

PROGRAMS

ARCHITECTURAL TECHNOLOGY

Engineering and Technology Pathway: These curriculums are designed to prepare students through the study and application of principles from mathematics, natural sciences, and technology and applied processes based on these subjects.

Course work includes mathematics, natural sciences, engineering sciences and technology. Graduates should qualify to obtain occupations such as technical service providers, materials and technologies testing services, engineering technicians, construction technicians and managers, industrial and technology managers, or research technicians.

Geomatics Technology: A course of study that prepares students to use mathematical and scientific principles for the delineation, determination, planning and positioning of land tracts, boundaries, contours and features applying principles of route surveying, construction surveying, photogrammetry, mapping, global positioning systems, geographical information systems, and other kinds of property description and measurement to create related maps, charts and reports.

Includes instruction in applied geodesy, computer graphics, photointerpretation, plane and geodetic surveying, mensuration, traversing, survey equipment operation and maintenance, instrument calibration, and basic cartography.

Graduates should qualify for jobs as survey party chief, instrument person, surveying technician, highway surveyor, mapper, GPS technician, and CAD operator. Graduates will be prepared to pursue the requirements necessary to become a Registered Land Surveyor in North Carolina.

Associate in Applied Science Degree Program

| | | Course Hours Per Week | | Semester Hours |
|--------------------------|--|-----------------------|--------------|----------------|
| First Semester (Fall) | | Class | Lab | Credit |
| ACA-115 | Success & Study Skills | 0 | 2 | 1 |
| BPR-130 | Print Reading-Construction | 3 | 0 | 3 |
| CEG-115 | Intro to Tech & Sustainability | 2 | 3 | 3 |
| CEG-115A | Tech & Sustainability Lab | 0 | 3 | 1 |
| CEG-210 | Construction Mtls & Methods | 2 | 3 | 3 |
| EGR-110 or EGR-150 | Intro to Engineering Tech or Intro to Engineering | 1 | 2 | 2 |
| ENG-111 | Writing and Inquiry | 3 | 0 | 3 |
| *** | Technology Elective | 1-3 | 0-2 | 2-3 |
| Credit Hours | | 12-14 | 13-15 | 18-19 |
| Second Semester (Spring) | | | | |
| CEG-111 | Intro to Gis and Gnss | 2 | 4 | 4 |
| CEG-235 | Project Management/Estimating | 2 | 3 | 3 |

| | | Course Hours Per Week | | Semester Hours |
|-----------------------|--|-----------------------|-----------|----------------|
| EGR-120 | Eng and Design Graphics | 2 | 2 | 3 |
| ENG-112 or ENG-114 | Writing/Research in the Disc or Prof Research & Reporting | 3 | 0 | 3 |
| MAT*** | MAT-121 or MAT-171 | 2-3 | 2 | 3-4 |
| | Credit Hours | 11-12 | 11 | 16-17 |

Third Semester (Summer)

| | | | | |
|---------|---------------------|----------|--------------|-----------|
| EGR-251 | Statics | 2 | 2 | 3 |
| SRV-110 | Surveying I | 2 | 6 | 4 |
| *** | Physics Elective | 3 | 2-3 | 4 |
| | Credit Hours | 7 | 10-11 | 11 |

Fourth Semester (Fall)

| | | | | |
|---------|-------------------------------|-------------|--------------|--------------|
| CEG-211 | Hydrology & Erosion Control | 2 | 3 | 3 |
| SRV-111 | Surveying II | 2 | 6 | 4 |
| SRV-220 | Surveying Law | 2 | 2 | 3 |
| *** | Humanities/Fine Arts Elective | 3 | 0 | 3 |
| *** | Directed Elective | 0-3 | 2-30 | 3-4 |
| | Credit Hours | 9-12 | 13-41 | 16-17 |

Fifth Semester (Spring)

| | | | | |
|---------|-------------------------------|----------|-----------|-----------|
| CEG-230 | Subdivision Planning & Design | 1 | 6 | 3 |
| SRV-210 | Surveying III | 2 | 6 | 4 |
| SRV-240 | Topo/Site Surveying | 2 | 6 | 4 |
| *** | Social/Beh Sciences Elective | 3 | 0 | 3 |
| | Credit Hours | 8 | 18 | 14 |

Total Required Minimum Semester Hours Credit

75

| Technology Electives: | | Class | Lab | Credit |
|-----------------------|-------------------------|-------|-----|--------|
| CIS-111 | Basic PC Literacy | 1 | 2 | 2 |
| EGR-125 | Appl Software for Tech | 1 | 2 | 2 |
| UAS-110 | Intro to UAS Operations | 3 | 0 | 3 |
| UAS-115 | Small UAS Certification | 2 | 0 | 2 |

Physics Electives:

| | | | | |
|---------|-------------------|---|---|---|
| PHY-131 | Physics-Mechanics | 3 | 2 | 4 |
| PHY-151 | College Physics I | 3 | 2 | 4 |
| PHY-251 | General Physics I | 3 | 3 | 4 |

Directed Electives:

| | | | | |
|---------|--------------------------|---|---|---|
| CIV-111 | Soils and Foundations | 2 | 4 | 4 |
| MAT-172 | Precalculus Trigonometry | 3 | 2 | 4 |
| MAT-263 | Brief Calculus | 3 | 2 | 4 |
| MAT-271 | Calculus I | 3 | 2 | 4 |

 Programs

| | | Course Hours Per Week | | Semester Hours |
|---------|------------------------|--------------------------|----|-------------------|
| MAT-272 | Calculus II | 3 | 2 | 4 |
| WBL-111 | Work-Based Learning I | 0 | 10 | 1 |
| WBL-112 | Work-Based Learning I | 0 | 20 | 2 |
| WBL-113 | Work-Based Learning I | 0 | 30 | 3 |
| WBL-121 | Work-Based Learning II | 0 | 10 | 1 |
| WBL-122 | Work-Based Learning II | 0 | 20 | 2 |

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