

# **BIOSCIENCE 41.0100.00**

## **Program Description, Industry Credential, Coherent Sequence, and Teacher Certification**

### **PROGRAM DESCRIPTION**

The **Bioscience** program prepares individuals to apply scientific principles and technical skills in support of biologists and biotechnologists in research, industrial and government settings. The **Bioscience** program includes instruction in fermentation technology, cell culturing, protein purification, biologic synthesis, assaying and testing, quality control, industrial microbiology, bioprocessing, chromatography and bio separation, genetic technology, laboratory and hazardous materials safety, computer applications, and test equipment operation and maintenance.

The **Bioscience** program is designed and delivered as a coherent sequence of school-based and work-based supervised learning. The Professional Skills developed by business and industry leaders across Arizona are integrated throughout the program. The **Bioscience** students develop leadership, social, civic, and career skills through participation in the Career and Technical Student Organization HOSA (Future Health Professionals).

The **Bioscience** instructional program prepares students for entry-level employment, further training, and/or post-secondary education for these and other occupations: Laboratory Technician, Research Technician, Biological Science Technician, and Research/Lab Aide

### **INDUSTRY CREDENTIALS**

The following credentials have been approved for the A-F CCR and are CTED eligible for the **Bioscience** instructional program:

- Biotechnician Assistant Credential (BACE)
- OSHA 10 Healthcare

### **COHERENT SEQUENCE**

41.0100.10 - Bioscience I, **and**

41.0100.20 - Bioscience II, **and program may elect to add:**

41.0100.30 - Bioscience III, **or**

41.0100.40 - Bioscience IV, **or**

41.0100.75 - Bioscience - Internship **or**

41.0100.80 - Bioscience – Cooperative Education

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### **TEACHER CERTIFICATION REQUIREMENTS**

The instructor must be ADE/CTE certified in one of the following Certificates: PCTIET, SCTIET, SSCTEIET, PCTHC, SCTHC, SSCTEHC, PCTA, SCTA, or SSCTEA

Note:

- Bioscience 41.0100.75 is not required to have a Cooperative Education Endorsement (CEN).
- Bioscience 41.0100.80 is required to have a Cooperative Education Endorsement (CEN).

### **CERTIFICATE TYPES**

|                 |  |
|-----------------|--|
| <b>PCTIET</b>   | Provisional Career and Technical Education Industrial and Emerging Technologies          |
| <b>SCTIET</b>   | Standard Career and Technical Education Industrial and Emerging Technologies             |
| <b>SSCTEIET</b> | Standard Specialized Career and Technical Education Industrial and Emerging Technologies |
| <b>PCTHC</b>    | Provisional Career and Technical Education Health Careers                                |
| <b>SCTHC</b>    | Standard Career and Technical Education Health Careers                                   |
| <b>SSCTEHC</b>  | Standard Specialized Career and Technical Education Health Careers                       |
| <b>SSCTEHC</b>  | Standard Specialized Career and Technical Education Health Careers                       |
| <b>PCTA</b>     | Provisional Career and Technical Education Agriculture                                   |
| <b>SCTA</b>     | Standard Career and Technical Education Agriculture                                      |
| <b>SSCTEA</b>   | Standard Specialized Career and Technical Education Agriculture                          |