D45380CW)            | X              | X              | X          |
| Industrial Systems Technology (D50240CW)        | X              |                | X          |
| Information Technology (D25590CW)               |                |                | X          |
| Laser and Photonics Technology (D40280CP)       |                | X              | X          |
| Library and Information Technology (D55310CW)   | X              | X              | X          |
| Medical Assisting (D45400CW)                    | X              | X              | X          |
| Medical Office Administration (D25310CW)        | X              | X              | X          |
| Motorcycle Mechanics (D60260CW)                 |                | X              | X          |
| Nurse Aide (D45970CW)                           | X              | X              | X          |
| Sustainability Technologies (D40370CW)          | X              |                |            |
| Sustainable Agriculture (D15410CW)              | X              |                |            |
| Welding Technology (D50420CW)                   |                | X              |            |

# College Transfer Pathways

The courses offered in the Career & College Promise College Transfer Pathways are part of the Comprehensive Articulation Agreement (CAA), which is a statewide agreement governing the transfer of credits between NC community colleges and NC public universities that has as its objective the smooth transfer of credit. All courses, with the exception of the optional foreign language classes, are part of the Universal General Education Transfer Component (UGETC) list. If a student obtains a C or above in a UGETC course, then transferability of that specific course is guaranteed, regardless of whether or not the student completes the transfer degree.

## **Pre-Associate in Arts (32-41\* SHC)**

The CCP College Transfer Pathway Leading to the Associate in Arts is designed for high school juniors and seniors who wish to begin study toward the Associate in Arts degree and a baccalaureate degree in a non-STEM major.

## **Pre-Associate in Engineering (34-50\*^ SHC)**

The CCP College Transfer Pathway Leading to the Associate in Engineering is designed for high school juniors and seniors who wish to begin study toward the Associate in Engineering degree and a baccalaureate degree in a STEM or technical major.

### **^ PREREQUISITE GENERAL EDUCATION HOURS (0-8 SHC)**

Students in the Pre-AE pathway who do not place directly into MAT 271 must complete MAT 171 and MAT 172 prior to enrolling in MAT 271 Calculus I.

## **Pre-Associate in Science (35-43\* SHC)**

The CCP College Transfer Pathway Leading to the Associate in Science is designed for high school juniors and seniors who wish to begin study toward the Associate in Science degree and a baccalaureate degree in a STEM or technical major.

### **\*OPTIONAL GENERAL EDUCATION HOURS (0-8 SHC)**

A student may take up to 8 SHC of foreign language courses and accompanying labs, in a single language, designated as General Education in the CAA as a part of this pathway. These courses are not a part of the Universal General Education Transfer Component. Students who complete these courses with a grade of "C" or better will receive transfer credit. The receiving university will determine whether the courses will count as general education, pre-major, or elective credit.

Central Carolina Community College offers the following options for foreign language:

- \_\_\_ CHI 111 Elementary Chinese I
- \_\_\_ CHI 112 Elementary Chinese II
- \_\_\_ SPA 111 Elementary Spanish I
- \_\_\_ SPA 112 Elementary Spanish II

## **Associate Degree Nursing (58-60 SHC)**

The CCP ADN Pathway is designed for high school juniors and seniors who wish to begin their educational studies toward the Associate in Nursing degree and a Baccalaureate degree in Nursing. The pathway is based on Blocks 1 through 3 of the Uniform Articulation Agreement (UAA) between the University of North Carolina's Registered Nurse to Bachelor of Science in Nursing programs and the North Carolina Community College Associate Degree Nursing Programs which was approved by the State Board of Community Colleges and the UNC Board of Governors in February 2015.

A student who completed an AAS in Nursing with a GPA of at least 2.0 and a grade of C or better in the RN to BSN AA courses listed below and who holds a current unrestricted license as a Registered Nurse in North Carolina will have fulfilled the UNC institutions lower-division general education requirements as well as nursing program entry requirements. However, because nursing program admissions are competitive, no student is guaranteed admission to the program of his or her choice.

For additional information about Blocks 2 and 3 of the Five Block Degree Plan located within the UAA between the University of North Carolina RN to BSN please visit:

**<http://www.nccommunitycolleges.edu/academic-programs/college-transferarticulation-agreements/uniform-articulation-agreement-rn-bsn>**

# Pre-Associate in Arts (P1012C)

## **English Composition (6 SHC) (two required courses)**

- ENG 111 Writing & Inquiry (3 SHC)
- ENG 112 Writing/Research in the Disciplines (3 SHC)

## **Communication/Humanities/Fine Arts (9 SHC) (select three courses from at least two different disciplines)**

- COM 231 Public Speaking (3 SHC)
- ART 111 Art Appreciation (3 SHC)
- ART 114 Art History Survey I (3 SHC)
- ART 115 Art History Survey II (3 SHC)
- ENG 231 American Literature I (3 SHC)
- ENG 232 American Literature II (3 SHC)
- ENG 241 British Literature I (3 SHC)
- ENG 242 British Literature II (3 SHC)
- MUS 110 Music Appreciation (3 SHC)
- MUS 112 Introduction to Jazz (3 SHC)
- PHI 215 Philosophical Issues (3 SHC)
- PHI 240 Introduction to Ethics (3 SHC)

## **Social/Behavioral Sciences (9 SHC) (select three courses from at least two different disciplines)**

- ECO 251 Principles of Microeconomics (3 SHC)
- ECO 252 Principles of Macroeconomics (3 SHC)
- HIS 111 World Civilizations I (3 SHC)
- HIS 112 World Civilizations II (3 SHC)
- HIS 131 American History I (3 SHC)
- HIS 132 American History II (3 SHC)
- POL 120 American Government (3 SHC)
- PSY 150 General Psychology (3 SHC)
- SOC 210 Introduction to Sociology (3 SHC)

## **Math (3-4 SHC) (select one required course)**

- MAT 143 Quantitative Literacy (3 SHC)
- MAT 152 Statistical Methods I (4 SHC)
- MAT 171 Precalculus Algebra (4 SHC)

## **Natural Sciences (4 SHC) (select one required course)**

- BIO 110 Principles of Biology (4 SHC)
- BIO 111 General Biology I (4 SHC)
- CHM 151 General Chemistry I (4 SHC)
- GEL 111 Introductory Geology (4 SHC)
- PHY 110 Conceptual Physics (3 SHC) and PHY 110A Conceptual Physics Lab (1 SHC)

## **Academic Transition (1 SHC) (one required course)**

- ACA 122 College Transfer Success (1 SHC)

**Total Semester Hours Credit Required: 32-33**

# Pre-Associate in Engineering (P1052C)

## **English Composition (6 SHC) (two required courses)**

- ENG 111 Writing & Inquiry (3 SHC)
- ENG 112 Writing/Research in the Disciplines (3 SHC)

## **Communication/Humanities/Fine Arts (3 SHC) (select one required course)**

- COM 231 Public Speaking (3 SHC)
- ART 111 Art Appreciation (3 SHC)
- ART 114 Art History Survey I (3 SHC)
- ART 115 Art History Survey II (3 SHC)
- ENG 231 American Literature I (3 SHC)
- ENG 232 American Literature II (3 SHC)
- ENG 241 British Literature I (3 SHC)
- ENG 242 British Literature II (3 SHC)
- MUS 110 Music Appreciation (3 SHC)
- MUS 112 Introduction to Jazz (3 SHC)
- PHI 215 Philosophical Issues (3 SHC)
- PHI 240 Introduction to Ethics (3 SHC)

## **Social/Behavioral Sciences (3 SHC) (one required course)**

- ECO 251 Principles of Microeconomics (3 SHC)

## **Math (8 SHC) (one required course) (two required courses)**

- MAT 271 Calculus I (4 SHC)
- MAT 272 Calculus II (4 SHC)

## **Natural Science (8 SHC) (select two required courses)**

- CHM 151 General Chemistry I (4 SHC)
- PHY 251 General Physics I (4 SHC)
- PHY 252 General Physics II (4 SHC)

## **Other Required Hours (5 SHC) (two required courses)**

- DFT 170 Engineering Graphics (3 SHC)
- EGR 150 Introduction to Engineering (2 SHC)

## **Academic Transition (1 SHC) (one required course)**

- ACA 122 College Transfer Success (1 SHC)

## **Total Semester Hours Credit Required: 34\***

\*Students needing to take MAT-171 and 172 prior to enrolling in MAT-271 will have 42 hours required.

# Pre-Associate in Science (P1042C)

## English Composition (6 SHC) (two required courses)

- ENG 111 Writing & Inquiry (3 SHC)
- ENG 112 Writing/Research in the Disciplines (3 SHC)

## Communication/Humanities/Fine Arts (6 SHC) (select two courses from at least two different disciplines)

- COM 231 Public Speaking (3 SHC)
- ART 111 Art Appreciation (3 SHC)
- ART 114 Art History Survey I (3 SHC)
- ART 115 Art History Survey II (3 SHC)
- ENG 231 American Literature I (3 SHC)
- ENG 232 American Literature II (3 SHC)
- ENG 241 British Literature I (3 SHC)
- ENG 242 British Literature II (3 SHC)
- MUS 110 Music Appreciation (3 SHC)
- MUS 112 Introduction to Jazz (3 SHC)
- PHI 215 Philosophical Issues (3 SHC)
- PHI 240 Introduction to Ethics (3 SHC)

## Social/Behavioral Sciences (6 SHC) (select two courses from at least two different disciplines)

- ECO 251 Principles of Microeconomics (3 SHC)
- ECO 252 Principles of Macroeconomics (3 SHC)
- HIS 111 World Civilizations I (3 SHC)
- HIS 112 World Civilizations II (3 SHC)
- HIS 131 American History I (3 SHC)
- HIS 132 American History II (3 SHC)
- POL 120 American Government (3 SHC)
- PSY 150 General Psychology (3 SHC)
- SOC 210 Introduction to Sociology (3 SHC)

## Math (8 SHC) (one required course) (select two required courses)

- MAT 171 Precalculus Algebra (4 SHC)
- MAT 172 Precalculus Trigonometry (4 SHC)
- MAT 263 Brief Calculus (4 SHC)
- MAT 271 Calculus I (4 SHC)
- MAT 272 Calculus II (4 SHC)

## Natural Sciences (8 SHC) (select two required courses)

- BIO 110 Principles of Biology (4 SHC)
- BIO 111 General Biology I (4 SHC)      **and**      BIO 112 General Biology II (4 SHC)
- CHM 151 General Chemistry I (4 SHC)      **and**      CHM 152 General Chemistry II (4 SHC)
- GEL 111 Introductory Geology (4 SHC)
- PHY 110 Conceptual Physics (3 SHC)      **and**      PHY 110A Conceptual Physics Lab (1 SHC)
- PHY 151 College Physics I (4 SHC)      **and**      PHY 152 College Physics II (4 SHC)
- PHY 251 General Physics I (4 SHC)      **and**      PHY 252 General Physics II (4 SHC)

## Academic Transition (1 SHC) (one required course)

- ACA 122 College Transfer Success (1 SHC)

**Total Semester Hours Credit Required: 35**



# Associate Degree Nursing (P1032C)

## **English Composition (6 SHC) (select two courses, including ENG-111)**

\_\_\_ ENG 111 Writing & Inquiry (3 SHC)

\_\_\_ ENG 112 Writing/Research in the Disc. (3 SHC)    or    \_\_\_ ENG 114 Prof Research & Reporting (3 SHC)

## **Humanities/Fine Arts (3 SHC) (select one course)**

\_\_\_ ART 111 Art Appreciation (3 SHC)

\_\_\_ ART 114 Art History Survey I (3 SHC)

\_\_\_ ART 115 Art History Survey II (3 SHC)

\_\_\_ HUM 115 Critical Thinking (3 SHC)

\_\_\_ MUS 110 Music Appreciation (3 SHC)

\_\_\_ MUS 112 Introduction to Jazz (3 SHC)

\_\_\_ PHI 215 Philosophical Issues (3 SHC)

\_\_\_ PHI 240 Introduction to Ethics (3 SHC)

## **Social/Behavioral Sciences (6 SHC) (the following courses are required)**

\_\_\_ PSY 150 General Psychology (3 SHC)

\_\_\_ PSY 241 Developmental Psychology (3 SHC)

## **Natural Sciences (8 SHC) (select one sequence)**

\_\_\_ BIO 165 Anatomy and Physiology I (4 SHC) and BIO 166 Anatomy & Physiology II (4 SHC)

\_\_\_ BIO 168 Anatomy and Physiology I (4 SHC) and BIO 169 Anatomy & Physiology II (4 SHC)

## **Other Required Hours (1 SHC)**

\_\_\_ ACA 122 College Transfer Success (1 SHC)

**Total Semester Hours Credit Required: 24**

# CTE Pathways

## Accounting

Diploma – D25100CW

Available in:  Chatham  Harnett  Lee

### **Pathway Courses:**

| Course                  | Title                               | College Cred | High School Cred |
|-------------------------|-------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success            | 1            | 1                |
| ACC-120*                | Principles of Financial Accounting  | 4            | 1                |
| ACC-121*                | Principles of Managerial Accounting | 4            | 1                |
| ACC-122                 | Principles of Accounting II         | 3            | 1                |
| ACC-129                 | Individual Income Taxes             | 3            | 1                |
| ACC-130                 | Business Income Taxes               | 3            | 1                |
| ACC-140                 | Payroll Accounting                  | 2            | 1                |
| ACC-150                 | Accounting Software Applications    | 2            | 1                |
| ART-111*                | Art Appreciation                    | 3            | 1                |
| BUS-110*                | Introduction to Business            | 3            | 1                |
| BUS-115*                | Business Law I                      | 3            | 1                |
| BUS-125                 | Personal Finance                    | 3            | 1                |
| CIS-110*                | Introduction to Computers           | 3            | 1                |
| COM-231*                | Public Speaking                     | 3            | 1                |
| ECO-251*                | Principles of Microeconomics        | 3            | 1                |
| <b>15 total courses</b> |                                     | <b>43</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

### **Suggested Sequencing:**

Fall: ACC-120, ACC-129, BUS-125 = 10 credit hours (online)

Spring: ACC-122, ACC-130 = 6 credit hours (online)

# Automotive Restoration Technology

Diploma – D60140CW

Available in: \_\_\_ Chatham \_X\_ Harnett \_X\_ Lee

## Pathway Courses:

| Course                  | Title                            | College Cred | High School Cred |
|-------------------------|----------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success         | 1            | 1                |
| ARS-112                 | Auto Restoration Research        | 3            | 1                |
| ARS-113                 | Automobile Upholstery            | 4            | 1                |
| ARS-114                 | Restoration Skills I             | 4            | 1                |
| ARS-117                 | Automotive Engines               | 2            | 1                |
| ARS-118                 | Wood & Metal Restoration         | 3            | 1                |
| ARS-131                 | Chassis and Drive Trains         | 3            | 1                |
| AUB-111                 | Painting & Refinishing I         | 4            | 1                |
| AUB-112                 | Painting & Refinishing II        | 4            | 1                |
| COM-231*                | Public Speaking                  | 3            | 1                |
| HUM-110*                | Technology and Society           | 3            | 1                |
| TRN-110                 | Intro to Transportation Tech     | 2            | 1                |
| TRN-120                 | Basic Transportation Electricity | 5            | 2                |
| TRN-180                 | Basic Welding for Transportation | 3            | 1                |
| <b>14 total courses</b> |                                  | <b>44</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

## Suggested Sequencing:

Fall: AUB-111 = 4 credit hours (4<sup>th</sup> block in high school schedule)

Spring: AUB-112 = 4 credit hours (4<sup>th</sup> block in high school schedule)

# Automotive Systems Technology

## Diploma – D60160CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                              | College Cred | High School Cred |
|-------------------------|------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success           | 1            | 1                |
| AUT-114                 | Safety and Emissions               | 2            | 1                |
| AUT-114A                | Safety and Emissions Lab           | 1            | 0                |
| AUT-141                 | Suspension & Steering Systems      | 3            | 1                |
| AUT-141A                | Suspension & Steering Systems Lab  | 1            | 0                |
| AUT-151                 | Brake Systems                      | 3            | 1                |
| AUT-151A                | Brake Systems Lab                  | 1            | 0                |
| AUT-163                 | Advanced Auto Electricity          | 3            | 1                |
| AUT-163A                | Advanced Auto Electricity Lab      | 1            | 0                |
| AUT-181                 | Engine Performance I               | 3            | 1                |
| AUT-181A                | Engine Performance I Lab           | 1            | 0                |
| AUT-183                 | Engine Performance II              | 4            | 1                |
| CIS-111                 | Basic PC Literacy                  | 2            | 1                |
| COM-231*                | Public Speaking                    | 3            | 1                |
| HUM-110*                | Technology and Society             | 3            | 1                |
| TRN-110                 | Intro to Transportation Tech       | 2            | 1                |
| TRN-120                 | Basic Transportation Electricity   | 5            | 2                |
| TRN-140                 | Transportation Climate Control     | 2            | 1                |
| TRN-140A                | Transportation Climate Control Lab | 2            | 0                |
| <b>19 total courses</b> |                                    | <b>43</b>    | <b>14</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall Year One: TRN-120 = 5 credit hours (1<sup>st</sup> or 2<sup>nd</sup> block in high school schedule)

Spring Year One: AUT-151/A = 4 credit hours (1<sup>st</sup> or 2<sup>nd</sup> block in high school schedule)

Fall Year Two: AUT-163/A = 4 credit hours (3<sup>rd</sup> and 4<sup>th</sup> block in high school schedule)

Spring Year Two: AUT-181/A = 4 credit hours (3<sup>rd</sup> and 4<sup>th</sup> block in high school schedule)

# Barbering

Certificate – C55110CP

Available in: \_\_\_ Chatham X Harnett \_\_\_ Lee

## Pathway Courses:

| Course                 | Title                 | College Cred | High School Cred |
|------------------------|-----------------------|--------------|------------------|
| BAR-111                | Barbering Concepts I  | 4            | 1                |
| BAR-112                | Barbering Clinic I    | 8            | 1                |
| BAR-113                | Barbering Concepts II | 4            | 1                |
| BAR-114                | Barbering Clinic II   | 8            | 1                |
| <b>4 total courses</b> |                       | <b>24</b>    | <b>4</b>         |

## Suggested Sequencing:

Fall Year One: BAR-111A, BAR-112A = 6 credit hours (4<sup>th</sup> block in high school schedule)

Spring Year One: BAR-111B, BAR-112B = 6 credit hours (4<sup>th</sup> block in high school schedule)

Fall Year Two: BAR-113A, BAR-114A = 6 credit hours (4<sup>th</sup> block in high school schedule)

Spring Year Two: BAR-113B, BAR-114B = 6 credit hours (4<sup>th</sup> block in high school schedule)

# Broadcasting and Production Technology

Diploma – D30120CW

Available in: \_\_\_ Chatham X Harnett \_\_\_ Lee

## Pathway Courses:

| Course                  | Title                     | College Cred | High School Cred |
|-------------------------|---------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success  | 1            | 1                |
| BPT-110                 | Intro to Broadcasting     | 3            | 1                |
| BPT-111                 | Broadcast Law & Ethics    | 3            | 1                |
| BPT-112                 | Broadcast Writing         | 4            | 1                |
| BPT-113                 | Broadcast Sales           | 3            | 1                |
| BPT-121                 | Broadcast Speech I        | 3            | 1                |
| BPT-131                 | Audio/Radio Production I  | 4            | 1                |
| BPT-135                 | Radio Performance I       | 2            | 1                |
| BPT-215                 | Broadcast Programming     | 3            | TBD              |
| BPT-231                 | Video/TV Production I     | 4            | 1                |
| BPT-232                 | Video/TV Production II    | 4            | 1                |
| COM-231*                | Public Speaking           | 3            | 1                |
| SOC-210*                | Introduction to Sociology | 3            | 1                |
| <b>13 total courses</b> |                           | <b>40</b>    | <b>12</b>        |

\*Provides one extra quality point when calculating high school GPA.

## Suggested Sequencing:

### **Harnett County Option:**

Fall: BPT-131A, BPT-135A = 3 credit hours (4<sup>th</sup> block in high school schedule)

Spring: BPT-131B, BPT-135B = 3 credit hours (4<sup>th</sup> block in high school schedule)

# Business Administration

## Diploma – D25120CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                         | College Cred | High School Cred |
|-------------------------|-------------------------------|--------------|------------------|
| ACC-115                 | College Accounting            | 4            | 1                |
| BUS-110*                | Introduction to Business      | 3            | 1                |
| BUS-115*                | Business Law I                | 3            | 1                |
| BUS-137*                | Principles of Management      | 3            | 1                |
| BUS-151                 | People Skills                 | 3            | 1                |
| BUS-153                 | Human Resources Management    | 3            | 1                |
| BUS-280                 | REAL Small Business           | 4            | 1                |
| CIS-110*                | Introduction to Computers     | 3            | 1                |
| COM-231*                | Public Speaking               | 3            | 1                |
| ECO-251*                | Principles of Microeconomics  | 3            | 1                |
| MKT-120                 | Principles of Marketing       | 3            | 1                |
| MKT-220                 | Advertising & Sales Promotion | 3            | 1                |
| MKT-223                 | Customer Service              | 3            | 1                |
| MKT-232                 | Social Media Marketing        | 4            | 1                |
| WEB-214                 | Social Media                  | 3            | 1                |
| <b>15 total courses</b> |                               | <b>48</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall: BUS-110, BUS-115 = 6 credit hours (online in high school schedule)

Spring: BUS-137, MKT-120 = 6 credit hours (online in high school schedule)

# Computer-Aided Drafting Technology

Diploma – D50150CW

Available in: \_\_\_ Chatham \_\_\_ Harnett \_X\_ Lee

This program has courses that require test scores.

## **Pathway Courses:**

| Course                  | Title                                 | College Cred | High School Cred |
|-------------------------|---------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success              | 1            | 1                |
| BPR-111                 | Print Reading                         | 2            | 1                |
| BPR-121                 | Blueprint Reading-Mech                | 2            | 1                |
| CIS-110*                | Introduction to Computers             | 3            | 1                |
| DDF-211                 | Design Process I                      | 4            | 1                |
| DFT-111                 | Technical Drafting I                  | 2            | 1                |
| DFT-151                 | CAD I                                 | 3            | 1                |
| DFT-152                 | CAD II                                | 3            | 1                |
| DFT-153                 | CAD III                               | 3            | 1                |
| DFT-154                 | Intro to Solid Modeling               | 3            | 1                |
| DFT-211                 | Gears, Cams, & Pulleys                | 2            | 1                |
| DFT-254                 | Intermediate Solid Modeling/Rendering | 3            | 1                |
| ENG-111*^               | Writing & Inquiry                     | 3            | 1                |
| MAT-121^                | Algebra/Trigonometry I                | 3            | 1                |
| MEC-161                 | Manufacturing Processes I             | 3            | 1                |
| MEC-161A                | Manufacturing Processes I Lab         | 1            | 0                |
| <b>16 total courses</b> |                                       | <b>41</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## **Suggested Sequencing:**

Fall: BPR-111, DFT-111, DFT-151 = 7 credit hours (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> block in high school schedule)

Spring: BPR-121, CIS-110, DFT-153 = 8 credit hours (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> block in high school schedule)



# Computer-Integrated Machining

Diploma – D50120CW

Available in: \_\_\_ Chatham X Harnett \_\_\_ Lee

## Pathway Courses:

| Course                  | Title                     | College Cred | High School Cred |
|-------------------------|---------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success  | 1            | 1                |
| BPR-111                 | Print Reading             | 2            | 1                |
| BPR-121                 | Blueprint Reading- Mech   | 2            | 1                |
| CIS-111                 | Basic PC Literacy         | 2            | 1                |
| COM-231*                | Public Speaking           | 3            | 1                |
| HUM-110*                | Technology and Society    | 3            | 1                |
| MAC-111                 | Machining Technology I    | 6            | 2                |
| MAC-112                 | Machining Technology II   | 6            | 2                |
| MAC-113                 | Machining Technology III  | 6            | 2                |
| MAC-124                 | CNC Milling               | 2            | 1                |
| MAC-151                 | Machining Calculations    | 2            | 1                |
| MAC-171                 | Measure/Material & Safety | 1            | 1                |
| MEC-142                 | Physical Metallurgy       | 2            | 1                |
| <b>13 total courses</b> |                           | <b>38</b>    | <b>16</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## Suggested Sequencing:

### **Harnett Apprenticeship:**

Summer: MAC-111A = 3 credit hours

Fall: MAC-111B, BPR-111, MEC-142 = 7 credit hours (2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> block in high school schedule)

Spring: MAC-171, BPR-121, MAC-124, MAC-151 = 7 credit hours (2<sup>nd</sup>, 3<sup>rd</sup> & 4<sup>th</sup> block in high school schedule)

# Cosmetology

## Certificate – C55140CP

Available in: \_\_\_ Chatham \_X\_ Harnett \_X\_ Lee

### Pathway Courses:

| Course                 | Title                      | College Cred | High School Cred |
|------------------------|----------------------------|--------------|------------------|
| COS-111                | Cosmetology Concepts I     | 4            | 1                |
| COS-112                | Salon I                    | 8            | 3                |
| COS-113                | Cosmetology Concepts II    | 4            | 1                |
| COS-114                | Salon II                   | 8            | 3                |
| COS-115                | Cosmetology Concepts III   | 4            | 1                |
| COS-116                | Salon III                  | 4            | 1                |
| COS-223                | Contemporary Hair Coloring | 2            | 1                |
| <b>7 total courses</b> |                            | <b>34</b>    | <b>11</b>        |

### Suggested Sequencing:

#### **Lee County Option:**

Fall Year One: COS-111A, COS-112A = 6 credit hours (3<sup>rd</sup> and 4<sup>th</sup> blocks in high school schedule)

Spring Year One: COS-111B, COS-112B = 6 credit hours (3<sup>rd</sup> and 4<sup>th</sup> blocks in high school schedule)

#### **Harnett County Option:**

Fall Year One: COS-111A, COS-112A = 6 credit hours (4<sup>th</sup> block in high school schedule)

Spring Year One: COS-111B, COS-112B = 6 credit hours (4<sup>th</sup> block in high school schedule)

Fall Year Two: COS-113A, COS-114A = 6 credit hours (4<sup>th</sup> block in high school schedule)

Spring Year Two: COS-113B, COS-114B = 6 credit hours (4<sup>th</sup> block in high school schedule)

# Criminal Justice Technology

Diploma – D55180CW

Available in:  Chatham  Harnett  Lee

## Pathway Courses:

| Course                  | Title                            | College Cred | High School Cred |
|-------------------------|----------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success         | 1            | 1                |
| CJC-111*                | Introduction to Criminal Justice | 3            | 1                |
| CJC-112                 | Criminology                      | 3            | 1                |
| CJC-113                 | Juvenile Justice                 | 3            | 1                |
| CJC-131                 | Criminal Law                     | 3            | 1                |
| CJC-132                 | Court Procedure & Evidence       | 3            | 1                |
| CJC-141                 | Corrections                      | 3            | 1                |
| CJC-212                 | Ethics & Community Relations     | 3            | 1                |
| CJC-214                 | Victimology                      | 3            | 1                |
| CJC-221                 | Investigative Principles         | 3            | 1                |
| CJC-231                 | Constitutional Law               | 3            | 1                |
| COM-231*                | Public Speaking                  | 3            | 1                |
| PSY-150*                | General Psychology               | 3            | 1                |
| <b>17 total courses</b> |                                  | <b>38</b>    | <b>17</b>        |

\*Provides one extra quality point when calculating high school GPA.

## Suggested Sequencing:

Fall: CJC-112, CJC-113 = 6 credit hours (online or seated various blocks in high school schedule)

Spring: CJC-132, CJC-214 = 6 credit hours (online or seated various blocks in high school schedule)

## Culinary Arts

Certificate – C55150CP

Available in:  Chatham  Harnett  Lee

### **Pathway Courses:**

| Course                 | Title                  | College Cred | High School Cred |
|------------------------|------------------------|--------------|------------------|
| CUL-110                | Sanitation & Safety    | 2            | 1                |
| CUL-140                | Culinary Skills I      | 5            | 2                |
| CUL-140A               | Culinary Skills I Lab  | 1            | 0                |
| CUL-170                | Garde Manger I         | 3            | 1                |
| CUL-240                | Culinary Skills II     | 5            | 2                |
| CUL-240A               | Culinary Skills II Lab | 1            | 0                |
| <b>6 total courses</b> |                        | <b>17</b>    | <b>6</b>         |

### **Suggested Sequencing:**

Fall or Spring: CUL-110, CUL-140/A, CUL-170, CUL-240/A = 17 credit hours (all day in high school schedule)

# Dental Assisting

## Certificate – C45240CW

Available in:  Chatham  Harnett  Lee

### **Pathway Courses:**

| Course                 | Title                    | College Cred | High School Cred |
|------------------------|--------------------------|--------------|------------------|
| ACA-115                | Success & Study Skills   | 1            | 0                |
| DEN-100                | Basic Orofacial Anatomy  | 2            | 1                |
| DEN-101                | Preclinical Procedures   | 7            | 2                |
| DEN-103                | Dental Sciences          | 2            | 1                |
| DEN-111                | Infection/Hazard Control | 2            | 1                |
| PSY-150*               | General Psychology       | 3            | 1                |
| <b>6 total courses</b> |                          | <b>18</b>    | <b>6</b>         |

\*Provides one extra quality point when calculating high school GPA.

### **Suggested Sequencing:**

Fall Year One: ACA-115, DEN-100, PSY-150 = 6 credit hours (online in high school schedule)

Spring Year One: DEN-103, DEN-111 = 4 credit hours (online in high school schedule)

Fall Year Two: DEN-101 = 7 credit hours (TBD)

# Early Childhood Education

Diploma – D55220CW

Available in:  Chatham  Harnett  Lee

This program has courses that require test scores.

## **Pathway Courses:**

| Course                  | Title                              | College Cred | High School Cred |
|-------------------------|------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success           | 1            | 1                |
| CIS-110*                | Introduction to Computers          | 3            | 1                |
| COM-231*                | Public Speaking                    | 3            | 1                |
| EDU-119                 | Intro to Early Childhood Education | 4            | 1                |
| EDU-131^                | Child, Family & Community          | 3            | 1                |
| EDU-144^                | Child Development I                | 3            | 1                |
| EDU-145^                | Child Development II               | 3            | 1                |
| EDU-146^                | Child Guidance                     | 3            | 1                |
| EDU-151^                | Creative Activities                | 3            | 1                |
| EDU-153^                | Health, Safety & Nutrition         | 3            | 1                |
| EDU-221^                | Children with Exceptional Needs    | 3            | 1                |
| EDU-234^                | Infants, Toddlers, & Twos          | 3            | 1                |
| PSY-150*                | General Psychology                 | 3            | 1                |
| <b>13 total courses</b> |                                    | <b>38</b>    | <b>13</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## **Suggested Sequencing:**

Fall Year One: EDU-119, EDU-131, EDU-144 = 10 credit hours (online in high school schedule)

Spring Year One: EDU-153, EDU-234, PSY-150 = 9 credit hours (online in high school schedule)

Summer Year One: EDU-221 = 3 credit hours (online)

Fall Year Two: EDU-145, EDU-146, EDU-151 = 9 credit hours (online in high school schedule)

Spring Year Two: CIS-110, COM-231, ACA-122 = 7 credit hours (online in high school schedule)

# Electronics Engineering Technology

Diploma – D40200CP

Available in: \_\_\_ Chatham \_X\_ Harnett \_X\_ Lee

This program has courses that require test scores.

## Pathway Courses:

| Course                  | Title                     | College Cred | High School Cred |
|-------------------------|---------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success  | 1            | 1                |
| CIS-110*                | Introduction to Computers | 3            | 1                |
| EGR-131                 | Intro to Electronics Tech | 2            | 1                |
| ELC-131                 | Circuit Analysis I        | 4            | 2                |
| ELC-131A                | Circuit Analysis I Lab    | 1            | 0                |
| ELN-131                 | Analog Electronics I      | 4            | 1                |
| ELN-132                 | Analog Electronics II     | 4            | 1                |
| ELN-133                 | Digital Electronics       | 4            | 2                |
| ENG-111*^               | Writing & Inquiry         | 3            | 1                |
| MAT-121^                | Algebra/Trigonometry I    | 3            | TBD              |
| MAT-122^                | Algebra/Trigonometry II   | 3            | TBD              |
| PHY-131                 | Physics- Mechanics        | 4            | TBD              |
| PHY-133                 | Physics- Sounds and Light | 4            | TBD              |
| <b>13 total courses</b> |                           | <b>40</b>    | <b>10</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## Suggested Sequencing:

Fall: CIS-110, EGR-131, ELC-131/A, MAT-121 = 13 credit hours (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

Spring: ELN-131, ELN-133, MAT-122 = 11 credit hours (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

# Health and Fitness Science

## Certificate – C45630CW

Available in: \_\_\_ Chatham \_\_\_ Harnett X Lee

### Pathway Courses:

| Course                 | Title                                  | College Cred | High School Cred |
|------------------------|--|--------------|------------------|
| ACA-115                | Success & Study Skills                 | 1            | 0                |
| HEA-112*               | First Aid & CPR                        | 2            | 1                |
| PED-117                | Weight Training I                      | 1            | 1                |
| PSF-110                | Exercise Science                       | 4            | 1                |
| PSF-111                | Fitness & Exercise Testing I           | 4            | 1                |
| PSF-116                | Prevention & Care of Exercise Injuries | 3            | 1                |
| PSF-210                | Personal Training                      | 3            | 1                |
| <b>7 total courses</b> |  | <b>18</b>    | <b>6</b>         |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall: HEA-112, PSF-110, ACA-115 = 7 credits (1<sup>st</sup> and 4<sup>th</sup> blocks in high school schedule)

Spring: PSF-111, PED-117, PSF-116 = 8 credits (1<sup>st</sup> and 2<sup>nd</sup> period in high school schedule)

Summer: PSF-210 = 3 credits (seated)



# Health Information Technology

## Certificate – C45360CW

Available in:  Chatham  Harnett  Lee

### **Pathway Courses:**

| Course                 | Title                                   | College Cred | High School Cred |
|------------------------|---|--------------|------------------|
| ACA-115                | Success & Study Skills                  | 1            | 0                |
| HIT-110                | Fundamentals of Health Information Mgmt | 3            | 1                |
| HIT-112                | Health Law & Ethics                     | 3            | 1                |
| MED-121                | Medical Terminology I                   | 3            | 1                |
| MED-122                | Medical Terminology II                  | 3            | 1                |
| PSY-150*               | General Psychology                      | 3            | 1                |
| <b>6 total courses</b> |   | <b>16</b>    | <b>5</b>         |

\*Provides one extra quality point when calculating high school GPA.

### **Suggested Sequencing:**

Fall: ACA-115, HIT-110, MED-121 = 7 credit hours (online in high school schedule)

Spring: PSY-150, HIS-112, MED-122 = 9 credit hours (online in high school schedule)

# Human Services Technology

## Diploma – D45380CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                                | College Cred | High School Cred |
|-------------------------|--------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success             | 1            | 1                |
| CIS-110*                | Introduction to Computers            | 3            | 1                |
| COM-120*                | Intro to Interpersonal Communication | 3            | 1                |
| HSE-110                 | Introduction to Human Services       | 3            | 1                |
| HSE-112                 | Group Process I                      | 2            | 1                |
| HSE-123                 | Interviewing Techniques              | 3            | 1                |
| HSE-125                 | Counseling                           | 3            | 1                |
| HSE-210                 | Human Services Issues                | 2            | 1                |
| HSE-225                 | Crisis Intervention                  | 3            | 1                |
| PSY-115                 | Stress Management                    | 2            | TBD              |
| PSY-150*                | General Psychology                   | 3            | 1                |
| PSY-241*                | Developmental Psychology             | 3            | 1                |
| SOC-210*                | Introduction to Sociology            | 3            | 1                |
| SOC-213*                | Sociology of the Family              | 3            | 1                |
| SOC-220*                | Social Problems                      | 3            | 1                |
| SOC-232*                | Social Context of Aging              | 3            | 1                |
| <b>16 total courses</b> |                                      | <b>43</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall Year One: ACA-122, HSE-110, PSY-150 = 7 credit hours (1<sup>st</sup> block or online in high school schedule)

Spring Year One: CIS-110, HSE-123, PSY-241 = 9 credit hours (1<sup>st</sup> and 2<sup>nd</sup> block or online in high school schedule)

Summer Year One: SOC-210 = 3 credit hours (online or seated)

Fall Year Two: HSE-112, HSE-225, SOC-213 = 8 credit hours (1<sup>st</sup> and 2<sup>nd</sup> block or online in high school schedule)

Spring Year Two: HSE-125, HSE-210, SOC-232 = 8 credit hours (1<sup>st</sup> and 2<sup>nd</sup> block or online in high school schedule)

# Industrial Systems Technology

## Diploma – D50240CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                           | College Cred | High School Cred |
|-------------------------|---------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success        | 1            | 1                |
| AHR-120                 | HVACR Maintenance               | 2            | 1                |
| BPR-111                 | Print Reading                   | 2            | 1                |
| BPR-115                 | Elc/Fluid Power Diagrams        | 2            | 1                |
| CIS-111                 | Basic PC Literacy               | 2            | 1                |
| COM-231*                | Public Speaking                 | 3            | 1                |
| ELC-112                 | DC/AC Electricity               | 5            | 2                |
| ELC-128                 | Intro to PLC                    | 3            | 1                |
| HIS-112*                | World Civilizations II          | 3            | 1                |
| HYD-110                 | Hydraulics/Pneumatics I         | 3            | 1                |
| ISC-110                 | Workplace Safety                | 1            | 1                |
| MEC-111                 | Machine Processes I             | 3            | 1                |
| MNT-110                 | Intro to Maintenance Procedures | 2            | 1                |
| MNT-111                 | Maintenance Practices           | 2            | 1                |
| WLD-112                 | Basic Welding Processes         | 2            | 1                |
| WLD-117                 | Industrial SMAW                 | 3            | 1                |
| WLD-121                 | GMAW (MIG) FCAW/Plate           | 4            | 1                |
| <b>17 total courses</b> |                                 | <b>44</b>    | <b>18</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

#### **Lee County CAT Apprenticeship- Rising Juniors Only**

Fall Year One: WLD-112 = 2 credit hours + CAT Training (1<sup>st</sup> block in high school schedule)  
Spring Year One: WLD-121/A = 2 credit hours + CAT Training (1<sup>st</sup> block in high school schedule)  
Summer Year One : Optional Work Opportunity (Up to 32 hours/week)  
Fall Year Two: WLD-121B, BPR-111 = 4 credit hours + CAT (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)  
Spring Year Two : WLD-117, ISC-110 = 4 credit hours + CAT (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

#### **Chatham County**

Fall: BPR-111, WLD-117 = 5 credit hours (1<sup>st</sup> block in high school schedule)  
Spring: WLD-121 = 4 credit hours (1<sup>st</sup> block in high school schedule)

## Infant Toddler Care

Certificate – C55290CP

Available in:  Chatham  Harnett  Lee

This program has courses that require test scores.

### **Pathway Courses:**

| Course                 | Title                              | College Cred | High School Cred |
|------------------------|------------------------------------|--------------|------------------|
| EDU-119                | Intro to Early Childhood Education | 4            | 1                |
| EDU-131^               | Child, Family & Community          | 3            | 1                |
| EDU-144^               | Child Development I                | 3            | 1                |
| EDU-151^               | Creative Activities                | 3            | 1                |
| EDU-234^               | Infants, Toddlers, & Twos          | 3            | 1                |
| <b>5 total courses</b> |                                    | <b>16</b>    | <b>5</b>         |

^Requires test scores.

### **Suggested Sequencing:**

Fall Year One: EDU-119, EDU-131, EDU-144 = 10 credit hours (online in high school schedule)

Spring Year One: EDU-153, EDU-234, PSY-150 = 9 credit hours (online in high school schedule)

# Information Technology

Diploma – D25590CW

Available in: \_\_\_ Chatham \_\_\_ Harnett \_X\_ Lee

This program has courses that require test scores.

## **Pathway Courses:**

| Course                  | Title                               | College Cred | High School Cred |
|-------------------------|-------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success            | 1            | 1                |
| CIS-115*^               | Intro to Programming & Logic        | 3            | 1                |
| CSC-134*                | C++ Programming                     | 3            | 1                |
| CTI-110                 | Web, Program, & Database Foundation | 3            | 1                |
| CTI-120                 | Network & Security Foundation       | 3            | 1                |
| CTS-115                 | Info Sys Business Concepts          | 3            | 1                |
| CTS-120                 | Hardware/Software Support           | 3            | 1                |
| CTS-220                 | Advanced Hardware/Software Support  | 3            | 1                |
| CTS-285                 | Systems Analysis & Logic            | 3            | 1                |
| DBA-110                 | Database Concepts                   | 3            | 1                |
| ENG-111*^               | Writing & Inquiry                   | 3            | 1                |
| MAT-143*^               | Quantitative Literacy               | 3            | 1                |
| NOS-130                 | Windows Single User                 | 3            | 1                |
| NOS-230                 | Windows Administration I            | 3            | 1                |
| SEC-110                 | Security Concepts                   | 3            | 1                |
| WEB-140                 | Web Development Tools               | 3            | 1                |
| <b>16 total courses</b> |                                     | <b>46</b>    | <b>16</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## **Suggested Sequencing:**

Fall: CTS-120, NOS-130 = 6 credit hours (2<sup>nd</sup> and 3<sup>rd</sup> blocks in high school schedule)

Spring: CIS-110, CTI-120 = 6 credit hours (4<sup>th</sup> block and online in high school schedule)

# Laser and Photonics Technology

Diploma – D40280CP

Available in: \_\_\_ Chatham \_X\_ Harnett \_X\_ Lee

This program has courses that require test scores.

## Pathway Courses:

| Course                  | Title                     | College Cred | High School Cred |
|-------------------------|---------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success  | 1            | 1                |
| CIS-110*                | Introduction to Computers | 3            | 1                |
| EGR-131                 | Intro to Electronics Tech | 2            | 1                |
| ELC-127                 | Software for Technicians  | 2            | 1                |
| ELC-131                 | Circuit Analysis I        | 4            | 2                |
| ELC-131A                | Circuit Analysis I Lab    | 1            | 0                |
| ELN-131                 | Analog Electronics I      | 4            | 1                |
| ELN-132                 | Analog Electronics II     | 4            | 1                |
| ELN-133                 | Digital Electronics       | 4            | 2                |
| ENG-111*^               | Writing & Inquiry         | 3            | 1                |
| LEO-111                 | Lasers and Applications   | 2            | TBD              |
| MAT-121^                | Algebra/Trigonometry I    | 3            | 1                |
| MAT-122^                | Algebra/Trigonometry II   | 3            | 1                |
| PHY-131                 | Physics- Mechanics        | 4            | TBD              |
| <b>14 total courses</b> |                           | <b>40</b>    | <b>13</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## Suggested Sequencing:

Fall: CIS-110, EGR-131, ELC-131/A, MAT-121 = 13 credit hours (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

Spring: ELN-131, ELN-133, MAT-122, ELC-127 = 13 credit hours (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

# Library and Information Technology

Diploma – D55130CW

Available in:  Chatham  Harnett  Lee

## Pathway Courses:

| Course                  | Title                               | College Cred | High School Cred |
|-------------------------|-------------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success            | 1            | 1                |
| CIS-110*                | Introduction to Computers           | 3            | 1                |
| COM-231*                | Public Speaking                     | 3            | 1                |
| LIB-110                 | Introduction to Libraries           | 3            | TBD              |
| LIB-111                 | Library Info Resources & Services   | 3            | TBD              |
| LIB-112                 | Library Collection Dev/Acq          | 3            | TBD              |
| LIB-113                 | Library Cataloging & Classification | 3            | TBD              |
| LIB-114                 | Library Public Service Operations   | 3            | TBD              |
| LIB-210                 | Electronic Library Databases        | 3            | TBD              |
| LIB-211                 | Library Program Development         | 3            | TBD              |
| LIB-212                 | Library Services/Special Needs      | 3            | TBD              |
| LIB-213                 | Cataloging Nonprint Materials       | 3            | TBD              |
| LIB-214                 | Library Program Development         | 3            | TBD              |
| SOC-210*                | Introduction to Sociology           | 3            | 1                |
| WEB-110                 | Internet/Web Fundamentals           | 3            | 1                |
| <b>15 total courses</b> |                                     | <b>43</b>    | <b>5</b>         |

\*Provides one extra quality point when calculating high school GPA.

## Suggested Sequencing:

Fall Year One: LIB-110, LIB-111 = 6 credit hours (online in high school schedule)

Spring Year One: LIB-112, LIB-114 = 6 credit hours (online in high school schedule)

Fall Year Two: LIB-113, WEB-110 = 6 credit hours (online in high school schedule)

Spring Year Two: LIB-210, CIS-110 = 6 credit hours (online in high school schedule)

# Manicuring/Nail Technology

Certificate – C55400CP

Available in:  Chatham  Harnett  Lee

## **Pathway Courses:**

| Course                 | Title                         | College Cred | High School Cred |
|------------------------|-------------------------------|--------------|------------------|
| COS-121                | Manicuring/Nail Technology I  | 6            | 2                |
| COS-222                | Manicuring/Nail Technology II | 6            | 2                |
| <b>2 total courses</b> |                               | <b>12</b>    | <b>4</b>         |

## **Suggested Sequencing:**

### **Chatham County**

Fall: COS-121 = 6 credit hours (3<sup>rd</sup> and 4<sup>th</sup> block in high school schedule)

Spring: COS-222 = 6 credit hours (3<sup>rd</sup> and 4<sup>th</sup> block in high school schedule)

### **Harnett County**

Fall: COS-121 = 6 credit hours (4<sup>th</sup> block in high school schedule)

Spring: COS-222 = 6 credit hours (4<sup>th</sup> block in high school schedule)



# Medical Assisting

## Diploma – D45400CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                            | College Cred | High School Cred |
|-------------------------|----------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success         | 1            | 1                |
| BIO-163*                | Basic Anatomy & Physiology       | 5            | 1                |
| COM-231*                | Public Speaking                  | 3            | 1                |
| MED-110                 | Orientation to Medical Assisting | 1            | 1                |
| MED-118                 | Medical Law and Ethics           | 2            | 1                |
| MED-121                 | Medical Terminology I            | 3            | 1                |
| MED-122                 | Medical Terminology II           | 3            | 1                |
| MED-130                 | Admin Office Procedures I        | 2            | 1                |
| MED-131                 | Admin Office Procedures II       | 2            | 1                |
| MED-140                 | Exam Room Procedures I           | 5            | 2                |
| MED-150                 | Laboratory Procedures I          | 5            | TBD              |
| MED-240                 | Exam Room Procedures II          | 5            | TBD              |
| PSY-150*                | General Psychology               | 3            | 1                |
| <b>13 total courses</b> |                                  | <b>40</b>    | <b>12</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall: ACA-122, MED-110, MED-121 = 5 credit hours (online in high school schedule)

Spring: MED-118, MED-122, PSY-150 = 8 credit hours (online in high school schedule)

# Medical Office Administration

## Diploma – D25310CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                          | College Cred | High School Cred |
|-------------------------|--------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success       | 1            | 1                |
| CIS-110*                | Introduction to Computers      | 3            | 1                |
| COM-231*                | Public Speaking                | 3            | 1                |
| OST-131                 | Keyboarding                    | 2            | 1                |
| OST-136                 | Word Processing                | 3            | 1                |
| OST-141                 | Medical Terms I- Med Office    | 3            | 1                |
| OST-142                 | Medical Terms II- Med Office   | 3            | 1                |
| OST-148                 | Med Coding Billing & Insurance | 3            | 1                |
| OST-149                 | Medical Legal Issues           | 3            | 1                |
| OST-164                 | Text Editing Applications      | 3            | 1                |
| OST-243                 | Medical Office Simulation      | 3            | 1                |
| OST-247                 | Procedural Coding              | 3            | 1                |
| OST-248                 | Diagnostic Coding              | 3            | 1                |
| OST-289                 | Administrative Office Mgmt     | 3            | 1                |
| SOC-210*                | Introduction to Sociology      | 3            | 1                |
| <b>15 total courses</b> |                                | <b>42</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall: OST-141, OST-149 = 6 credit hours (online in high school schedule)

Spring: OST-142, OST-148 = 6 credit hours (online in high school schedule)

# Motorcycle Mechanics

Diploma – D60260CW

Available in: \_\_\_ Chatham \_X\_ Harnett \_X\_ Lee

This program has courses that require test scores.

## Pathway Courses:

| Course                  | Title                            | College Cred | High School Cred |
|-------------------------|----------------------------------|--------------|------------------|
| CIS-110*                | Introduction to Computers        | 3            | 1                |
| ENG-102                 | Applied Communications II        | 3            | TBD              |
| MAT-110^                | Math Measurement & Literacy      | 3            | TBD              |
| MCM-111                 | Motorcycle Mechanics             | 7            | 2                |
| MCM-114                 | Motorcycle Fuel Systems          | 5            | 2                |
| MCM-115                 | Motorcycle Chassis               | 3            | 1                |
| MCM-117                 | Motorcycle Dyno Tuning I         | 3            | TBD              |
| MCM-122                 | Motorcycle Engines               | 5            | TBD              |
| MCM-217                 | Motorcycle Dyno Tuning II        | 3            | TBD              |
| MEC-111                 | Machine Processes I              | 3            | 1                |
| TRN-110                 | Introduction to Transport Tech   | 2            | 1                |
| TRN-120                 | Basic Transportation Electricity | 5            | 2                |
| TRN-180                 | Basic Welding for Transportation | 3            | 1                |
| <b>13 total courses</b> |                                  | <b>48</b>    | <b>11</b>        |

\*Provides one extra quality point when calculating high school GPA.

^Requires test scores.

## Suggested Sequencing:

Fall: TRN-110, MCM-122A = 4.5 credit hours (4<sup>th</sup> block in high school schedule)

Spring: MCM-122B = 2.5 credit hours (4<sup>th</sup> block in high school schedule)

# Nurse Aide

## Diploma – D45970CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                         | College Cred | High School Cred |
|-------------------------|-------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success      | 1            | 1                |
| COM-231*                | Public Speaking               | 3            | 1                |
| HEA-112                 | First Aid & CPR               | 2            | 1                |
| HSC-110                 | Orientation to Health Careers | 1            | 1                |
| MED-121                 | Medical Terminology I         | 3            | 1                |
| MED-122                 | Medical Terminology II        | 3            | 1                |
| MUS-110*                | Music Appreciation            | 3            | 1                |
| NAS-101                 | Nurse Aide I                  | 6            | 2                |
| NAS-102                 | Nurse Aide II                 | 6            | 2                |
| NUT-110                 | Nutrition                     | 3            | 1                |
| PSY-150*                | General Psychology            | 3            | 1                |
| SOC-240*                | Social Psychology             | 3            | 1                |
| <b>12 total courses</b> |                               | <b>37</b>    | <b>14</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

#### **Chatham, Harnett, and Lee Counties**

Fall or Spring: NAS-101, PSY-150 = 9 credits (1<sup>st</sup> and 2<sup>nd</sup> blocks in high school schedule)

#### **Harnett Health Sciences Academy**

Fall Year One (11<sup>th</sup> Grade): ACA-122, COM-231, HSC-110 = 5 credit hours (online in high s

Fall Year Two (12<sup>th</sup> Grade): HNSA students will have the option to choose their pathway:

- Dental Assisting
- Health and Fitness Science
- Health Information Technology
- Medical Assisting
- Medical Office Administration
- Nurse Aide
- Veterinary Medical Technology

# Sustainability Technologies

## Diploma – D40370CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                            | College Cred | High School Cred |
|-------------------------|----------------------------------|--------------|------------------|
| ACA-122*                | College Transfer Success         | 1            | 1                |
| ALT-110                 | Biofuels I                       | 3            | TBD              |
| ALT-120                 | Renewable Energy Technology      | 3            | 1                |
| ALT-250                 | Thermal Systems                  | 3            | TBD              |
| BIO-140*                | Environmental Biology            | 3            | 1                |
| BIO-140A                | Environmental Biology Lab        | 1            | 0                |
| COM-231*                | Public Speaking                  | 3            | 1                |
| ELC-111                 | Introduction to Electricity      | 3            | 1                |
| ELC-220                 | Photovoltaic Systems Technology  | 3            | 1                |
| HIS-132*                | American History II              | 3            | 1                |
| SST-110                 | Intro to Sustainability          | 3            | 1                |
| SST-120                 | Energy Use Analysis              | 3            | 1                |
| SST-130                 | Modeling Renewable Energy        | 3            | 1                |
| SST-140                 | Green Building & Design Concepts | 3            | 1                |
| SST-210                 | Issues in Sustainability         | 3            | 1                |
| <b>15 total courses</b> |                                  | <b>41</b>    | <b>12</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall: ALT-120, ELC-111A = 4.5 credit hours (4<sup>th</sup> block in high school schedule)

Spring: ELC-111B, ELC-220 = 4.5 credit hours (4<sup>th</sup> block in high school schedule)

# Sustainable Agriculture

## Diploma – D15410CW

Available in:  Chatham  Harnett  Lee

### Pathway Courses:

| Course                  | Title                                   | College Cred | High School Cred |
|-------------------------|---|--------------|------------------|
| ACA-122*                | College Transfer Success                | 1            | 1                |
| AGR-111                 | Basic Farm Maintenance                  | 2            | 1                |
| AGR-121                 | Biological Pest Management              | 3            | 1                |
| AGR-139                 | Introduction to Sustainable Agriculture | 3            | 1                |
| AGR-170                 | Soil Science                            | 3            | 1                |
| AGR-214                 | Agricultural Marketing                  | 3            | 1                |
| AGR-265                 | Organic Crop Production: Spring         | 3            | 1                |
| AGR-266                 | Organic Crop Production: Fall           | 3            | TBD              |
| ANS-110                 | Animal Science                          | 3            | 1                |
| ANS-111                 | Sustainable Livestock Management        | 3            | TBD              |
| CIS-110*                | Introduction to Computers               | 3            | 1                |
| ENG-102                 | Applied Communications II               | 3            | 1                |
| HIS-111*                | World Civilizations I                   | 3            | 1                |
| SEL-293                 | Selected Topics in _____                | 3            | TBD              |
| WBL-111                 | Work-Based Learning I                   | 1            | 1                |
| <b>15 total courses</b> |   | <b>40</b>    | <b>12</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

Fall Year One: AGR-139, AGR-170 = 6 credit hours (3<sup>rd</sup> and 4<sup>th</sup> blocks in high school schedule)

Spring Year One: AGR-121 = 3 credit hours (1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> blocks in high school schedule)

Fall Year Two: AGR-214, AGR-266 = 3 credit hours (1<sup>st</sup> and 4<sup>th</sup> blocks in high school schedule)

Spring Year Two: AGR-265 = 3 credit hours (3<sup>rd</sup> and 4<sup>th</sup> blocks in high school schedule)

# Veterinary Medical Technology

## Certificate – C45780CW

Available in:  Chatham  Harnett  Lee

### **Pathway Courses:**

| Course                 | Title                          | College Cred | High School Cred |
|------------------------|--------------------------------|--------------|------------------|
| ACA-115                | Success & Study Skills         | 1            | 1                |
| PSY-150*               | General Psychology             | 3            | 1                |
| VET-110                | Animal Breeds and Husbandry    | 3            | TBD              |
| VET-114                | Introduction to Vet Med Tech   | 1            | 1                |
| VET-120                | Vet Anatomy & Physiology       | 4            | 1                |
| VET-121                | Veterinary Medical Terminology | 3            | 1                |
| VET-137                | Vet Office Practices           | 2            | TBD              |
| <b>7 total courses</b> |                                | <b>17</b>    | <b>5</b>         |

\*Provides one extra quality point when calculating high school GPA.

### **Suggested Sequencing:**

Fall Year One: ACA-115, VET-114, PSY-150 = 5 credit hours (online in high school schedule)

Spring Year Two: VET-121, VET-137 = 5 credit hours (online in high school schedule)

Fall Year Two: VET-110, VET-120 = 7 credit hours (all day in high school schedule)

# Welding Technology

## Diploma – D50420CW

Available in: \_\_\_ Chatham X Harnett \_\_\_ Lee

### Pathway Courses:

| Course                  | Title                     | College Cred | High School Cred |
|-------------------------|---------------------------|--------------|------------------|
| ACA-115                 | Success and Study Skills  | 1            | 1                |
| BPR-111                 | Print Reading             | 2            | 1                |
| COM-231*                | Public Speaking           | 3            | 1                |
| HIS-131*                | American History I        | 3            | 1                |
| ISC-110                 | Workplace Safety          | 1            | 1                |
| WLD-110                 | Cutting Processes         | 2            | 1                |
| WLD-115                 | SMAW (Stick) Plate        | 5            | 2                |
| WLD-116                 | SMAW (Stick) Plate/Pipe   | 4            | 1                |
| WLD-121                 | GMAW (MIG) FCAW/Plate     | 4            | 1                |
| WLD-131                 | GTAW (TIG) Plate          | 4            | 1                |
| WLD-141                 | Symbols & Specifications  | 3            | 1                |
| WLD-151                 | Fabrication I             | 4            | 1                |
| WLD-262                 | Inspection & Testing      | 3            | 1                |
| WLD-265                 | Automated Welding/Cutting | 4            | 1                |
| <b>14 total courses</b> |                           | <b>43</b>    | <b>15</b>        |

\*Provides one extra quality point when calculating high school GPA.

### Suggested Sequencing:

#### **Harnett County Apprenticeship- Rising Seniors Only**

|                  |  |
|------------------|--|
| Summer Year One: | Required 4 day Orientation   |
| Fall Year One:   | WLD-115, ISC-110 = 6 credit hours (2 <sup>nd</sup> , 3 <sup>rd</sup> , and 4 <sup>th</sup> blocks in high school schedule) |
| Spring Year One: | WLD-121, BPR-111, ACA-115 = 7 credit hours (2 <sup>nd</sup> , 3 <sup>rd</sup> , and 4 <sup>th</sup> blocks in high school) |
| Summer Year Two: | WLD-110, WLD-116 = 6 credit hours  |



# Course Descriptions

**ACA 115**                      **Success and Study Skills**    College credit: 1 semester hour

This course provides an orientation to the campus resources and academic skills necessary to achieve educational objectives. Emphasis is placed on an exploration of facilities and services, study skills, library skills, self-assessment, wellness, goal-setting, and critical thinking. Upon completion, students should be able to manage their learning experiences to successfully meet educational goals.

**ACA 122**                      **College Transfer Success**    College credit: 1 semester hour

This course provides information and strategies necessary to develop clear academic and professional goals beyond the community college experience. Topics include the CAA, college culture, career exploration, gathering information on senior institutions, strategic planning, critical thinking, and communications skills for a successful academic transition. Upon completion, students should be able to develop an academic plan to transition successfully to senior institutions. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**ACC 115**                      **College Accounting**    College Credit: 4 semester hours

This course introduces basic accounting principles for a business. Topics include the complete accounting cycle with end-of-period statements, bank reconciliation, payrolls, and petty cash. Upon completion, students should be able to demonstrate an understanding of accounting principles and apply those skills to a business organization. *Students can receive high school CTE state articulated credit for Accounting I/Accounting II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**ACC 120**                      **Principles of Financial Accounting**    College Credit: 4 semester hours

This course introduces business decision-making using accounting information systems. Emphasis is placed on analyzing, summarizing, reporting, and interpreting financial information. Upon completion, students should be able to prepare financial statements, understand the role of financial information in decision-making, and address ethical considerations. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**ACC 121**                      **Principles of Managerial Accounting**    College Credit: 4 semester hours

*Prerequisite: ACC 120*

This course includes a greater emphasis on managerial and cost accounting skills. Emphasis is placed on managerial accounting concepts for external and internal analysis, reporting, and decision making. Upon completion, students should be able to analyze and interpret transactions relating to managerial concepts including product-costing systems. This course has been approved for transfer under the CAA and ICAA a premajor and/or elective course requirement.

**ACC 122**                      **Principles of Financial Accounting II**    College Credit: 3 semester hours

*Prerequisite: ACC 120*

This course provides additional instruction in the financial accounting concepts and procedures introduced in ACC 120. Emphasis is placed on the analysis of specific balance sheet accounts, with in-depth instruction of the

accounting principles applied to these accounts. Upon completion, students should be able to analyze data, prepare journal entries, and prepare reports in compliance with generally accepted accounting principles.

**ACC 129                      Individual Income Taxes    College Credit: 3 semester hours**

This course introduces the relevant laws governing individual income taxation. Topics include tax law, electronic research and methodologies, and the use of technology for preparation of individual tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various individual tax forms.

**ACC 130                      Business Income Taxes    College Credit: 3 semester hours**

*Local Prerequisite: ACC 120*

This course introduces the relevant laws governing business and fiduciary income taxes. Topics include tax law relating to business organizations, electronic research and methodologies, and the use of technology for the preparation of business tax returns. Upon completion, students should be able to analyze basic tax scenarios, research applicable tax law, and complete various business tax forms.

**ACC 140                      Payroll Accounting    College Credit: 2 semester hours**

*Local Prerequisite: ACC 115 or ACC 120*

This course covers federal and state laws pertaining to wages, payroll taxes, payroll tax forms, and journal and general ledger transactions. Emphasis is placed on computing wages; calculating social security, income, and unemployment taxes; preparing appropriate payroll tax forms; and journalizing/posting transactions. Upon completion, students should be able to analyze data, make appropriate computations, complete forms, and prepare accounting entries using appropriate technology.

**ACC 150                      Accounting Software Applications    College Credit: 2 semester hours**

*Local Prerequisite: ACC 115 or ACC 120*

This course introduces microcomputer applications related to accounting systems. Topics include general ledger, accounts receivable, accounts payable, inventory, payroll, and correcting, adjusting, and closing entries. Upon completion, students should be able to use a computer accounting package to solve accounting problems.

**AGR 111                      Basic Farm Maintenance    College Credit: 2 semester hours**

This course covers fundamentals of maintenance and repair of farm facilities and equipment. Topics include safe use of hand tools and farm machinery, carpentry, concrete, painting, wiring, welding, plumbing, and calculating costs and materials needed. Upon completion, students should be able to answer theoretical questions on topics covered and assist with maintenance and repair of farm facilities and equipment. *Students can receive high school CTE state articulated credit for Agricultural Mechanics II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**AGR 121                      Biological Pest Management    College Credit: 3 semester hours**

This course will emphasize the building and maintaining of healthy soil, plant, and insect biological cycles as the key to pest and disease management. Course content includes study of major pests and diseases, including structure, life cycle, and favored hosts; and biological and least toxic methods of chemical control. Upon completion, students should be able to identify and recommend methods of prevention and control of selected insects and diseases

**AGR 139 Introduction to Sustainable Agriculture** College Credit: 3 semester hours

This course will provide students with a clear perspective on the principles, history, and practices of sustainable agriculture in our local and global communities. Students will be introduced to the economic, environmental, and social impacts of agriculture. Upon completion, students should be able to identify the principles of sustainable agriculture as they relate to basic production practices

**AGR 170 Soil Science** College Credit: 3 semester hours

This course covers the basic principles of soil management and fertilization. Topics include liming, fertilization, soil management, biological properties of soil (including beneficial microorganisms), sustainable land care practices and the impact on soils, and plant nutrients. Upon completion, students should be able to analyze, evaluate, 148 and properly amend soils/media according to sustainable practices.

**AGR 214 Agricultural Marketing** College Credit: 3 semester hours

This course covers basic marketing principles for agricultural products. Topics include buying, selling, processing, standardizing, grading, storing, and marketing of agricultural commodities. Upon completion, students should be able to construct a marketing plan for an agricultural product

**AGR 265 Organic Crop Production: Fall** College Credit: 3 semester hours

This course includes a study of spring organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the spring season.

**AGR 266 Organic Crop Production: Spring** College Credit: 3 semester hours

The course includes a study of fall organic crop production practices, including vegetables, cut flowers, and culinary and medicinal herbs. Topics include variety selection, production methods, and record keeping procedures for certification. Upon completion, students should be able to demonstrate a knowledge of organic crop production appropriate for the fall season.

**AHR 120 HVACR Maintenance** College Credit: 2 semester hours

This course introduces the basic principles of industrial air conditioning and heating systems. Emphasis is placed on preventive maintenance procedures for heating and cooling equipment and related components. Upon completion, students should be able to perform routine preventive maintenance tasks, maintain records, and assist in routine equipment repairs.

**ALT 110 Biofuels I** College Credit: 3 semester hours

This course is designed to provide an introduction to the fundamentals of bio-based fuels. Emphasis is placed on proper handling and use guidelines, basic chemistry of biofuels, production methods, and the social, environmental, and economic impacts of biofuels. Upon completion, students should be able to demonstrate a general understanding of biofuels.

**ALT 120 Renewable Energy Tech** College credit: 3 semester hours

This course provides an introduction to multiple technologies that allow for the production and/or conservation of energy from renewable sources. Topics will include hydroelectric, wind power, passive and active solar energy,

tidal energy, appropriate building techniques, and energy conservation methods. Upon completion, students should be able to demonstrate an understanding of renewable energy production and its impact of humans and their environment.

**ALT 250                  Thermal Systems    College Credit: 3 semester hours**

This course introduces concepts, tools, techniques, and materials used to convert thermal energy into a viable, renewable energy resource. Topics include forced convection, heat flow and exchange, radiation, the various elements of thermal system design, regulations, and system installation and maintenance. Upon completion, students should be able to demonstrate an understanding of geothermal and solar thermal systems and corresponding regulations.

**ANS 110                  Animal Science    College Credit: 3 semester hours**

This course introduces the livestock industry. Topics include nutrition, reproduction, production practices, diseases, meat processing, sustainable livestock production, and marketing. Upon completion, students should be able to demonstrate a basic understanding of livestock production practices and the economic impact of livestock locally, regionally, state-wide, and internationally. *Students can receive high school CTE state articulated credit for Animal Science II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**ANS 111                  Sustainable Livestock Management    College Credit: 3 semester hours**

This course covers the integration of livestock as part of a sustainable farming system with emphasis on small-scale production for niche markets and pasture. Topics included are appropriate breed selection, nutrition and living requirements for livestock such as goats, hogs, sheep, poultry, and bees. Upon completion, student should recognize appropriate breeds for their farm needs and demonstrate knowledge of small-scale livestock production.

**ARS 112                  Auto Restoration Research    College Credit: 3 semester hours**

This course covers identification and collection of information needed to restore classic automobiles. Emphasis is placed on using books, numbers, emblems, titles, bills of sale, and other documents as resources. Upon completion, students should be able to use reference materials in the area of auto restoration to restore classic vehicles.

**ARS 113                  Automobile Upholstery    College Credit: 4 semester hours**

This course covers automobile upholstery work used in restoration of classic automobiles. Emphasis is placed on removing, repairing, or reconstructing worn/damaged upholstery material in classic automobiles. Upon completion, students should be able to disassemble, repair/reconstruct, or replace the seats, headliners, door panels, and other components in the interior of vehicles.

**ARS 114                  Restoration Skills I    College Credit: 4 semester hours**

This course covers mechanical, electrical, and upholstery restoration. Emphasis is placed on engines, transmissions, brakes, starters, generators, distributors, and replacement or fabrication of upholstery. Upon completion, students should be able to restore, rebuild, or replace specific components in a wide range of classic vehicles.

**ARS 117                  Automotive Engines    College Credit: 2 semester hours**

This course covers the repair, rebuilding, and troubleshooting of internal combustion engines. Emphasis is placed on use of tools and equipment to measure reconditioning tolerances of the internal combustion engine. Upon completion, students should be able to disassemble, repair and/or replace, and reassemble an internal combustion engine.

**ARS 118                      Wood and Metal Restoration                      College Credit: 3 semester hours**

This course introduces various wood materials used in early automobile construction including a general overview of woodworking techniques. Emphasis is placed on wood material, metal behavior, and trim construction. Upon completion, students should be able to perform simple woodworking techniques, attach and remove trim, and be familiar with basic hardware techniques.

**ARS 131                      Chassis and Drive Trains                      College Credit: 3 semester hours**

This course introduces principles of operation of automotive drive trains, perimeter/ladder/full-framed vehicles, and related restoration processes. Emphasis is placed on the technology related to restoration of manual and automatic transmissions, transaxles, and final drive components used on vehicles. Upon completion, students should be able to describe, diagnose, and determine needed service and repairs in the vehicle restoration industry.

**ART 111                      Art Appreciation                      College Credit: 3 semester hours**

This course introduces the origins and historical development of art. Emphasis is placed on the relationship of design principles to various art forms including but not limited to sculpture, painting, and architecture. Upon completion, students should be able to identify and analyze a variety of artistic styles, periods, and media. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ART 114                      Art History Survey I                      College Credit: 3 semester hours**

This course covers the development of art forms from ancient times to the Renaissance. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ART 115                      Art History Survey II                      College Credit: 3 semester hours**

This course covers the development of art forms from the Renaissance to the present. Emphasis is placed on content, terminology, design, and style. Upon completion, students should be able to demonstrate an historical understanding of art as a product reflective of human social development. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**AUB 111                      Painting and Refinishing I                      College Credit: 4 semester hours**

This course introduces the proper procedures for using automotive refinishing equipment and materials in surface preparation and application. Topics include federal, state, and local regulations, personal safety, refinishing equipment and materials, surface preparation, masking, application techniques, and other related topics. Upon completion, students should be able to identify and use proper equipment and materials in refinishing by following accepted industry standards.

**AUB 112                      Painting and Refinishing II                      College Credit: 4 semester hours**  
*Prerequisite: AUB 111*



**AUT 163          Advanced Auto Electricity**

College Credit: 3 semester hours

*Prerequisite: TRN 120*

This course covers electronic theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

**AUT 163A          Advanced Automotive Electricity Lab**

College Credit: 1 semester hour

*Corequisite: AUT 163*

This course is an optional lab to be used as an alternative to co-op placement in meeting the NATEF standards for total hours. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, troubleshooting, and emerging electrical/electronic systems technologies. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

**AUT 181          Engine Performance I**

College Credit: 3 semester hours

This course covers the introduction, theory of operation, and basic diagnostic procedures required to restore engine performance to vehicles equipped with complex engine control systems. Topics include an overview of engine operation, ignition components and systems, fuel delivery, injection components and systems, and emission control devices. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel, and emission related drivability problems using appropriate test equipment/service information.

**AUT 181A          Engine Performance I Lab**

College Credit: 1 semester hour

*Corequisite: AUT 181*

This course is an optional lab to be used as an alternative to coop placement in meeting the NATEF standards for total hours. Topics include overviews of engine operation, ignition components and systems, fuel delivery, injection components and systems, and emission control devices and emerging engine performance technologies. Upon completion, students should be able to describe operation and diagnose/repair basic ignition, fuel, and emission-related drive ability problems using appropriate test equipment/service information.

**AUT 183          Engine Performance 2**

College Credit: 4 semester hours

*Prerequisite: AUT 181*

This course covers study of the electronic engine control systems, the diagnostic process used to locate engine performance concerns, and procedures used to restore normal operation. Topics will include currently used fuels and fuel systems, exhaust gas analysis, emission control components and systems, OBD II (on-board diagnostics), and inter-related electrical/electronic systems. Upon completion, students should be able to diagnose and repair complex engine performance concerns using appropriate test equipment and service information.

**BAR 111          Barbering Concepts I**

College Credit: 4 semester hours

*Corequisite: BAR 112*

This course introduces basic barbering concepts and includes careers in barber styling and various hair treatments. Emphasis is placed on sanitizing equipment, professional ethics, skin\ scalp, and hair disorders and treatment, and safe work practices. Upon completion, students should be able to safely and competently apply barbering concepts in the shop setting.

**BAR 112          Barbering Clinic I**

College Credit: 8 semester hours

*Corequisite: BAR 111*

This course introduces basic clinic services. Topics include a study of sanitizing procedures for implements and equipment, determination of hair texture, hair cutting, and hair processing. Upon completion, students should be able to safely and competently demonstrate shop services.

**BAR 113          Barbering Concepts II**

College Credit: 4 semester hours

*Corequisite: BAR 114*

This course covers more comprehensive barbering concepts. Topics include safety and sanitation, product knowledge, as well as both wet and thermal hairstyling. Upon completion, students should be able to safely and competently apply these barbering concepts in the shop setting.

**BAR 114          Barbering Clinic II**

College Credit: 8 semester hours

*Corequisite: BAR 113*

This course provides experience in a simulated shop setting. Topics include draping, shampooing, hair cutting, and hair drying as well as chemical processing. Upon completion, students should be able to safely and completely apply these barbering concepts in the shop setting.

**BIO 110          Principles of Biology**

College Credit: 4 semester hours

This course provides a survey of fundamental biological principles for non-science majors. Emphasis is placed on basic chemistry, cell biology, metabolism, genetics, taxonomy, evolution, ecology, diversity, and other related topics. Upon completion, students should be able to demonstrate increased knowledge and better understanding of biology as it applies to everyday life. Under the CAA and ICAA, this course satisfies the general education Natural Science requirement for the AA and AFA degrees. It does not satisfy the general education Natural Science requirement for the AS degree.

**BIO 111          General Biology I**

College Credit: 4 semester hours

This course introduces the principles and concepts of biology. Emphasis is placed on basic biological chemistry, cell structure and function, metabolism and energy transformation, genetics, evolution, classification, and other related topics. Upon completion, students should be able to demonstrate understanding of life at the molecular and cellular levels. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**BIO 112          General Biology II**

College Credit: 4 semester hours

*Prerequisite: BIO 111*

This course is a continuation of BIO 111. Emphasis is placed on organisms, biodiversity, plant and animal systems, ecology, and other related topics. Upon completion, students should be able to demonstrate comprehension of life at the organismal and ecological levels. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**BIO 140          Environmental Biology**

College Credit: 3 semester hours

*Corequisite: BIO 140A*

This course introduces environmental processes and the influence of human activities upon them. Topics include ecological concepts, population growth, natural resources, and a focus on current environmental problems from



scientific, social, political, and economic perspectives. Upon completion, students should be able to demonstrate an understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**BIO 140A Environmental Biology Laboratory**

College Credit: 1 semester hour

*Corequisite: BIO 140*

This course provides a laboratory component to complement BIO 140. Emphasis is placed on laboratory and field experience. Upon completion, students should be able to demonstrate a practical understanding of environmental interrelationships and of contemporary environmental issues. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**BIO 163 Basic Anatomy and Physiology**

College Credit: 5 semester hours

This course provides a basic study of the structure and function of the human body. Topics include a basic study of the body systems as well as an introduction to homeostasis, cells, tissues, nutrition, acid-base balance, and electrolytes. Upon completion, students should be able to demonstrate a basic understanding of the fundamental principles of anatomy and physiology and their interrelationships.

**BPR 111 Blueprint Reading**

College Credit: 2 semester hours

This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system. *Students can receive high school CTE state articulated credit for Metals Manufacturing Technology I and Metals Manufacturing Technology II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment (BPR 111 and MAC 111 and MAC 151).*

**BPR 115 Electric/Fluid Power Diagrams**

College Credit: 2 semester hours

This course covers sketching of detail and assembly drawings and reading of hydraulic, pneumatic, electrical, mechanical, and piping schematics. Emphasis is placed on interpretation and communication skills utilizing sketches, symbols, diagrams, and other related topics. Upon completion, students should be able to read, demonstrate an understanding of, and draw sketches and schematics commonly used in industry.

**BPR 121 Blueprint Reading: Mechanical**

College Credit: 2 semester hours

*Prerequisite: BPR 111 or MAC 131*

This course covers the interpretation of intermediate blueprints. Topics include tolerancing, auxiliary views, sectional views, and assembly drawings. Upon completion, students should be able to read and interpret a mechanical working drawing.

**BPT 110 Introduction to Broadcasting**

College Credit: 3 semester hours

This course introduces the field of broadcasting and other electronic media. Emphasis is placed on the history, development, and current status of radio, television, and related industries. Upon completion, students should be able to demonstrate knowledge of regulations, organizational structure, revenue sources, historical development, and ongoing operation of broadcasting and related industries.

**BPT 111 Broadcast Law & Ethics**

College Credit: 3 semester hours

This course covers judicial, legislative, and administrative policies pertinent to the ethical and legal operation of broadcast and other electronic media organizations. Emphasis is placed on legal and ethical issues including First Amendment protection, FCC regulations, copyright, and libel laws. Upon completion, students should be able to demonstrate an understanding of the historical significance and modern-day application of important broadcast laws and policies.

**BPT 112 Broadcast Writing** College Credit: 4 semester hours

This course introduces proper copy and script writing techniques and formats for radio, television, and other electronic media. Emphasis is placed on creating effective scripts for programs and promotional materials, including commercial and public radio service announcements for a specific target audience. Upon completion, students should be able to understand and write copy and scripts according to standard industry formats.

**BPT 113 Broadcast Sales** College Credit: 3 semester hours

This course covers sales principles applicable to radio, television, cable, and other electronic media. Emphasis is placed on prospecting and servicing accounts, developing clients, and preparing sales presentations. Upon completion, students should be able to create a sales presentation based upon standard ratings reports, prospect for new customers, and understand account management.

**BPT 121 Broadcast Speech I** College Credit: 3 semester hours

This course covers basic preparation and performance of on-air talents' speaking quality. Emphasis is placed on developing a pleasant and efficient voice with techniques applied to taped news, features, commercial copy, and announcing. Upon completion, students should be able to show improvement and aptitude in proper articulation, pronunciation, rate of delivery, pitch, breathing techniques, inflection, projection, and phrasing.

**BPT 131 Audio/Radio Production I** College Credit: 4 semester hours

This course covers the creation, development, production, and presentation of audio programming elements for broadcast and/or other electronic media applications. Emphasis is placed on the proper operation of professional audio equipment and the study of basic physical behavior and perceptual effects of sound. Upon completion, students should be able to correctly operate audio recording and playback equipment and demonstrate an understanding of the basic components of sound.

**BPT 135 Radio Performance I** College Credit: 2 semester hours

This course provides an opportunity to operate the college radio station as an announcer/board operator. Emphasis is placed on operating control-room equipment, logging transmitter readings, EBS tests, reading news, and broadcasting free of interruptions. Upon completion, students should be able to prepare music, public service announcements, and promos for timely broadcast; introduce songs/programs smoothly; and follow FCC rules.

**BPT 215 Broadcast Programming** College Credit: 3 semester hours

This course covers programming methods, research, and resources needed to provide programs for radio, television, cable, and satellite target audiences. Topics include market research and analysis; local, network, and public station programming and program sources; and scheduling procedures for electronic media. Upon completion, students should be able to develop a programming format or schedule.

**BPT 231 Video/TV Production I** College Credit: 4 semester hours

This course covers the language of film/video, shot composition, set design, lighting, production planning, scripting, editing, and operation of video and television production equipment. Emphasis is placed on mastering the body of knowledge and techniques followed in producing all forms of video and television production. Upon completion, students should be able to produce basic video and television productions in a team environment.

**BPT 232**                      **Video/TV Production II**    College Credit: 4 semester hours

*Prerequisite: BPT 231*

This course covers advanced video and television production. Emphasis is placed on field production, post-production, digital video effects, graphics, and multi-camera productions. Upon completion, students should be able to create productions that optimize the use of studio, field, and post-production equipment.

**BUS 110**                      **Introduction to Business**    College Credit: 3 semester hours

This course provides a survey of the business world. Topics include the basic principles and practices of contemporary business. Upon completion, students should be able to demonstrate an understanding of business concepts as a foundation for studying other business subjects. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BUS 115**                      **Business Law I**    College Credit: 3 semester hours

This course introduces the ethics and legal framework of business. Emphasis is placed on contracts, negotiable instruments, Uniform Commercial Code, and the working of the court systems. Upon completion, students should be able to apply ethical issues and laws covered to selected business decision-making situations. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BUS 125**                      **Personal Finance**    College Credit: 3 semester hours

This course provides a study of individual and family financial decisions. Emphasis is placed on building useful skills in buying, managing finances, increasing resources, and coping with current economic conditions. Upon completion, students should be able to develop a personal financial plan. *Students can receive high school CTE state articulated credit for Personal Finance if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**BUS 137**                      **Principles of Management**    College Credit: 3 semester hours

This course is designed to be an overview of the major functions of management. Emphasis is placed on planning, organizing, controlling, directing, and communicating. Upon completion, students should be able to work as contributing members of a team utilizing these functions of management. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**BUS 151**                      **People Skills**    College Credit: 3 semester hours

This course introduces the basic concepts of identity and communication in the business setting. Topics include self-concept, values, communication styles, feelings and emotions, roles versus relationships, and basic assertiveness, listening, and conflict resolution. Upon completion, students should be able to distinguish between unhealthy, self-destructive, communication patterns and healthy, non-destructive, positive communication patterns.

**BUS 153**                      **Human Resources Management**    College Credit: 3 semester hours

This course introduces the functions of personnel/human resource management within an organization. Topics include equal opportunity and the legal environment, recruitment and selection, performance appraisal, employee development, compensation planning, and employee relations. Upon completion, students should be able to anticipate and resolve human resource concerns.

**BUS 280**                      **REAL Small Business**    College Credit: 4 semester hours

This course introduces hands-on techniques and procedures for planning and opening a small business, including the personal qualities needed for entrepreneurship. Emphasis is placed on market research, finance, time management, and day-to-day activities of owning/operating a small business. Upon completion, students should be able to write and implement a viable business plan and seek funding.

**CHI 111**                      **Elementary Chinese I**    College Credit: 3 semester hours

This course introduces the fundamental elements of the Chinese language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Chinese and demonstrate cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**CHI 112**                      **Elementary Chinese II**    College Credit: 3 semester hours  
*Prerequisite: CHI 111*

This course includes the basic fundamentals of the Chinese language within a cultural context of the Chinese people and its history. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Chinese and demonstrate further cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**CHM 151**                      **General Chemistry I**    College Credit: 4 semester hours

This course covers fundamental principles and laws of chemistry. Topics include measurement, atomic and molecular structure, periodicity, chemical reactions, chemical bonding, stoichiometry, thermochemistry, gas laws, and solutions. Upon completion, students should be able to demonstrate an understanding of fundamental chemical laws and concepts as needed in CHM 152. Additional topics include laboratory and chemical safety rules, electromagnetic spectrum, spectrometer, and chromatography. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**CHM 152**                      **General Chemistry II**    College Credit: 4 semester hours  
*Prerequisite: CHM 151*

This course provides a continuation of the study of the fundamental principles and laws of chemistry. Topics include kinetics, equilibrium, ionic and redox equations, acid-base theory, electrochemistry, thermodynamics, introduction to nuclear and organic chemistry, and complex ions. Upon completion, students should be able to demonstrate an understanding of chemical concepts as needed to pursue further study in chemistry and related professional fields. The spectrophotometer, pH meters, solids, liquids, and properties of solutions are covered. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**CIS 110**                      **Introduction to Computers**    Credit Hours: 3 semester hour

This course introduces computer concepts, including fundamental functions and operations of the computer. Topics include identification of hardware components, basic computer operations, security issues, and use of software applications. Upon completion, students should be able to demonstrate an understanding of the role and function of computers and use the computer to solve problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics (Quantitative)

**CIS 111                      Basic PC Literacy**

College Credit: 2 semester hours

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills. *Students can receive high school CTE state articulated credit for Microsoft Word, PowerPoint, and Publisher if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**CIS 115                      Introduction to Programming and Logic**

College Credit: 3 semester hours

*Prerequisites: Meet the college readiness benchmark in mathematics*

This course introduces computer programming and problem solving in a structured program logic environment. Topics include language syntax, data types, program organization, problem solving methods, algorithm design, and logic control structures. Upon completion, students should be able to manage files with operating system commands, use top-down algorithm design, and implement algorithmic solutions in a programming language. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural science/mathematics (Quantitative Option).*

**CJC 111                      Introduction to Criminal Justice**

College Credit: 3 semester hours

This course introduces the components and processes of the criminal justice system. Topics include history, structure, functions, and philosophy of the criminal justice system and their relationship to life in our society. Upon completion, students should be able to define and describe the major system components and their interrelationships and evaluate career options. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement.

**CJC 112                      Criminology**

College Credit: 3 semester hours

This course introduces deviant behavior as it relates to criminal activity. Topics include theories of crime causation; statistical analysis of criminal behavior; past, present, and future social control initiatives; and other related topics. Upon completion, students should be able to explain and discuss various theories of crime causation and societal response.

**CJC 113                      Juvenile Justice**

College Credit: 3 semester hours

This course covers the juvenile justice system and related juvenile issues. Topics include an overview of the juvenile justice system, treatment and prevention programs, special areas and laws unique to juveniles, and other related topics. Upon completion, students should be able to identify/discuss juvenile court structure/procedures, function and jurisdiction of juvenile agencies, processing/detention of juveniles, and case disposition.

**CJC 131                      Criminal Law**

College Credit: 3 semester hours

This course covers the history/evolution/principles and contemporary applications of criminal law. Topics include sources of substantive law, classification of crimes, parties to crime, elements of crimes, matters of criminal

responsibility, and other related topics. Upon completion, students should be able to discuss the sources of law and identify, interpret, and apply the appropriate statutes/elements.

**CJC 132                      Court Procedure & Evidence    College Credit: 3 semester hours**

This course covers judicial structure/process/procedure from incident to disposition, kinds and degrees of evidence, and the rules governing admissibility of evidence in court. Topics include consideration of state and federal courts, arrest, search and seizure laws, exclusionary and statutory rules of evidence, and other related issues. Upon completion, students should be able to identify and discuss procedures necessary to establish a lawful arrest/search, proper judicial procedures, and the admissibility of evidence.

**CJC 141                      Corrections    College Credit: 3 semester hours**

This course covers the history, major philosophies, components, and current practices and problems of the field of corrections. Topics include historical evolution, functions of the various components, alternatives to incarceration, treatment programs, inmate control, and other related topics. Upon completion, students should be able to explain the various components, processes, and functions of the correctional system. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement

**CJC 212                      Ethics & Community Relations    College Credit: 3 semester hours**

This course covers ethical considerations and accepted standards applicable to criminal justice organizations and professionals. Topics include ethical systems; social change, values, and norms; cultural diversity; citizen involvement in criminal justice issues; and other related topics. Upon completion, students should be able to apply ethical considerations to the decision-making process in identifiable criminal justice situations.

**CJC 214                      Victimology    College Credit: 3 semester hours**

This course introduces the study of victims. Emphasis is placed on roles/characteristics of victims, victim interaction with the criminal justice system and society, current victim assistance programs, and other related topics. Upon completion, students should be able to discuss and identify victims, the uniqueness of victims' roles, and current victim assistance programs.

**CJC 221                      Investigative Principles    College Credit: 4 semester hours**

This course introduces the theories and fundamentals of the investigative process. Topics include crime scene/incident processing, information gathering techniques, collection/preservation of evidence, preparation of appropriate reports, court presentations, and other related topics. Upon completion, students should be able to identify, explain, and demonstrate the techniques of the investigative process, report preparation, and courtroom presentation.

**CJC 231                      Constitutional Law    College Credit: 3 semester hours**

The course covers the impact of the Constitution of the United States and its amendments on the criminal justice system. Topics include the structure of the Constitution and its amendments, court decisions pertinent to contemporary criminal justice issues, and other related topics. Upon completion, students should be able to identify/discuss the basic structure of the United States Constitution and the rights/procedures as interpreted by the courts.

**COM 120                      Introduction to Interpersonal Communication    College Credit: 3 semester hours**

This course introduces the practices and principles of interpersonal communication in both dyadic and group settings. Emphasis is placed on the communication process, perception, listening, self-disclosure, speech apprehension, ethics, nonverbal communication, conflict, power, and dysfunctional communication relationships. Upon completion, students should be able to demonstrate interpersonal communication skills, apply basic principles of group discussion, and manage conflict in interpersonal communication situations. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**COM 231 Public Speaking**

College Credit: 3 semester hours

This course provides instruction and experience in preparation and delivery of speeches within a public setting and group discussion. Emphasis is placed on research, preparation, delivery, and evaluation of informative, persuasive, and special occasion public speaking. Upon completion, students should be able to prepare and deliver well-organized speeches and participate in group discussion with appropriate audiovisual support. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**COS 111 Cosmetology Concepts I**

College Credit: 4 semester hours

*Corequisite: COS 112*

This course introduces basic cosmetology concepts. Topics include safety, first aid, sanitation, bacteriology, anatomy, diseases and disorders, hygiene, product knowledge, chemistry, ethics, manicures, and other related topics. Upon completion, students should be able to safely and competently apply cosmetology concepts in the salon setting.

**COS 112 Salon I**

College Credit: 8 semester hours

*Corequisite: COS 111*

This course introduces basic salon services. Topics include scalp treatments, shampooing, rinsing, hair color, design, haircutting, permanent waving, pressing, relaxing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate salon services.

**COS 113 Cosmetology Concepts II**

College Credit: 4 semester hours

*Corequisite: COS 114*

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, chemistry, manicuring, chemical restructuring, and hair coloring. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 114 Salon II**

College Credit: 8 semester hours

*Corequisite: COS 113*

This course provides experience in a simulated salon setting. Topics include basic skin care, manicuring, nail application, scalp treatments, shampooing, rinsing, hair color, design, haircutting, chemical restructuring, pressing, wigs, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 115 Cosmetology Concepts III**

College Credit: 4 semester hours

*Corequisite: COS 116*

This course covers more comprehensive cosmetology concepts. Topics include safety, product knowledge, salon management, salesmanship, skin care, electricity/light therapy, wigs, thermal hair styling, lash and brow tinting, superfluous hair removal, and other related topics. Upon completion, students should be able to safely and competently apply these cosmetology concepts in the salon setting.

**COS 116 Salon III**

College Credit: 4 semester hours

*Corequisite: COS 115*

This course provides comprehensive experience in a simulated salon setting. Emphasis is placed on intermediate-level of skin care, manicuring, scalp treatments, shampooing, hair color, design, haircutting, chemical restructuring, pressing, and other related topics. Upon completion, students should be able to safely and competently demonstrate these salon services.

**COS 121 Manicure/Nail Technology I**

College Credit: 6 semester hours

This course covers techniques of nail technology, hand and arm surface manipulation, and recognition of nail diseases and disorders. Topics include OSHA/safety, sanitation, bacteriology, product knowledge, salesmanship, manicures, artificial applications, pedicures, surface manipulation, and other related topics. Upon completion, students should be able to safely and competently perform nail care, including manicures, pedicures, surface manipulations, decorating and artificial applications in a salon setting.

**COS 222 Manicure/Nail Technology II**

College Credit: 6 semester hours

This course covers advanced techniques of nail technology and hand and arm surface manipulation. Topics include OSHA/safety, product knowledge, customer service, salesmanship, artificial applications, nail art, and other related topics. Upon completion, students should be able to demonstrate competence necessary for the licensing examination, including advanced nail care, artificial enhancements, and decorations.

**COS 223 Contemporary Hair Coloring**

College Credit: 2 semester hours

*Prerequisite: COS 111 and COS 112*

This course covers basic color concepts, hair coloring problems, and application techniques. Topics include color theory, terminology, contemporary techniques, product knowledge, and other related topics. Upon completion, students should be able to identify a client's color needs and safely and competently perform color applications and correct problems.

**CSC 134 C++ Programming**

College Credit: 3 semester hours

This course introduces computer programming using the C++ programming language with object-oriented programming principles. Emphasis is placed on event-driven programming methods, including creating and manipulating objects, classes, and using object-oriented tools such as the class debugger. Upon completion, students should be able to design, code, test and debug at a beginning level.

**CTI 110 Web, Program, & DB Foundation**

College Credit: 3 semester hours

This course covers the introduction of the tools and resources available to students in programming, mark-up language and services on the Internet. Topics include standard mark-up language Internet services, creating web pages, using search engines, file transfer programs; and database design and creation with DBMS products. Upon completion students should be able to demonstrate knowledge of programming tools, deploy a web-site with mark-up tools, and create a simple database table.

**CTI 120 Network & Security Foundation**

College Credit: 3 semester hours

This course introduces students to the Network concepts, including networking terminology and protocols, local and wide area networks, and network standards. Emphasis is placed on securing information systems and the



various implementation policies. Upon completion, students should be able to perform basic tasks related to networking mathematics, terminology, media and protocols.

**CTS 115                    Information Systems Business Concept                    College Credit: 3 semester hours**

The course introduces the role of IT in managing business processes and the need for business process and IT alignment. Emphasis is placed on industry need for understanding business challenges and developing/managing information systems to contribute to the decision making process based on these challenges. Upon completion, students should be able to demonstrate knowledge of the 'hybrid business manager' and the potential offered by new technology and systems. *This course has been approved to satisfy the Comprehensive Articulation Agreement for transferability as a pre-major and/or elective course requirement.*

**CTS 120                    Hardware/Software Support                    College Credit: 3 semester hours**

*Local Prerequisite: CIS 110 or CIS 111*

This course covers the basic hardware of a personal computer, including installation, operations and interactions with software. Topics include component identification, memory-system, peripheral installation and configuration, preventive maintenance, hardware diagnostics/repair, installation and optimization of system software, commercial programs, system configuration, and device-drivers. Upon completion, students should be able to select appropriate computer equipment and software, upgrade/maintain existing equipment and software, and troubleshoot/repair non-functioning personal computers.

**CTS 220                    Advanced Hardware Software Support                    College Credit: 3 semester hours**

*Prerequisite: CTS 120*

This course provides advanced knowledge and competencies in hardware and operating system technologies for computer technicians to support personal computers. Emphasis is placed on: configuring and upgrading; diagnosis and troubleshooting; as well as preventive maintenance of hardware and system software. Upon completion, students should be able to install, configure, diagnose, perform preventive maintenance, and maintain basic networking on personal computers.

**CTS 285                    System Analysis and Design                    College Credit: 3 semester hours**

This course introduces established and evolving methodologies for the analysis, design, and development of an information system. Emphasis is placed on system characteristics, managing projects, prototyping, CASE/OOM tools, and systems development life cycle phases. Upon completion, students should be able to analyze a problem and design an appropriate solution using a combination of tools and techniques.

**CUL 110                    Sanitation & Safety                    College Credit: 2 semester hours**

This course introduces the basic principles of sanitation and safety relative to the hospitality industry. Topics include personal hygiene, sanitation and safety regulations, use and care of equipment, the principles of food-borne illness, and other related topics. Upon completion, students should be able to demonstrate an understanding of the content necessary for successful completion of a nationally recognized food/safety/sanitation exam. *Students can receive high school CTE state articulated credit for Foods II-Enterprise if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**CUL 140                    Culinary Skills I                    College Credit: 5 semester hours**

*Corequisite: CUL 110*

This course introduces the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on recipe conversion, measurements, terminology, classical knife cuts, safe

food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to exhibit the basic cooking skills used in the foodservice industry.

**CUL 140A Culinary Skills I Lab** College Credit: 1 semester hour

This course provides laboratory experience for enhancing student skills in the fundamental concepts, skills and techniques in basic cookery, and moist, dry and combination heat. Emphasis is placed on practical experiences including recipe conversion, measurements, terminology, classical knife cuts, safe food/equipment handling, flavorings/seasonings, stocks/sauces/soups, and related topics. Upon completion, students should be able to demonstrate competency in the basic cooking skills used in the foodservice industry.

**CUL 170 Garde Manager I** College Credit: 3 semester hours  
*Corequisite: CUL 110*

This course introduces basic cold food preparation techniques and pantry production. Topics include salads, sandwiches, appetizers, dressings, basic garnishes, cheeses, cold sauces, and related food items. Upon completion, students should be able to present a cold food display and exhibit an understanding of the cold kitchen and its related terminology.

**CUL 240 Culinary Skills II** College Credit: 5 semester hours  
*Prerequisites: CUL 110 and CUL 140*

This course is designed to further students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on meat identification/fabrication, butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and quantity food preparation. Upon completion, students should be able to plan, execute, and successfully serve entrees with complementary side items.

**CUL 240A Culinary Skills II Lab** College Credit: 1 semester hour

This course provides a laboratory experience for furthering students' knowledge of the fundamental concepts, skills, and techniques involved in basic cookery. Emphasis is placed on practical applications of meat identification/fabrication; butchery and cooking techniques/methods; appropriate vegetable/starch accompaniments; compound sauces; plate presentation; breakfast cookery; and food preparation. Upon completion, students should be able to demonstrate a basic proficiency in the preparation of entrees and accompaniments.

**DBA 110 Database Concepts** College Credit: 3 semester hours

This course introduces database design and creation using a DBMS product. Emphasis is placed on data dictionaries, normalization, data integrity, data modeling, and creation of simple tables, queries, reports, and forms. Upon completion, students should be able to design and implement normalized database structures by creating simple database tables, queries, reports, and forms.

**DDF 211 Design Process I** College Credit: 4 semester hours

This course emphasizes design processes for finished products. Topics include data collection from manuals and handbooks, efficient use of materials, design sketching, specifications, and vendor selection. Upon completion, students should be able to research and plan the design process for a finished product.

**DEN 100 Basic Orofacial Anatomy** College Credit: 2 semester hours



This course introduces advanced CAD applications. Emphasis is placed upon advanced applications of CAD skills. Upon completion, students should be able to use advanced CAD applications to generate and manage data.

**DFT 154 Introduction to Solid Modeling**

College Credit: 3 semester hours

*Local Prerequisite: DFT 151*

This course is an introduction to basic three-dimensional solid modeling and design software. Topics include basic design, creation, editing, rendering, and analysis of solid models and creation of multi view drawings. Upon completion, students should be able to use design techniques to create, edit, render, and generate a multi view drawing.

**DFT 170 Engineering Graphics**

College Credit: 3 semester hours

This course introduces basic engineering graphics skills and applications. Topics include sketching, selection and use of current methods and tools, and the use of engineering graphics applications. Upon completion, students should be able to demonstrate an understanding of basic engineering graphics principles and practices. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**DFT 211 Gears, Cams, & Pulleys**

College Credit: 2 semester hours

*Prerequisites: Take one set: (1) DFT 111 and MAT 121; (2) DFT 111 and MAT 171*

This course introduces the principles of motion transfer. Topics include gears, cams, pulleys, and drive components. Upon completion, students should be able to solve problems and produce drawings dealing with ratios.

**DFT 254 Intermediate Solid Model/Render**

College Credit: 3 semester hours

*Prerequisites: DFT 154*

This course presents a continuation of basic three-dimensional solid modeling and design software. Topics include advanced study of parametric design, creation, editing, rendering and analysis of solid model assemblies, and multiview drawing generation. Upon completion, students should be able to use parametric design techniques to create and analyze the engineering design properties of a model assembly.

**ECO 251 Principles of Microeconomics**

College Credit: 3 semester hours

This course introduces economic analysis of individual, business, and industry in the market economy. Topics include the price mechanism, supply and demand, optimizing economic behavior, costs and revenue, market structures, factor markets, income distribution, market failure, and government intervention. Upon completion, students should be able to identify and evaluate consumer and business alternatives in order to efficiently achieve economic objectives. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**ECO 252 Principles of Macroeconomics**

College Credit: 3 semester hours

This course introduces economic analysis of aggregate employment, income, and prices. Topics include major schools of economic thought; aggregate supply and demand; economic measures, fluctuations, and growth; money and banking; stabilization techniques; and international trade. Upon completion, students should be able to evaluate national economic components, conditions, and alternatives for achieving socioeconomic goals. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**EDU 119                    Introduction to Early Childhood Education                    College Credit: 4 semester hours**

This course covers the foundations of the education profession, the diverse educational settings for young children, professionalism and planning developmentally appropriate programs for all children. Topics include historical foundations, program types, career options, professionalism and creating inclusive environments and curriculum responsive to the needs of all children and families. Upon completion, students should be able to design career plans and develop schedules, environments and activity plans appropriate for all children. *Students can receive high school CTE state articulated credit for Early Childhood Education I and II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**EDU 131                    Children, Family, and Community                    College Credit: 3 semester hours**

This course covers the development of partnerships between culturally and linguistically diverse families, children, schools and communities. Emphasis is placed on developing skills and identifying benefits for establishing, supporting, and maintaining respectful, collaborative relationships between diverse families, programs/schools, and community agencies/resources. Upon completion, students should be able to explain appropriate relationships between families, educators, and professionals that enhance development and educational experiences of all children.

**EDU 144                    Child Development I                    College Credit: 3 semester hours**

This course includes the theories of child development, needs, milestones, and factors that influence development, from conception through approximately 36 months. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.

**EDU 145                    Child Development II                    College Credit: 3 semester hours**

This course includes the theories of child development, needs, milestones, and factors that influence development, from preschool through middle childhood. Emphasis is placed on developmental sequences in physical/motor, emotional/social, cognitive, and language domains and the impact of multiple influences on development and learning. Upon completion, students should be able to compare/contrast typical/atypical developmental characteristics, explain environmental factors that impact development, and identify strategies for enhancing development.

**EDU 146                    Child Guidance                    College Credit: 3 semester hours**

This course introduces principles and practical techniques including the design of learning environments for providing developmentally appropriate guidance for all children, including those at risk. Emphasis is placed on observation skills, cultural influences, underlying causes of behavior, appropriate expectations, development of self-control and the role of communication and guidance. Upon completion, students should be able to demonstrate direct/indirect strategies for preventing problem behaviors, teaching appropriate/acceptable behaviors, negotiation, setting limits and recognizing at risk behaviors.

**EDU 151                    Creative Activities                    College Credit: 3 semester hours**

This course covers planning, creation and adaptation of developmentally supportive learning environments with attention to curriculum, interactions, teaching practices and learning materials. Emphasis is placed on creating and adapting integrated, meaningful, challenging and engaging developmentally supportive learning experiences in art,

music, movement and dramatics for all children. Upon completion, students should be able to create, adapt, implement and evaluate developmentally supportive learning materials, experiences and environments.

**EDU 153                    Health, Safety, and Nutrition                    College Credit: 3 semester hours**

This course covers promoting and maintaining the health and well-being of all children. Topics include health and nutritional guidelines, common childhood illnesses, maintaining safe and healthy learning environments, recognition and reporting of abuse and neglect and state regulations. Upon completion, students should be able to demonstrate knowledge of health, safety, and nutritional needs, safe learning environments, and adhere to state regulations.

**EDU 221                    Students with Exceptionalities                    College Credit: 3 semester hours**

*Prerequisites: EDU 144 and EDU 145*

This course introduces children with exceptionalities, their families, support services, inclusive/diverse settings, and educational/family plans based on the foundations of child development. Emphasis is placed on the characteristics of exceptionalities, observation and assessment of children, strategies for adapting the learning environment, and identification of community resources. Upon completion, students should be able to recognize diverse abilities, describe the referral process, and depict collaboration with families/professionals to plan/implement, and promote best practice.

**EDU 234                    Infant, Toddlers, and Twos                    College Credit: 3 semester hours**

This course covers the unique needs and rapid changes that occur in the first three years of life and the inter-related factors that influence development. Emphasis is placed on recognizing and supporting developmental milestones through purposeful strategies, responsive care routines and identifying elements of quality, inclusive early care and education. Upon completion, students should be able to demonstrate respectful relationships that provide a foundation for healthy infant/toddler/twos development, plan/select activities/materials, and partner with diverse families.

**EGR 131                    Introduction to Electronics Technology                    College Credit: 2 semester hours**

This course introduces the basic skills required for electrical/electronics technicians. Topics include soldering/desoldering, safety practices, test equipment, scientific calculators, AWG wire table, the resistor color code, electronic devices, problem solving, and use of hand tools. Upon completion, students should be able to solder/desolder, operate test equipment, apply problem solving techniques, and use a scientific calculator.

**EGR 150                    Introduction to Engineering                    College Credit: 2 semester hours**

This course is an overview of the engineering profession. Topics include goal setting and career assessment, ethics, public safety, the engineering method and design process, written and oral communication, interpersonal skills and team building, and computer applications. Upon completion, students should be able to understand the engineering process, the engineering profession, and utilize college resources to meet their educational goals. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**ELC 111                    Introduction to Electricity                    College Credit: 3 semester hours**

This course introduces the fundamental concepts of electricity and test equipment to non-electrical/electronics majors. Topics include basic DC and AC principles (voltage, resistance, current, impedance); components (resistors, inductors, and capacitors); power; and operation of test equipment. Upon completion, students should be able to construct and analyze simple DC and AC circuits using electrical test equipment.

**ELC 112                  DC/AC Electricity                                  College Credit: 5 semester hours**

This course introduces the fundamental concepts of and computations related to DC/AC electricity. Emphasis is placed on DC/AC circuits, components, operation of test equipment; and other related topics. Upon completion, students should be able to construct, verify, and analyze simple DC/AC circuits.

**ELC 127                  Software for Technicians                                  College Credit: 2 semester hours**

This course introduces computer software which can be used to solve electrical/electronics problems. Topics include electrical/electronics calculations and applications. Upon completion, students should be able to utilize a personal computer for electrical/electronics-related applications.

**ELC 128                  Introduction to PLC                                  College Credit: 3 semester hours**

This course introduces the programmable logic controller (PLC) and its associated applications. Topics include ladder logic diagrams, input/output modules, power supplies, surge protection, selection/installation of controllers, and interfacing of controllers with equipment. Upon completion, students should be able to install PLC systems and create simple programs.

**ELC 131                  DC/AC Circuit Analysis                                  College Credit: 5 semester hours**

*Local Corequisite: MAT 121 or MAT 171*

This course introduces DC and AC electricity with an emphasis on circuit analysis, measurements, and operation of test equipment. Topics include DC and AC principles, circuit analysis laws and theorems, components, test equipment operation, circuit simulation, and other related topics. Upon completion, students should be able to interpret circuit schematics; design, construct, verify, and analyze DC/AC circuits; and properly use test equipment.

**ELC 131A                  Circuit Analysis I Lab                                  College Credit: 1 semester hour**

*Corequisite: ELC 131*

This course provides laboratory assignments as applied to fundamental principles of DC/AC electricity. Emphasis is placed on measurements and evaluation of electrical components, devices and circuits. Upon completion, the students will gain hands-on experience by measuring voltage, current, and opposition to current flow utilizing various meters and test equipment.

**ELC 220                  Photovoltaic Systems Technologies                                  College Credit: 3 semester hours**

This course introduces the concepts, tools, techniques, and materials needed to understand systems that convert solar energy into electricity with photovoltaic (PV) technologies. Topics include site analysis for system integration, building codes, and advances in photovoltaic technology. Upon completion, students should be able to demonstrate an understanding of the principles of photovoltaic technology and current applications.

**ELN 131                  Semiconductor Applications                                  College Credit: 4 semester hours**

*Local Corequisite: ELC 112 or ELC 131*

This course introduces the characteristics and applications of semiconductor devices and circuits. Emphasis is placed on analysis, selection, biasing, and applications. Upon completion, students should be able to construct, analyze, verify, and troubleshoot analog circuits using appropriate techniques and test equipment.

**ELN 132            Linear IC Applications**

College Credit: 4 semester hours

*Local Prerequisite: ELN 131 or ELC 140*

This course introduces the characteristics and applications of linear integrated circuits. Topics include op-amp circuits, waveform generators, active filters, IC voltage regulators, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot linear integrated circuits using appropriate techniques and test equipment.

**ELN 133            Digital Electronics**

College Credit: 4 semester hours

This course covers combinational and sequential logic circuits. Topics include number systems, Boolean algebra, logic families, medium scale integration (MSI) and large scale integration (LSI) circuits, analog to digital (AD) and digital to analog (DA) conversion, and other related topics. Upon completion, students should be able to construct, analyze, verify, and troubleshoot digital circuits using appropriate techniques and test equipment.

**ENG 102            Applied Communications II**

College Credit: 3 semester hours

*Prerequisites: Must meet college readiness benchmark for English and reading*

This course is designed to enhance writing and speaking skills for the workplace. Emphasis is placed on generating short writings such as job application documents, memoranda, and reports and developing interpersonal communication skills with employees and the public. Upon completion, students should be able to prepare effective, short, and job-related written and oral communications. The computer is used as a writing and design tool for this course. This is a diploma-level course.

**ENG 111            Expository Writing**

College Credit: 3 semester hours

*Prerequisite: Must meet college readiness benchmark for English/reading*

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

**ENG 112            Argument-Based Research**

College Credit: 3 semester hours

*Prerequisite: ENG 111*

This course, the second in a series of two, introduces research techniques, documentation styles, and argumentative strategies. Emphasis is placed on historical developments and their impact on the modern world through religion, politics, economics, and social developments. Upon completion, students should be able to compare and contrast western and non-western cultures. This course has been approved for transfer under the CAA and ICAA as a general education course in English Composition.

**ENG 231            American Literature I**

College Credit: 3 semester hours

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course covers selected works in American literature from its beginnings to 1865. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.



**ENG 232 American Literature II**

College Credit: 3 semester hours

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course covers selected works in American literature from 1865 to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in their historical and cultural contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 241 British Literature I**

College Credit: 3 semester hours

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course covers selected works in British literature from its beginnings to the Romantic Period. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in this historical and cultural contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**ENG 242 British Literature II**

College credit: 3 semester hours

*Prerequisite: Take one: ENG 112, ENG 113, or ENG 114*

This course covers selected works in British literature from the Romantic Period to the present. Emphasis is placed on historical background, cultural context, and literary analysis of selected prose, poetry, and drama. Upon completion, students should be able to interpret, analyze, and respond to literary works in this historical and cultural contexts. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**GEL 111 Introductory Geology**

College Credit: 4 semester hours

This course introduces basic landforms and geological processes. Topics include rocks, minerals, volcanoes, fluvial processes, geological history, plate tectonics, glaciers, and coastal dynamics. Upon completion, students should be able to describe basic geological processes that shape the earth. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**HEA 112 CPR & First Aid**

College Credit: 2 semester hours

This course introduces the basics of emergency first aid treatment. Topics include rescue breathing, CPR, first aid for choking and bleeding, and other first aid procedures. Upon completion, students should be able to demonstrate skills in providing emergency care for the sick and injured until medical help can be obtained. *This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective requirement.*

**HIS 111 World Civilizations I**

College Credit: 3 semester hours

This course introduces world history from the dawn of civilization to the early modern era. Topics include Eurasian, African, American, and Greco-Roman civilizations and Christian, Islamic, and Byzantine cultures. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in pre-modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 112 World Civilizations II**

College Credit: 3 semester hours

This course introduces world history from the early modern era to the present. Topics include the cultures of Africa, Europe, India, China, Japan, and the Americas. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in modern world civilizations. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 131**                      **American History I**    College Credit: 3 semester hours

This course is a survey of American history from pre-history through the Civil War era. Topics include the migrations to the Americas, the colonial and revolutionary periods, the development of the Republic, and the Civil War. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in early American history. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**HIS 132**                      **American History II**    College Credit: 3 semester hours

This course is a survey of American history from the Civil War era to the present. Topics include industrialization, immigration, the Great Depression, the major American wars, the Cold War, and social conflict. Upon completion, students should be able to analyze significant political, socioeconomic, and cultural developments in American history since the Civil War.

**HIT 110**                      **Fundamentals of HIM**    College Credit: 3 semester hours

This course introduces Health Information Management (HIM) and its role in healthcare delivery systems. Topics include standards, regulations and initiatives; payment and reimbursement systems, healthcare providers and disciplines; and electronic health records (EHRs). Upon completion, students should be able to demonstrate an understanding of health information management and healthcare organizations, professions and trends.

**HIT 112**                      **Health Law and Ethics**    College Credit: 3 semester hours

This course covers legislative and regulatory processes, legal terminology, and professional-related and practice-related ethical issues. Topics include confidentiality; privacy and security policies, procedures and monitoring; release of information policies and procedures; and professional-related and practice-related ethical issues. Upon completion, students should be able to apply policies and procedures for access and disclosure of Protected Health Information and apply and promote ethical standards.

**HSC 110**                      **Orientation to Health Careers**    College Credit: 1 semester hour

This course is a survey of health care professions. Topics include professional duties and responsibilities, working environments, and career choices. Upon completion, students should be able to demonstrate an understanding of the health care professions and be prepared to make informed career choices. *Students can receive high school CTE state articulated credit for Health Science II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**\*\*This course is recommended for all Health Science pathway students, although it is not in all of the pathways. Advisor should place students in dual pathway with Nurse Aide if HSC 110 is taken.**

**HSE 110**                      **Introduction to Human Services**    College Credit: 3 semester hours

This course introduces the human services field, including the history, agencies, roles, and careers. Topics include personal/professional characteristics, diverse populations, community resources, disciplines in the field, systems, ethical standards, and major theoretical and treatment approaches. Upon completion, students should be able to identify the knowledge, skills, and roles of the human services worker.

**HSE 112                  Group Process I    College Credit: 2 semester hours**

This course introduces interpersonal concepts and group dynamics. Emphasis is placed on self-awareness facilitated by experiential learning in small groups with analysis of personal experiences and the behavior of others. Upon completion, students should be able to show competence in identifying and explaining how people are influenced by their interactions in group settings.

**HSE 123                  Interviewing Techniques    College Credit: 3 semester hours**

This course covers the purpose, structure, focus, and techniques employed in effective interviewing. Emphasis is placed on observing, attending, listening, responding, recording, and summarizing of personal histories with instructor supervision. Upon completion, students should be able to perform the basic interviewing skills needed to function in the helping relationship.

**HSE 125                  Counseling    College Credit: 3 semester hours**

*Prerequisite: PSY 150*

This course covers the major approaches to psychotherapy and counseling, including theory, characteristics, and techniques. Emphasis is placed on facilitation of self-exploration, problem solving, decision-making, and personal growth. Upon completion, students should be able to understand various theories of counseling and demonstrate counseling techniques.

**HSE 210                  Human Services Issues    Credit Hours: 2 semester hours**

*Local Prerequisite: Successful completion of 12 SHC in the HSE program*

This course covers current issues and trends in the field of human services. Emphasis is placed on contemporary topics with relevance to special issues in a multi-faceted field. Upon completion, students should be able to integrate the knowledge, skills, and experiences gained in classroom and clinical experiences with emerging trends in the field

**HSE 225                  Crisis Intervention    Credit Hours: 3 semester hours**

This course introduces the basic theories and principles of crisis intervention. Emphasis is placed on identifying and demonstrating appropriate and differential techniques for intervening in various crisis situations. Upon completion, students should be able to assess crisis situations and respond appropriately.

**HUM 110                  Technology and Society    College Credit: 3 semester hours**

This course considers technological change from historical, artistic, and philosophical perspectives and its effect on human needs and concerns. Emphasis is placed on the causes and consequences of technological change. Upon completion, students should be able to critically evaluate the implications of technology.

**HYD 110                  Hydraulics/Pneumatics I    College Credit: 3 semester hours**

This course introduces the basic components and functions of hydraulic and pneumatic systems. Topics include standard symbols, pumps, control valves, control assemblies, actuators, FRL, maintenance procedures, and switching and control devices. Upon completion, students should be able to understand the operation of a fluid power system, including design, application, and troubleshooting.

**ISC 110                  Workplace Safety    College Credit: 1 semester hour**

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

**LEO 111 Lasers and Applications**

College Credit: 2 semester hours

*Corequisite: MAT 122*

This course covers the basic principles of laser operations and applications with a particular emphasis on laser safety. Topics include the properties of laser light, laser components, laser beam characteristics, and laser safety. Upon completion, students should be able to make measurements of laser beam characteristics and conduct a safety audit and hazards analysis of a laser facility.

**LIB 110 Introduction to Libraries**

College Credit: 3 semester hours

This course includes the history and future of libraries, a survey of library types, and an overview of library organization, services, and community relationships. Emphasis is placed on societal roles of the library, literary and intellectual freedom, comparisons and contrasts of library types, and the roles of professional organizations. Upon completion, students should be able to discuss literacy and intellectual freedom, describe library organization and compare types of libraries, their materials, and services.

**LIB 111 Library Information Resources and Services**

College Credit: 3 semester hours

This course provides introductory skills for selecting and using general and specialized information resources in print and electronic formats and related copyright issues. Emphasis is placed on selection tools, print and electronic censorship, core collection materials in various disciplines, compiling bibliographies and interpreting and referring reference questions. Upon completion, students should be able to use numerous resources to answer directional and factual questions and to decide when to refer difficult reference questions.

**LIB 112 Library Collection Development and Acquisition**

College Credit: 3 semester hours

This course covers library collection development and acquisitions policies and procedures. Emphasis is placed on evaluating mission statements, needs assessment studies, purchasing materials using selection criteria and tools, and related collection development and acquisitions activities. Upon completion, students should be able to evaluate mission statements, conduct needs assessments using selected criteria, and complete related collection development and acquisitions activities.

**LIB 113 Library Cataloging and Classification**

College Credit: 3 semester hours

This course covers standards and procedures for copy cataloging and types of classification systems. Emphasis is placed on selecting bibliographic records, maintaining and using authority records and the importance of the catalog to the library mission. Upon completion, students should be able to select the appropriate MARC record, search OCLC, and demonstrate an understanding of authority files.

**LIB 114 Library Public Service Operation**

College Credit: 3 semester hours

This course covers effective library orientations, effective patron service, automated circulation systems, statistics and reports, reserves, and security. Emphasis is placed on public relations, problem solving, communication skills, circulation systems and policies, interlibrary loan procedures, shelving and display options. Upon completion, students should be able to deal with diverse patrons, conduct library orientations, compile reports from statistical data, initiate interlibrary loans, and prepare displays.

**LIB 210**                      **Electronic Library Databases**                      College Credit: 3 semester hours

This course covers developing search strategies for using electronic resources in the humanities, social and behavioral sciences, physical and life sciences, and health-related fields. Emphasis is placed on the reference interview, teaching Boolean logic and other search strategies, retrieving and evaluating information, and citing it in APA/MLA style. Upon completion, students should be able to describe methods of information retrieval, use search strategies to teach basic research using databases, and cite sources appropriately.

**LIB 211**                      **Library Program Development**                      College Credit: 3 semester hours

This course covers the purpose of library programs and various methods used for program design, promotion, delivery, and evaluation. Topics include serving library communities through appropriate program activities such as storytelling, puppet shows, book clubs, lectures, reading aloud, workshops, special collections, and outreach. Upon completion, students should be able to prepare, promote, deliver, and evaluate appropriate library programs.

**LIB 212**                      **Library Services/Special Needs**                      College Credit: 3 semester hours

This course covers basic information for serving library users with special needs. Emphasis is placed on ADA guidelines, the location and use of appropriate resources, and accessibility options. Upon completion, students should be able to access appropriate information about ADA guidelines, locate and use appropriate resources, and be aware of accessibility options.

**LIB 213**                      **Cataloging Non-Print Materials**                      College Credit: 3 semester hours

This course continues the study and application of information cataloging practices. Emphasis is placed on cataloging information resources, updating bibliographic materials in databases, an overview of Dublin Core, and nonprint materials cataloging practices. Upon completion, students should be able to catalog nonprint and electronic resources.

**LIB 214**                      **Library Services for Children**                      College Credit: 3 semester hours

This course covers the location, evaluation, acquisition, and presentation of children's materials in libraries. Emphasis is placed on locating, evaluating, acquiring, and presenting children's literature, video and audio materials, and web sites through programs, displays, talks, and instruction. Upon completion, students should be able to locate, evaluate, acquire, and present a wide range of children's materials to library users.

**MAC 111**                      **Machining Technology I**                      College Credit: 6 semester hours

This course introduces machining operations as they relate to the metalworking industry. Topics include machine shop safety, measuring tools, lathes, drilling machines, saws, milling machines, bench grinders, and layout instruments. Upon completion, students should be able to safely perform the basic operations of measuring, layout, drilling, sawing, turning, and milling. *Students can receive high school CTE state articulated credit for Metals Manufacturing Technology I and Metals Manufacturing Technology II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment (BPR 111 and MAC 111 and MAC 151).*

**MAC 112**                      **Machining Technology II**                      College Credit: 6 semester hours

*Local Prerequisite: MAC 111*

This course provides additional instruction and practice in the use of precision measuring tools, lathes, milling machines, and grinders. Emphasis is placed on setup and operation of machine tools including the selection and use of work holding devices, speeds, feeds, cutting tools, and coolants. Upon completion, students should be able

to perform basic procedures on precision grinders and advanced operations of measuring, layout, drilling, sawing, turning, and milling.

**MAC 113 Machining Technology III**

College Credit: 6 semester hours

*Local Prerequisite: MAC 112*

This course provides an introduction to advanced and special machining operations. Emphasis is placed on working to specified tolerances with special and advanced setups. Upon completion, students should be able to produce a part to specifications.

**MAC 124 CNC Milling**

College Credit: 2 semester hours

This course introduces the manual programming, setup, and operation of CNC machining centers. Topics include programming formats, control functions, program editing, part production, and inspection. Upon completion, students should be able to manufacture simple parts using CNC machining centers.

**MAC 151 Machining Calculations**

College Credit: 2 semester hours

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. *Students can receive high school CTE state articulated credit for Metals Manufacturing Technology I and Metals Manufacturing Technology II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment (BPR 111 and MAC 111 and MAC 151).*

**MAC 171 Measure/Material & Safety**

College Credit: 1 semester hour

This course introduces precision measuring instruments, process control and adjustment, inspection, material handling and workplace safety. Topics include properly identifying and handling various measurement instruments and materials, process control, adjustment and improvement, personal protective equipment (PPE) and OSHA safety regulations. Upon completion, students should be able to safely demonstrate effective measurement techniques, identify and handle various materials, and explain safe industry practices.

**MAT 110 Mathematical Measurement**

College Credit: 3 semester hours

*Prerequisite: Must meet college readiness benchmark for mathematics*

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

**MAT 121 Algebra/Trigonometry I**

College Credit: 3 semester hours

*Prerequisite: DMA 010, DMA 020, DMA 030, DMA 040, DMA 050, and DMA 060*

This course provides an integrated approach to technology and the skills required to manipulate, display, and interpret mathematical functions and formulas used in problem solving. Topics include the properties of plane and solid geometry, area and volume, and basic proportion applications; simplification, evaluation, and solving of algebraic equations and inequalities and radical functions; complex numbers; right triangle trigonometry; and systems of equations. Upon completion, students will be able to demonstrate the ability to use mathematics and technology for problem-solving, analyzing and communicating results.

**MAT 122 Algebra/Trigonometry II** College Credit: 3 semester hours

*Prerequisite (take one): MAT 121, MAT 161, MAT 171, or MAT 175*

This course extends the concepts covered in MAT 121 to include additional topics in algebra, function analysis, and trigonometry. Topics include exponential and logarithmic functions, translation and scaling of functions, Sine Law, Cosine Law, vectors and statistics. Upon completion, students should be able to demonstrate an understanding of the use of technology to solve problems and to analyze and communicate results.

**MAT 143 Quantitative Literacy** College Credit: 3 semester hours

*Prerequisite: Must meet college readiness benchmark for Math and English/reading*

This course is designed to engage students in complex and realistic situations involving the mathematical phenomena of quantity, change and relationship, and uncertainty through project- and activity-based assessment. Emphasis is placed on authentic contexts which will introduce the concepts of numeracy, proportional reasoning, dimensional analysis, rates of growth, personal finance, consumer statistics, practical probabilities, and mathematics for citizenship. Upon completion, students should be able to utilize quantitative information as consumers and to make personal, professional, and civic decisions by decoding, interpreting, using, and communicating quantitative information found in modern media and encountered in everyday life.

**MAT 152 Statistical Methods I** College Credit: 4 semester hours

*Prerequisite: Must meet college readiness benchmark for Math and English/reading*

This course provides a project-based approach to introductory statistics with an emphasis on using real-world data and statistical literacy. Topics include descriptive statistics, correlation and regression, basic probability, discrete and continuous probability distributions, confidence intervals and hypothesis testing. Upon completion, students should be able to use appropriate technology to describe important characteristics of a data set, draw inferences about a population from sample data, and interpret and communicate results.

**MAT 171 Precalculus Algebra** College Credit: 4 semester hours

*Prerequisite: Must meet college readiness benchmark for Math and English/reading*

This is the first of two courses designed to emphasize topics, which are fundamental to the study of calculus. Emphasis is placed on equations and inequalities, functions (linear, polynomial, rational), systems of equations and inequalities, and parametric equations. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and predictions. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 172 Precalculus Trigonometry** College Credit: 4 semester hours

*Prerequisite: MAT-171*

This is the second of two courses designed to emphasize topics which are fundamental to the study of calculus. Emphasis is placed on properties and applications of transcendental functions and their graphs, right and oblique triangle trigonometry, conic sections, vectors, and polar coordinates. Upon completion, students should be able to solve practical problems and use appropriate models for analysis and prediction. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 263 Brief Calculus** College Credit: 4 semester hours

*Prerequisite: MAT-171*

This course is designed for students needing one semester of calculus. Topics include functions, graphing, differentiation, and integration with emphasis on applications drawn from business, economics, and biological and behavioral sciences. Upon completion, students should be able to demonstrate an understanding of the use of

basic calculus and technology to solve problems and to analyze and communicate results. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 271          Calculus I**

College Credit: 4 semester hours

*Prerequisite: MAT-172 or other. See your Advisor for more information.*

This course covers in-depth the differential calculus portion of a three-course calculus sequence. Topics include limits, continuity, derivatives, and integrals of algebraic and transcendental functions of one variable with applications. Upon completion, students should be able to apply differentiation and integration techniques to algebraic and transcendental functions. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MAT 272          Calculus II**

College Credit: 4 semester hours

*Prerequisite: MAT-271*

This course is designed to develop advanced topics of differential and integral calculus. Emphasis is placed on the applications of definite integrals, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, parametric equations, polar coordinates, and differential equations. Upon completion, students should be able to select and use appropriate models and techniques for finding solutions to integral-related problems with and without technology. This course has been approved for transfer under the CAA and ICAA as a general education course in Mathematics.

**MCM 111          Motorcycle Mechanics**

College Credit: 7 semester hours

This course covers the proper nomenclature of parts and components of motorcycles, ATVs, and personal watercraft. Topics include theory of operation, differences of operation, preventive maintenance, and operating principles involved in servicing and repairing motorcycles, ATVs, and personal watercraft. Upon completion, students should be able to perform basic inspection, diagnosis, repair, and/or adjustment of motorcycles, ATVs, and personal watercraft.

**MCM 114          Motorcycle Fuel Systems**

College Credit: 5 semester hours

This course introduces various types of fuels and fuel systems used in motorcycle internal combustion engines. Emphasis is placed on the theory and principles of carburetion and fuel injection. Upon completion, students should be able to service, disassemble, inspect, reassemble, and adjust to manufacturers' specifications the components of various fuel systems.

**MCM 115          Motorcycle Chassis**

College Credit: 3 semester hours

This course covers chassis adjustments, components, and types and uses of frames and suspensions. Emphasis is placed on proper and safe use of tools and equipment in servicing and maintaining motorcycle chassis. Upon completion, students should be able to service and repair motorcycle chassis systems and suspension components.

**MCM 117          Motorcycle Dyno Tuning I**

College Credit: 3 semester hours

This course introduces the theory and safe operation of motorcycle chassis dynamometers. Topics include types of dynamometers, theory of operation, differences of operations, preventative maintenance and safe operating principles involved in motorcycle dynamometer tuning and diagnostics. Upon completions, students should be able to safely use motorcycle dynamometers to measure horsepower and torque, to optimize air-fuel metering and exhaust-flow, and to diagnose performance problems.



**MCM 122      Motorcycle Engines**

College Credit: 5 semester hours

This course covers the construction and operation of components in internal combustion engines used in modern motorcycles. Topics include two- and four-cycle engines, power trains, and final drive systems. Upon completion, students should be able to disassemble, inspect, measure, reassemble, and operationally test two- and four-cycle motorcycle engines.

**MCM 217      Motorcycle Dyno Tuning II**

College Credit: 3 semester hours

*Prerequisites: MCM 117*

This course provides advanced instruction in motorcycle dynamometers that are utilized in high performance engine tuning. Topics include safe modification and customization of components and their effect on horsepower, torque, airfuel metering, exhaust flow, fuel economy, acceleration and speed. Upon completions, students will safely use motorcycle dynamometers to optimize performance when customizing motorcycles and/or ATV's for racing and high performance street or off-road use.

**MEC 111      Machine Processes I**

College Credit: 3 semester hours

This course introduces shop safety, hand tools, machine processes, measuring instruments, and the operation of machine shop equipment. Topics include use and care of tools, safety, measuring tools, and the basic setup and operation of common machine tools. Upon completion, students should be able to manufacture simple parts to specified tolerance.

**MEC 142      Physical Metallurgy**

College Credit: 2 semester hours

This course covers the heat treating of metals. Emphasis is placed on the effects of hardening, tempering, and annealing on the structure and physical properties of metals. Upon completion, students should be able to heat treat materials.

**MEC 161      Manufacturing Processes I**

College Credit: 3 semester hours

This course provides the fundamental principles of value-added processing of materials into usable forms for the customer. Topics include material properties and traditional and nontraditional manufacturing processes. Upon completion, students should be able to specify appropriate manufacturing processing for common engineering materials.

**MEC 161A      Manufacturing Processes I**

College Credit: 1 semester hour

This course is a laboratory for MEC 161. Emphasis is placed on experiences that enhance the materials presented in MEC 161. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in MEC 161.

**MED 110      Orientation to Medical Assisting**

College Credit: 1 semester hour

This course covers the history of medicine and the role of the medical assistant in the healthcare setting. Emphasis is placed on professionalism, communication, attitude, behaviors, and duties in the medical environment. Upon completion, students should be able to project a positive attitude and promote the profession of medical assisting.

**MED 118      Medical Law and Ethics**

College Credit: 2 semester hours

This course covers legal relationships of physicians and patients, contractual agreements, professional liability, malpractice, medical practice acts, informed consent, and bioethical issues. Emphasis is placed on legal terms, professional attitudes, and the principles and basic concepts of ethics and laws involved in providing medical services. Upon completion, students should be able to meet the legal and ethical responsibilities of a multi-skilled health professional.

**MED 121            Medical Terminology I**

College Credit: 3 semester hours

This course introduces prefixes, suffixes, and word roots used in the language of medicine. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. *Students can receive high school CTE state articulated credit for Health Science I if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**MED 122            Medical Terminology II**

College Credit: 3 semester hours

*Prerequisite: MED 121*

This course is the second in a series of medical terminology courses. Topics include medical vocabulary and the terms that relate to the anatomy, physiology, pathological conditions, and treatment of selected systems. Upon completion, students should be able to pronounce, spell, and define medical terms as related to selected body systems and their pathological disorders. *Students can receive high school CTE state articulated credit for Health Science I if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**MED 130            Administrative Office Procedures I**

College Credit: 2 semester hours

This course introduces medical office administrative procedures. Topics include appointment processing, written and oral communications, medical records, patient orientation, and safety. Upon completion, students should be able to perform basic administrative skills within the medical environment.

**MED 131            Administrative Office Procedures II**

College Credit: 2 semester hours

*Local Prerequisite: MED 130*

This course provides medical office procedures in both economic and management skills. Topics include physical plant maintenance, equipment and supplies, liability coverage, medical economics, and introductory insurance procedures. Upon completion, students should be able to manage the economics of the medical office and supervise personnel.

**MED 140            Exam Room Procedures I**

College Credit: 5 semester hours

This course provides instruction in clinical examining room procedures. Topics include asepsis, infection control, assisting with exams and treatment, patient education, preparation and administration of medications, EKG, vital signs, and medical emergencies. Upon completion, students should be able to demonstrate competence in exam room procedures.

**MED 150            Laboratory Procedures I**

College Credit: 5 semester hours

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 tests, phlebotomy, 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.

**MED 240      Exam Room Procedures II**

College Credit: 5 semester hours

*Prerequisite: MED-140*

This course is designed to expand and build upon skills presented in MED 140. Emphasis is placed on advanced exam room procedures. Upon completion, students should be able to demonstrate enhanced competence in selected exam room procedures.

**MKT 120      Principles of Marketing**

College Credit: 3 semester hours

This course introduces principles and problems of marketing goods and services. Topics include promotion, placement, and pricing strategies for products. Upon completion, students should be able to apply marketing principles in organizational decision-making. *Students can receive high school CTE state articulated credit for Marketing if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**MKT 220      Advertising & Sales Promotion**

College Credit: 3 semester hours

This course covers the elements of advertising and sales promotion in the business environment. Topics include advertising and sales promotion appeals, selection of media, use of advertising and sales promotion as a marketing tool, and means of testing effectiveness. Upon completion, students should be able to demonstrate an understanding of the concepts covered through application.

**MKT 223      Customer Service**

College Credit: 3 semester hours

This course stresses the importance of customer relations in the business world. Emphasis is placed on learning how to respond to complex customer requirements and to efficiently handle stressful situations. Upon completion, students should be able to demonstrate the ability to handle customer relations.

**MKT 232      Social Media Marketing**

College Credit: 4 semester hours

This course is designed to build students' social media marketing skills by utilizing projects that give students hands on experience implementing social media marketing strategies. Topics include integrating different social media technologies into a marketing plan, creating social media marketing campaigns, and applying appropriate social media tools. Upon completion, students should be able to use social media technologies to create and improve marketing efforts for businesses.

**MNT 110      Introduction to Maintenance Procedures**

College Credit: 2 semester hours

This course covers basic maintenance fundamentals for power transmission equipment. Topics include equipment inspection, lubrication, alignment, and other scheduled maintenance procedures. Upon completion, students should be able to demonstrate knowledge of accepted maintenance procedures and practices according to current industry standards.

**MNT 111      Maintenance Practice**

College Credit: 3 semester hours

This course provides in-depth theory and practical applications relating to predictive and preventive maintenance programs. Emphasis is placed on equipment failure analysis, maintenance management software, and techniques such as vibration and infrared analysis. Upon completion, students should be able to demonstrate an understanding of modern analytical and documentation methods.

**MUS 110 Music Appreciation** College Credit: 3 semester hours

This course is a basic survey of the music of the Western world. Emphasis is placed on the elements of music, terminology, composers, form, and style within a historical perspective. Upon completion, students should be able to demonstrate skills in basic listening and understanding of the art of music. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**MUS 112 Introduction to Jazz** College Credit: 3 semester hours

This course introduces the origins and musical components of jazz and the contributions of its major artists. Emphasis is placed on the development of discriminating listening habits, as well as the investigation of the styles and structural forms of the jazz idiom. Upon completion, students should be able to demonstrate skills in listening and understanding this form of American music. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**NAS 101 Nursing Assistant I** College Credit: 6 semester hours

This course introduces basic nursing skills required to provide personal care for patients, residents, or clients in a healthcare setting. Topics include communications, safety, patients' rights, personal care, vital signs, elimination, nutrition, emergencies, rehabilitation, and mental health. Upon completion, students should be able to demonstrate skills necessary to qualify as Nursing Assistant I with the North Carolina Nurse Aide I Registry. *Students can receive high school CTE state articulated credit for Nursing Fundamentals if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**NAS 102 Nursing Assistant II** College Credit: 6 semester hours

This course provides training in selected advanced nursing assistant procedures. Emphasis is placed on sterile techniques, respiratory procedures, catheterizations, wound and trach care, irrigations, and ostomy care. Upon completion, students should be able to demonstrate skills necessary to qualify as a Nursing Assistant II with the North Carolina Board of Nursing.

**NOS 130 Windows Single User** College Credit: 3 semester hours

*Prerequisite: NOS 110 or CET 211*

This course introduces operating system concepts for single-user systems. Topics include hardware management, file and memory management, system configuration/optimization, and utilities. Upon completion, students should be able to perform operating systems functions at the support level in a single-user environment.

**NOS 230 Windows Administration I** College Credit: 3 semester hours

*Prerequisite: NOS 130*

This course covers the installation and administration of a Windows Server network operating system. Topics include managing and maintaining physical and logical devices, access to resources, the server environment, managing users, computers, and groups, and managing/implementing disaster recovery. Upon completion, students should be able to manage and maintain a Windows Server environment.

**NUT 110 Nutrition** College Credit: 3 semester hours

This course covers basic principles of nutrition and their relationship to human health. Topics include meeting nutritional needs of healthy people, menu modification based on special dietary needs, food habits, and contemporary problems associated with nutrition. Upon completion, students should be able to apply basic nutritional concepts as they relate to health and well-being.



This course introduces medical systems used to process information in the automated office. Topics include traditional and electronic information resources, storing and retrieving information, and the billing cycle. Upon completion, students should be able to use the computer accurately to schedule, bill, update, and make corrections.

**OST 247                      Procedural Coding    College Credit: 3 semester hours**

This course provides in-depth coverage of procedural coding. Emphasis is placed on CPT and HCPCS coding systems. Upon completion, students should be able to properly code procedures and services performed in a medical facility.

**OST 248                      Diagnostic Coding    College Credit: 3 semester hours**

*Prerequisite: MED 121 or OST 141*

This course provides an in-depth study of diagnostic coding. Emphasis is placed on ICD coding system. Upon completion, students should be able to properly code diagnoses in a medical facility.

**OST 289                      Administrative Office Management    College Credit: 3 semester hours**

*Prerequisites: Take One Set - Set 1: OST 134 and OST 164; Set 2: OST 136 and OST 164*

This course is designed to be a capstone course for the office professional and provides a working knowledge of modern office procedures. Emphasis is placed on scheduling, telephone procedures, travel arrangements, event planning, office design, and ergonomics. Upon completion, students should be able to adapt in an office environment.

**PED 117                      Weight Training I    College Credit: 1 semester hour**

This course introduces the basics of weight training. Emphasis is placed on developing muscular strength, muscular endurance, and muscle tone. Upon completion, students should be able to establish and implement a personal weight training program. *This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective requirement.*

**PHI 215                      Philosophical Issues    College Credit: 3 semester hours**

*Prerequisite: ENG 111*

This course introduces fundamental issues in philosophy considering the views of classical and contemporary philosophers. Emphasis is placed on knowledge and belief, appearance and reality, determinism and free will, faith and reason, and justice and inequality. Upon completion, students should be able to identify, analyze, and critique the philosophical components of an issue. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHI 240                      Introduction to Ethics    College Credit: 3 semester hours**

*Prerequisite: ENG 111*

This course introduces theories about the nature and foundations of moral judgments and applications to contemporary moral issues. Emphasis is placed on utilitarianism, rule-based ethics, existentialism, relativism versus objectivism, and egoism. Upon completion, students should be able to apply various ethical theories to individual moral issues such as euthanasia, abortion, crime and punishment, and justice. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**PHY 110          Conceptual Physics**

College Credit: 4 semester hours

*Corequisite: PHY 110A*

This course provides a conceptually-based exposure to the fundamental principles and processes of the physical world. Topics include basic concepts of motion, forces, energy, heat, electricity, magnetism, and the structure of matter and the universe. Upon completion, students should be able to describe examples and applications of the principles studied. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**PHY 110A          Conceptual Physics Laboratory**

College Credit: 4 semester hours

*Corequisite: PHY 110*

This course is a laboratory for PHY 110. Emphasis is placed on laboratory experiences that enhance materials presented in PHY 110. Upon completion, students should be able to apply the laboratory experiences to the concepts presented in PHY 110. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**PHY 131          Physics-Mechanics**

College Credit: 4 semester hours

*Prerequisite (take one): MAT 121, MAT 161, MAT 171, or MAT 175*

This algebra/trigonometry-based course introduces fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem solving methods, graphical analysis, vectors, motion, forces, Newton's laws of motion, work, energy, power, momentum, and properties of matter. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 133          Physics-Sound and Light**

College Credit: 4 semester hours

*Prerequisite: PHY 131*

This algebra/trigonometry-based course is a study of fundamental physical concepts as applied to engineering technology fields. Topics include systems of units, problem solving methods, graphical analysis, wave motion, sound, light, and modern physics. Upon completion, students should be able to apply the principles studied to applications in engineering technology fields.

**PHY 151          College Physics I**

College Credit: 4 semester hours

*Prerequisite: Take one: MAT 161, MAT 171, or MAT 175*

This course uses algebra/trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include units and measurement, vectors, linear kinematics and dynamics, energy, power, momentum, fluid mechanics, and heat. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem solving ability for the topics covered. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.

**PHY 152          College Physics II**

College Credit: 4 semester hours

*Prerequisite: PHY 151*

This course uses algebra/trigonometry-based mathematical models to introduce the fundamental concepts that describe the physical world. Topics include electrostatic forces, electric fields, electric potentials, direct-current circuits, magnetostatic forces, magnetic fields, electromagnetic induction, alternating-current circuits, and light. Upon completion, students should be able to demonstrate an understanding of the principles involved and display analytical problem solving ability for the topics covered. This course has been approved for transfer under the CAA and ICAA as a general education course in Natural Science.





This course introduces the student to the aspects of personal (one-on-one) training. Topics include training systems, marketing, and program development. Upon completion, students should be able to demonstrate personal training techniques and competencies of same.

**PSY 115                      Stress Management**

Credit Hours: 2 semester hours

This course covers stressors and techniques for stress management. Topics include anger, assertiveness, adaptation to change, conflict, coping skills, identification of stressors, time management, and the physiology of stress and burnout. Upon completion, students should be able to demonstrate an understanding of the effective management of stress.

**PSY 150                      General Psychology**

College Credit: 3 semester hours

This course provides an overview of the scientific study of human behavior. Topics include history, methodology, biopsychology, sensation, perception, learning, motivation, cognition, abnormal behavior, personality theory, social psychology, and other relevant topics. Upon completion, students should be able to demonstrate a basic knowledge of the science of psychology. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**PSY 241                      Developmental Psychology**

College Credit: 3 semester hours

*Prerequisite: PSY 150*

This course is a study of human growth and development. Emphasis is placed on major theories and perspectives as they relate to the physical, cognitive, and psychosocial aspects of development from conception to death. Upon completion, students should be able to demonstrate knowledge of development across the life span. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**SEC 110                      Security Concepts**

College Credit: 3 semester hours

This course introduces the concepts and issues related to securing information systems and the development of policies to implement information security controls. Topics include the historical view of networking and security, security issues, trends, security resources, and the role of policy, people, and processes in information security. Upon completion, students should be able to identify information security risks, create an information security policy, and identify processes to implement and enforce policy.

**SEL 293                      Selected Topics in \_\_\_\_\_**

College Credit: 3 semester hours

This course provides an opportunity to explore areas of current interest in specific program or discipline areas. Emphasis is placed on the subject matter appropriate to the program or discipline. Upon completion, students should be able to demonstrate an understanding of the specific area of study.

**SOC 210                      Introduction to Sociology**

College Credit: 3 semester hours

This course introduces the scientific study of human society, culture, and social interactions. Topics include socialization, research methods, diversity and inequality, cooperation and conflict, social change, social institutions, and organizations. Upon completion, students should be able to demonstrate knowledge of sociological concepts as they apply to the interplay among individuals, groups, and societies. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**SOC 213                      Sociology of the Family**

College Credit: 3 semester hours

This course covers the institution of the family and other intimate relationships. Emphasis is placed on mate selection, gender roles, sexuality, communication, power and conflict, parenthood, diverse lifestyles, divorce and remarriage, and economic issues. Upon completion, students should be able to analyze the family as a social institution and the social forces which influence its development and change. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**SOC 220                      Sociology Problems    College Credit: 3 semester hours**

This course provides an in-depth study of current social problems. Emphasis is placed on causes, consequences, and 214 possible solutions to problems associated with families, schools, workplaces, communities, and the environment. Upon completion, students should be able to recognize, define, analyze, and propose solutions to these problems. This course has been approved for transfer under the CAA and ICAA as a general education course in Social/Behavioral Sciences.

**SOC 232                      Social Context of Aging    College Credit: 3 semester hours**

This course provides an overview of the social implications of the aging process. Emphasis is placed on the roles of older adults within families, work and economics, politics, religion, education, and health care. Upon completion, students should be able to identify and analyze changing perceptions, diverse lifestyles, and social and cultural realities of older adults. This course has been approved for transfer under the CAA and ICAA as a premajor and/or elective course requirement

**SOC 240                      Social Psychology    College Credit: 3 semester hours**

This course examines the influence of culture and social groups on individual behavior and personality. Emphasis is placed on the process of socialization, communication, conformity, deviance, interpersonal attraction, intimacy, race and ethnicity, small group experiences, and social movements. Upon completion, students should be able to identify and analyze cultural and social forces that influence the individual in a society.

**SPA 111                      Elementary Spanish I    College Credit: 3 semester hours**

This course introduces the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the development of basic listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with grammatical accuracy to spoken and written Spanish and demonstrate cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**SPA 112                      Elementary Spanish II    College Credit: 3 semester hours**

*Prerequisite: SPA 111*

This course is a continuation of SPA 111 focusing on the fundamental elements of the Spanish language within a cultural context. Emphasis is placed on the progressive development of listening, speaking, reading, and writing skills. Upon completion, students should be able to comprehend and respond with increasing proficiency to spoken and written Spanish and demonstrate further cultural awareness. This course has been approved for transfer under the CAA and ICAA as a general education course in Humanities/Fine Arts.

**SST 110                      Intro to Sustainability    College Credit: 3 semester hours**

This course introduces sustainability issues and individual contributions toward environmental sustainability. Topics include management processes needed to maximize renewable/nonrenewable energy resources, economics of sustainability, and reduction of environmental impacts. Upon completion, students should be able to discuss sustainability practices and demonstrate an understanding of their effectiveness and impacts.

**SST 120**                    **Energy Use Analysis**    College Credit: 3 semester hours

This course introduces the principles of analyzing energy use, energy auditing tools and techniques, conservation techniques, and calculating energy savings. Topics include building system control theory, calibrating digital controls, energy loss calculations, and applicable conservation techniques. Upon completion, students should be able to demonstrate an understanding of energy use, audits, and controls in the analysis of energy consumption.

**SST 130**                    **Modeling Renewable Energy**    College Credit: 3 semester hours

This course introduces software and other technologies used for modeling renewable energy systems. Topics include renewable energy modeling software applications, data analysis, renewable energy sources, and cost of renewable energy systems. Upon completion, students should be able to use appropriate technology to model the effectiveness of renewable energy systems.

**SST 140**                    **Green Building & Design Concepts**    College Credit: 3 semester hours

This course is designed to introduce the student to sustainable building design and construction principles and practices. Topics include sustainable building rating systems and certifications, energy efficiency, indoor environmental quality, sustainable building materials and water use. Upon completion, students should be able to identify the principles and practices of sustainable building design and construction.

**SST 210**                    **Issues in Sustainability**    College Credit: 3 semester hours

*Prerequisites: SST 110*

This course introduces the long-term impacts and difficulties of applying sustainability concepts in an organization, business, or society. Topics include the application of sustainable technologies and the analysis of affordability, efficiencies, recycling, and small and large-scale design. Upon completion, students should be able to recognize the possible limitations of sustainable technologies and be prepared to reconcile such conflicts.

**TRN 110**                    **Intro to Transport Technology**    College Credit: 2 semester hours

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

**TRN 120**                    **Basic Transportation Electricity**    College Credit: 5 semester hours

This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

**TRN 140**                    **Transportation Climate Control**    College Credit: 2 semester hours

This course covers the theory of refrigeration and heating, electrical/electronic/pneumatic controls, and diagnosis and repair of climate control systems. Topics include diagnosis and repair of climate control components and systems, recovery/recycling of refrigerants, and safety and environmental regulations. Upon completion, students should be able to diagnose and repair vehicle climate control systems.

**TRN 140A      Transportation Climate Control Lab**

College Credit: 2 semester hours

*Corequisite: TRN 140*

This course provides experiences for enhancing student skills in the diagnosis and repair of transportation climate control systems. Emphasis is placed on reclaiming, recovery, recharging, leak detection, climate control components, diagnosis, air conditioning equipment, tools and safety. Upon completion, students should be able to describe the operation, diagnose, and safely service climate control systems using appropriate tools, equipment, and service information.

**TRN 180      Basic Welding for Transportation**

College Credit: 3 semester hours

This course covers the terms and procedures for welding various metals used in the transportation industry with an emphasis on personal safety and environmental health. Topics include safety and precautionary measures, setup/operation of MIG equipment, metal identification methods, types of welds/joints, techniques, inspection methods, cutting processes and other related issues. Upon completion, students should be able to demonstrate a basic knowledge of welding operations and safety procedures according to industry standard.

**VET 110      Animal Breeds and Husbandry**

College Credit: 3 semester hours

This course provides a study of the individual breed characteristics and management techniques of the canine, feline, equine, bovine, porcine, ovine, caprine, and laboratory animals. Topics include physiological data, animal health management, and basic care and handling of animals. Upon completion, students should be able to identify breeds of domestic and laboratory animals, list physiological data, and outline basic care, handling, and management techniques.

**VET 114      Intro to Veterinary Medical Technology**

College Credit: 1 semester hour

This course introduces the standard operating procedures and responsibilities of veterinary medical technology departments, common zoonotic diseases, safety and ethical issues, and USDA/DEA/OSHA regulations/compliance. Emphasis is placed on standard operating procedures, zoonotic diseases, safety and ethical issues, and the importance of USDA/DEA/OSHA regulations and compliance. Upon completion, students should be able to perform duties assigned in veterinary medical technology, recognize potential zoonotic diseases, and establish safety protocols/regulatory compliance.

**VET 120      Veterinary Anatomy and Physiology**

College Credit: 4 semester hours

This course covers the structure and function of the animal body with emphasis on the similarities and differences among domestic animals. Emphasis is placed on the structure and function of the major physiological systems of domestic, laboratory, and zoo animals. Upon completion, students should be able to identify relevant anatomical structure and describe basic physiological processes for the major body systems.

**VET 121      Veterinary Medical Terminology**

College Credit: 3 semester hours

This course covers the basic medical terminology required for veterinary technicians. Topics include the pronunciation, spelling and definition of word parts and vocabulary terms unique to the anatomy, clinical pathology, and treatment of animals. Upon completion, students should be able to demonstrate knowledge and understanding of basic medical terms as they relate to veterinary medicine.

**VET 137      Veterinary Office Practices**

College Credit: 2 semester hours

This course is designed to teach basic administrative techniques, client communication skills, and regulations pertaining to veterinary medicine. Topics include record keeping, telephone techniques, professional liability, office procedures, state and national regulatory laws, human relations, and animal welfare. Upon completion, students should be able to demonstrate effective communication techniques, office procedures, and knowledge of regulatory laws and issues relating to animal welfare

**WBL 111            Work-Based Learning I**

College Credit: 1 semester hour

*Local Prerequisite: Approval of Instructor or Department Chairperson*

This course provides a work-based learning 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.

**WEB 110            Internet/Web Fundamentals**

College Credit: 3 semester hours

This course introduces World Wide Web Consortium (W3C) standard markup language and services of the Internet. Topics include creating web pages, search engines, FTP, and other related topics. Upon completion, students should be able to deploy a hand-coded website created with mark-up language, and effectively use and understand the function of search engines. *Students can receive high school CTE state articulated credit for Multimedia and Webpage Design if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**WEB 140            Web Development Tools**

College Credit: 3 semester hours

This course provides an introduction to web development software suites. Topics include the creation of web sites and applets using web development software. Upon completion, students should be able to create entire web sites and supporting applets.

**WEB 214            Social Media**

College Credit: 3 semester hours

This course introduces students to social media for organizations. Topics include social media, marketing strategy, brand presence, blogging, social media analytics and technical writing. Upon completion, students should be able to utilize popular social media platforms as part of a marketing strategy, and work with social media analytics tools.

**WLD 110            Cutting Processes**

College Credit: 2 semester hours

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

**WLD 112            Basic Welding Processes**

College Credit: 2 semester hours

This course introduces basic welding and cutting. Emphasis is placed on beads applied with gases, mild steel fillers and electrodes and the capillary action of solder. Upon completion, students should be able to set up welding and oxy-fuel equipment and perform welding, brazing, and soldering processes. *Students can receive high school CTE state articulated credit for Agricultural Mechanics II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**WLD-115            SMAW (Stick) Plate**

College Credit: 5 semester hours

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

**WLD 116 SMAW (Stick) Plate/Pipe**

College Credit: 4 semester hours

*Prerequisite: WLD 115*

This course is designed to enhance skills with the shielded metal arc (stick) welding process. Emphasis is placed on advancing manipulative skills with SMAW electrodes on varying joint geometry. Upon completion, students should be able to perform groove welds on carbon steel with prescribed electrodes in the flat, horizontal, vertical, and overhead positions.

**WLD 117 Industrial SMAW**

College Credit: 3 semester hours

This course introduces the SMAW (stick) process for joining carbon steel components for industrial applications. Topics include padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, student should be able to safely perform SMAW fillet and groove welds on carbon steel plate with prescribed electrodes.

**WLD 121 GMAW (MIG) FCAW/Plate**

College Credit: 4 semester hours

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions. *Students can receive high school CTE state articulated credit for Welding Technology II if he/she received a final grade of B or higher and a 93 or higher on the standardized CTE post-assessment.*

**WLD 131 GTAW (TIG) Plate**

College Credit: 4 semester hours

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.

**WLD 141 Symbols and Specifications**

College Credit: 3 semester hours

This course introduces the basic symbols and specifications used in welding. Emphasis is placed on interpretation of lines, notes, welding symbols, and specifications. Upon completion, students should be able to read and interpret symbols and specifications commonly used in welding.

**WLD 151 Fabrication I**

College Credit: 4 semester hours

*Local Prerequisites: WLD 110, and one of the following WLD 115 or WLD 116, or WLD 131*

This course introduces the basic principles of fabrication. Emphasis is placed on safety, measurement, layout techniques, and the use of fabrication tools and equipment. Upon completion, students should be able to perform layout activities and operate various fabrication and material handling equipment.

**WLD 262 Inspection and Testing**

College Credit: 3 semester hours

This course introduces destructive and non-destructive testing methods. Emphasis is placed on safety, types and methods of testing, and the use of testing equipment and materials. Upon completion, students should be able to understand and/or perform a variety of destructive and nondestructive testing processes.

**WLD 265          Automated Welding/Cutting**

College Credit: 4 semester hours

*Prerequisites: Take All: WLD 110 and WLD 121*

This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.