

Industry Credentials, Concentration Sequences, and Career Clusters

Biomedical Engineering (8467)

Industry Credentials:

These apply only to 36-week courses.

- College and Work Readiness Assessment (CWRA+)
- National Career Readiness Certificate Assessment
- 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.*

- Biotechnology Foundations in Agricultural and Environmental Science (8085/36 weeks)
- Biotechnology Foundations in Health and Medical Sciences (8344/36 weeks)
- Biotechnology Foundations in Technology Education (8468/36 weeks)
- Engineering Explorations I (8450/36 weeks)
- Engineering Practicum IV (8453/36 weeks)

Career Clusters, Career Pathways, and Occupations:

- Agriculture, Food and Natural Resources
 - Animal Systems
 - Animal Geneticist
 - Animal Scientist
 - Food Products and Processing Systems
 - Food Scientist
 - Natural Resources Systems
 - Microbiologist
 - Plant Systems
 - Botanist
 - Plant Breeder/ Geneticist
 - Power, Structural, and Technical Systems
 - Agricultural Engineer
- Health Science

- Biotechnology Research and Development
 - Biochemist
 - Cell Biologist
 - Medical, Clinical Laboratory Technician
 - Research Assistant
- Health Informatics
 - Bioinformatics Technician
- Support Services
 - Medical, Clinical Laboratory Technologist
- Therapeutic Services
 - Physician
 - Surgeon
- Science, Technology, Engineering, and Mathematics
 - Engineering and Technology
 - Agricultural Engineer
 - Biomedical Engineer
 - Chemical Engineer
 - Human Factors Engineer
 - Industrial Engineer
 - Industrial Engineering Technician
 - Science and Mathematics
 - Biologist
 - Botanist
 - Environmental Scientist
 - Microbiologists
 - Plant Breeder and Geneticist