



# Biotechnology Pathway

The Healthcare Professions Pathway is a great program for students interested in conducting scientific research in a medical lab setting. **Students who complete 2 credits in this pathway will meet state ELA and Math testing requirements, and...**

- Discover how Biotechnology is helping address global health and environmental issues.
- Develop skills and techniques used in research and medical laboratories.
- Explore career opportunities available within the biotechnical research profession.
- Earn college credits which can be applied directly into partner college programs.
- Meet 3<sup>rd</sup> Year Science requirements through their Pathway courses.

## This CTE Pathway is a great fit for students who...

- ✓ Enjoy working with people as part of a team.
- ✓ Have an eye for detail and precision in their work.
- ✓ Are curious and enjoy solving problems.
- ✓ Have good math and science skills.

Start Your Pathway with 2 or more credits of Pathway courses

Then, After You Have Finished High School...

Finally, Begin Your Career!

### Sample Plan for Career and College Readiness in this Pathway

Grade 9	
English	
Math	
Science	
World History 9	Health
PE	Art
Elective	Elective
Grade 10	
English	
Math	
Social Studies	
Science	
PE	Art
Elective	Elective
Grade 11	
English	
Math	
US History	
Biotechnology	
Elective	Elective
Elective	Elective
Grade 12	
English	
Sr. Social Studies	
Personal Finance	PE
Elective	Elective
Elective	Elective
Anatomy/Physiology or Sports Medicine	

### Apply college credits earned in this Pathway directly into these partner college programs:

#### Shoreline Community College

- Biotechnology Lab Specialist Certificate and Degree programs
- Essentials of Biomanufacturing Certificate program

### Continue your training in another college program such as:

#### University of Washington

- Bioengineering
- Health Science

#### Washington State University

- Bioengineering

### Jobs you can get with 2-Years Post-High School Training:

Biotechnology Lab Specialist  
Biomanufacturing Technician

### Jobs you can get with 4 or more Years Post-High School Training:

Biochemist  
Biomedical Engineer  
Environmental Engineer  
Forensic Scientist  
Microbiologist  
Quality Control Analyst  
Research Scientist

For more information on these and other occupations related to this pathway, visit

<http://careerbridge.wa.gov/>



Edmonds SD Career and Technical Education

## Pathway Courses and Descriptions

Pathway Courses	Grades	Length	Equivalencies	EWHS	MHS	LHS	MTHS	SLHS
Biotechnology*	10-12	1 credit, Full year	1 credit Science		✓	✓	✓	
Anatomy and Physiology*	10-12	1 credit, Full year	1 credit Science		✓		✓	
Sports Medicine*	10-12	1 credit, Full year	.25 Health or .5 PE		✓	✓	✓	

✓ *Course is available at this school*

\* *College Credit Available*

### BIOTECHNOLOGY

SCI424/425 (Year)

Grades 10-12

Equivalency: 1 credit Lab Science

Prerequisite: Biology and completion of, or concurrent enrollment in, Chemistry.

Explore topics such as DNA analysis, genetic engineering and stem cells, as well as biotechnology related to medicine, global health, environmental issues and bioethics. Participate in hands-on lab experience to develop skills and techniques that are typical of research and medical laboratories. Complete a year-long biotechnology project and participate in the regional *Bio Expo* Science Fair. **Students can earn college credit through this course.**



### ANATOMY & PHYSIOLOGY

SCI408/409 (Year)

Grades 10-12

Equivalency: 1 credit Lab Science

Prerequisite: Completion of or concurrent enrollment in Biology.

Gain basic information regarding the chemistry and organization of living matter needed to understand cellular, tissue and organ functions. Study the structure and physiology of the major organ systems, and perform dissections. **Students can earn college credit through this course.**

### SPORTS MEDICINE

PHE032/033 (YR)

Grades 10-12

Equivalency: .25 credit Health or .5 PE

Study health, fitness, anatomy, physiology, injury treatment, injury response, and nutrition. First Aid, CPR, athletic injury prevention, care and rehabilitation and emergency procedures will also be taught. *Students enrolled in this class are required to register for Field Experience (PHE037/038).* **Students can earn college credit through this course.**