Biomedical Innovation

8382 36 weeks

Acknowledgments

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Course Description

Suggested Grade Level: 10 or 11 or 12
In this specialization course for Project Lead the Way (PLTW), students are taught concepts of human physiology, medical innovation, water contamination, public health issues, molecular biology, and forensic autopsy. Students complete an independent project as a culminating activity.

Project Lead The Way (PLTW) curriculum guides and course competencies are only available to PLTW affiliated schools through agreement with PLTW. To obtain additional information contact: Project Lead The Way 3939 Priority Way South Drive, Suite 400 Indianapolis, IN 46240 Toll Free: 877.335.PLTW (7589) Local: 317.669.0200 https://www.pltw.org

Entrepreneurship Infusion Units

Entrepreneurship Infusion Units may be used to help students achieve additional, focused competencies and enhance the validated tasks/competencies related to identifying and starting a new business venture. Because the unit is a complement to certain designated courses and is not mandatory, all tasks/competencies are marked “optional.”
Appendix: Credentials, Course Sequences, and Career Cluster Information

**Industry Credentials: Only apply to 36-week courses**

- College and Work Readiness Assessment (CWRA+)
- National Career Readiness Certificate Assessment
- Project Lead the Way End-of-Course Assessments
- 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. Students wishing to complete a specialization may take additional courses based on their career pathways. 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.

- Medical Interventions (PLTW) (8381/36 weeks)
- Principles of the Biomedical Sciences (PLTW) (8379/36 weeks)

**Career Cluster: Health Science**

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
</table>
| Biotechnology Research and Development | Biochemist  
Cell Biologist  
Medical, Clinical Laboratory Technician  
Research Assistant |
| Diagnostics Services          | Cardiovascular Technologist  
Computer Tomography (CT) Technologist  
Medical, Clinical Laboratory Technician  
Medical, Clinical Laboratory Technologist  
Nuclear Medicine Technologist  
Phlebotomist  
Radiologic Technologist, Radiographer  
Radiologist |
| Health Informatics            | Bioinformatics Technician  
Dental Laboratory Technician  
Epidemiologist |
### Career Cluster: Health Science

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support Services</td>
<td>Administrative Assistant, Communications Equipment Operator, Data Entry Specialist, Environmental Sampling and Analysis Technician, Food Service Worker, Front Office Assistant, Materials Manager, Medical Transcriptionist, Medical, Clinical Laboratory Technologist, Records Processing Assistant</td>
</tr>
<tr>
<td>Therapeutic Services</td>
<td>Physician</td>
</tr>
</tbody>
</table>

### Career Cluster: Science, Technology, Engineering and Mathematics

<table>
<thead>
<tr>
<th>Pathway</th>
<th>Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engineering and Technology</td>
<td>Agricultural Engineer, Biomedical Engineer, Chemical Engineer, Commercial and Industrial Designer, Computer Hardware Engineer, Computer Programmer, Computer Software Engineer, Electro-Mechanical Technician, Electronics Engineering Technician, Engineer, Engineering Manager, Engineering Technician, Environmental Engineer, Human Factors Engineer, Industrial Engineer, Materials Engineer, Network and Computer Systems Administrator, Network Systems and Data Communication Analyst, Project Manager, Quality Engineer, Quality Technician, Statistician, Systems Analyst</td>
</tr>
</tbody>
</table>