Industry Credentials, Concentration Sequences, and Career Clusters

Modeling and Simulation Technology (8460)

Industry Credentials:

These apply only to 36-week courses

- Autodesk Certified Professional Examinations
- Autodesk Certified User Examinations
- College and Work Readiness Assessment (CWRA+)
- Modeling and Simulation Certification Examination
- National Career Readiness Certificate Assessment
- Unity Certified User Examinations: Programmer Certification
- Unity Certified User Examinations: VR Developer Certification
- Workplace Readiness Skills for the Commonwealth Examination

Concentration Sequences:

*A combination of this course and those below, equivalent to two 36-week courses, is a **concentration sequence.** A **program completer** is a student who has met the requirements for a CTE concentration sequence and all other requirements for high school graduation or an approved alternative education program. Students wishing to complete a specialization may take additional courses based on their career pathways.*

- Digital Visualization
- Geospatial Technology I
- Graphic Communications Systems
- Programming
- Programming, Advanced

Career Clusters, Career Pathways, and Occupations:

- Education and Training
  - Teaching and Training
    - Secondary School Teacher
    - Training Consultant/Training Specialist

- Information Technology
  - Information Support and Services
    - Applications Integrator
    - Computer Numerical Control Programmer (CNC Programmer)
    - Data Modeler
    - Database Analyst
    - Geographic Information Systems (GIS) Technician
    - Multimedia Artist, Animator
    - Systems Analyst
  - Network Systems
    - Computer Software Engineer
    - Database Analyst
    - Systems Analyst
  - Programming and Software Development
    - Computer Software Engineer
    - Game Designer, Programmer
    - Multimedia Artist, Animator
    - Programmer
  - Web and Digital Communications
    - Game Designer, Programmer
    - Multimedia Artist, Animator
    - Systems Analyst
- Science, Technology, Engineering and Mathematics
  - Engineering and Technology
    - Aerospace Engineer
    - Aerospace Engineering Technician
    - Architect
    - Biomedical Engineer
    - Chemical Engineer
    - Civil Engineer
    - Civil Engineering Technician
    - Commercial and Industrial Designer
    - Computer Software Engineer
    - Electrical Engineer
    - Electrical Engineering Technician
    - Electro-Mechanical Technician
    - Electronics Engineering Technician
    - Engineer

- Engineering Technician
- Environmental Engineer
- Industrial Engineer
- Industrial Engineering Technician
- Landscape Architect
- Manufacturing Systems Engineer
- Marine Engineer
- Materials Engineer
- Mechanical Engineer
- Mechanical Engineering Technician
- Nuclear Engineer
- Petroleum Engineer
- Power Systems Engineer
- Systems Analyst
- Science and Mathematics
  - Atmospheric Scientist
  - Biologist
  - Chemist
  - Ecologist
  - Economist
  - Environmental Scientist
  - Geoscientist
  - Hydrologist
  - Microbiologist
  - Oceanographer
  - Research Chemist