

NON-CYCLE REQUEST FORM

Curricular Area: Science/Healthcare

Course Title: Principles of Biomedical Science

Grade Level(s) 9-12 Semester or Year Long Course

Building- Jefferson High School Submission Date 10.13.2026

Name of Contact Person: Suzanne Bangert, Alyce Myers, Joy Cedarquist

Part A: Documentation

1. What is the rationale or purpose for this proposal? Please include as much quantifiable information as is available; e.g., needs assessment, test scores, etc.

The course that would be added to the science department would include Principles of Biomedical Science. Creating this course would provide our students with another opportunity to help them earn credits towards graduation. It would replace the current Principles of Healthcare class. The purpose of this proposal is to give students another pathway for graduation and continue to prepare those students for fields in the medical career. Long-term this class that is offered could be taught by a health science teacher or a biology teacher.

PLTW Biomedical Science Pathway from the data increases the likelihood of students entering STEM careers in college, ACT scores show improvement from a national average of 20 to an average of a 24 on the test.

Indiana Department of Education states “Real-World Context for Core Standards: Instead of passively memorizing cellular or genetic definitions, PBS grounds biological concepts (like DNA structure, protein synthesis, homeostasis, and feedback loops) in medical case studies—such as investigating the mysterious death of a fictional patient.” https://www.in.gov/doe/files/cf-hsbio-principles_of_biomedical_sciences_7-30-13.pdf

Part B: Proposed Curricular Changes

1. What student population will be served by this proposal? Please include an estimate of the number of students impacted by this proposal.

Population that would be served is any student interested in the medical field. Principles of healthcare would be replaced by Principles of Biomedical Science (PBS). This would impact about 60-100 students per year for PBS which is close the current enrollment we have right now. This is the entry class to a new graduation pathway and will impact the number of enrollment in anatomy and physiology and medical interventions.

2. What specific changes will be made to the curriculum?

Curriculum would be through PLTW. Principles of Biomedical science would teach many of the same items as our current Principles of Healthcare class. This class teaches healthcare concepts but goes more into depth in regards to the biology behind the medicine. Many skills are lab based and will be used in future classes. Topics in many medical careers will be taught including items like forensics. This will give our students more career options for the future.

3. How will these changes affect current learner outcomes and indicators?

These changes will keep the current learner outcomes and indicators while providing a clear pathway for graduation purposes. PBS is the first course in the series and serves as a starting point for our students to take classes that will help them in college and beyond.

4. What “Scientifically Based Research” supports the request?

PLTW Website gives data that is seen on this website and below: <https://www.pltw.org/cte-biomedical-science-pathways>

- **College Enrollment:** Students completing PLTW biomedical courses are **49% more likely** to enroll in college.
- **STEM Majors:** Graduates are **32% more likely** to choose a STEM major in college.
- **Postsecondary Retention:** Students are **15% more likely** to stay in postsecondary education after completing two or more PLTW courses.
- **Standardized Testing:** Participating schools report an average ACT composite score of **24** (compared to a national average of 20) and an average ACT science score of **24** (compared to a national average of 20).
- **Industry Alignment:** Prepares students to address a projected **2 million new healthcare jobs** by 2032 and offers opportunities for Industry-Recognized Credentials (IRCs) and college credit.

5. What are the course prerequisites?

Students need to be enrolled concurrently in Biology 1 or have taken it previously with a C or better. Students taking it concurrently should have a C or better in current science class.

6. How will this information be shared with other staff to be impacted by this change?

Goal will be to include in the handbook in the future. Science department will be given this information at staff meeting and counselors will have information shared with them as well.

7. What is the proposed date of implementation?

August 2027- The 2027-2028 school year.

Part C: Cost Estimates

Please be specific as possible; include numbers, amounts of time, etc. wherever possible.

Estimates	
Additional staff	0
Supplementary material(s)	0
Supplies	Consumables would be about \$500-\$1000 per year (depends on numbers of students)
Staff Development	\$2,400
Textbooks	0
Equipment	~\$1000-\$3000 for start-up equipment
Other	
Other	

Part D: Assessments

Describe the process by which you intend to assess this curriculum. How will the results of the assessment be shared with staff, Sr. Leaders, and the Board of Education? What is the timeline for this assessment?

Assessments are taken through PLTW. Assessments can be viewed here https://www.pltw.org/hubfs/assessments/PLTW_EoCAssessment_AdminManual.pdf.

Many of the items in PBS class also are in line with the Biology Curriculum for the state of Indiana. We could for students taking PBS and Biology at the same time the pass rate for the ECA could be used as a data point.

Timelines

LEA presentation: _____

Cabinet presentation: _____

Board presentation: _____

Board approval: _____