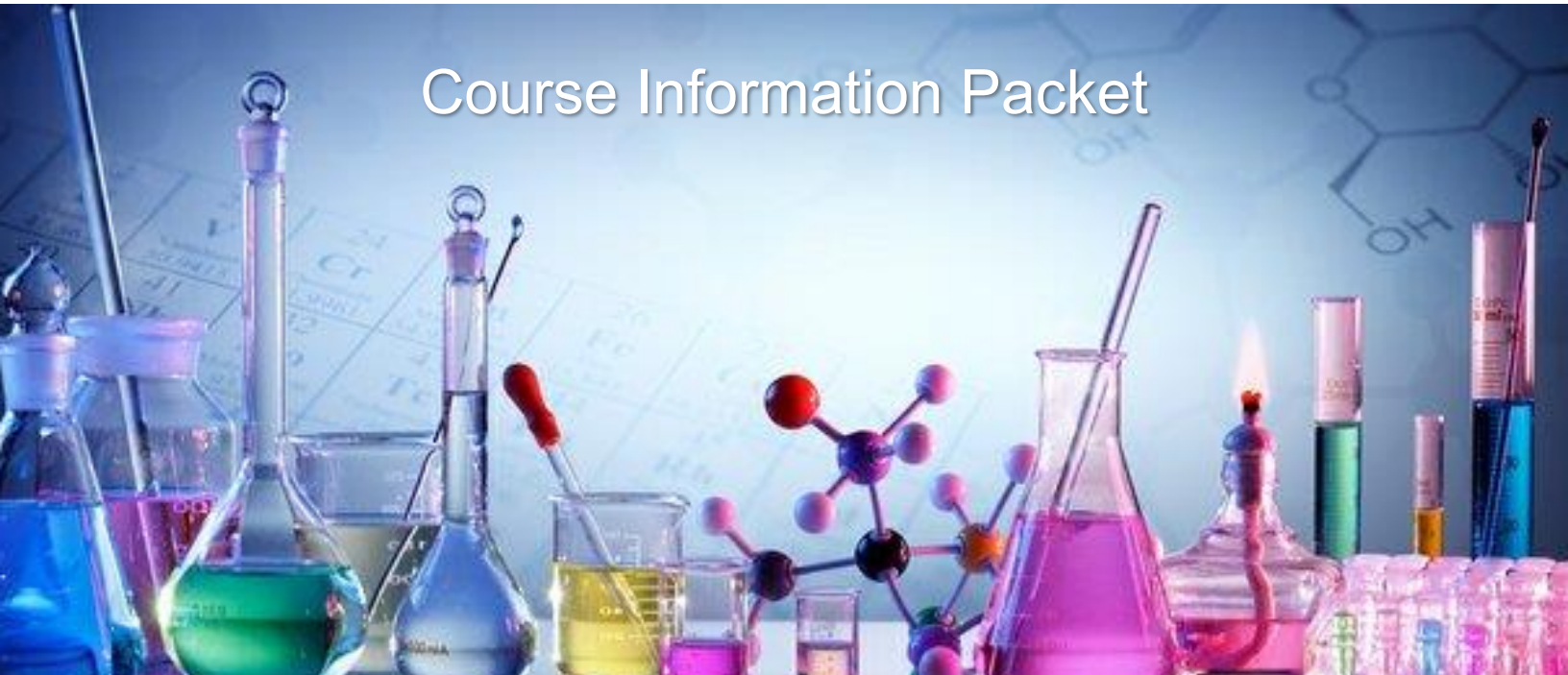
PLTW

Project Lead the Way Biomedical Science Program



Building a Strong Foundation for College and Career

By immersing students in activities like practicing suturing and constructing body structures from clay, PLTW Biomedical Science empowers students to build knowledge and skills in biomedical science, as well as in-demand, transportable skills like problem solving, critical and creative thinking, communication, and collaboration.

The 4 PLTW Biomedical Science courses offered at Auburn High School are listed below, including brief descriptions. Each course must be taken in sequence, starting with the 1st course, Principles of Biomedical Science. Students entering AHS as freshman have the opportunity to take the first course and then continue to progress through the program as they see fit. Students also have to option to stop progressing through the program at any time.

1. Principles of Biomedical Science

By engaging in activities like dissecting a sheep heart, students explore concepts of biology and medicine to determine factors that led to the death of a fictional person.

2. Human Body Systems

Through projects such as determining the identity of a skeleton using both forensic anthropology and DNA analysis, students examine the interactions of human body systems and apply what they know to solve real-world medical cases.

3. Medical Interventions

Students delve into activities like designing a prosthetic arm as they follow the life of a fictitious family and investigate how to prevent, diagnose, and treat disease.

4. Biomedical Innovation

Students build on the knowledge and skills gained from previous courses to design their own innovative solutions for the most pressing health challenges of the 21st century.

Principles of Biomedical Science

It was a hot summer morning. A man contacted the police to report that he was worried about his next-door neighbor, a woman named Anna. He tried to call Anna on the telephone, but no one answered. Both the police and an EMT arrived at the scene. The EMT soon determined that Anna was dead. The police immediately notified your team of crime scene investigators as well as the medical examiner, both of which were dispatched to the house. Your job is to determine what happened to Anna.

From the moment students walk into the Principles of Biomedical Science (PBS) classroom, they are immersed in the mysterious death of Anna. They are asked to investigate, document, and analyze evidence to solve the case.

The Principles of Biomedical Science (PBS) course provides an introduction to biomedical science through exciting hands-on projects and problems. Students investigate concepts of biology and medicine as they explore health conditions including heart disease, diabetes, sickle-cell disease, hypercholesterolemia, and infectious diseases. They will determine the factors that led to the death of a fictional woman as they sequentially piece together evidence found in her medical history and her autopsy report. Students will investigate lifestyle choices and medical treatments that might have prolonged the woman's life and demonstrate how the development of disease is related to changes in human body systems.

The activities and projects in PBS introduce students to human physiology, basic biology, medicine, and research processes and allow students to design experiments to solve problems. Key biological concepts, including maintenance of homeostasis in the body, metabolism, inheritance of traits, and defense against disease are embedded in the curriculum. This course is designed to provide an overview of all the courses in the biomedical science program and lay the scientific foundation for subsequent courses.

Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

Human Body Systems

Step inside the human body and explore the systems that help us move, protect us from disease or injury, and facilitate communication within the body and with the outside world.

Solve a medical mystery. Analyze a medical case file and diagnose disease. Design experiments to explore structure and function of the human body.

How do the systems of the body work together to keep us well?

In the Human Body Systems (HBS) course, students examine the interactions of body systems as they explore identity, communication, power, movement, protection, and homeostasis. Students design experiments, investigate the structures and functions of the human body, and use data acquisition software to monitor body functions such as muscle movement, reflex and voluntary action, and respiration. Exploring science in action, students build organs and tissues on a skeletal manikin, work through interesting real world cases, and often play the role of biomedical professionals to solve medical mysteries.

Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

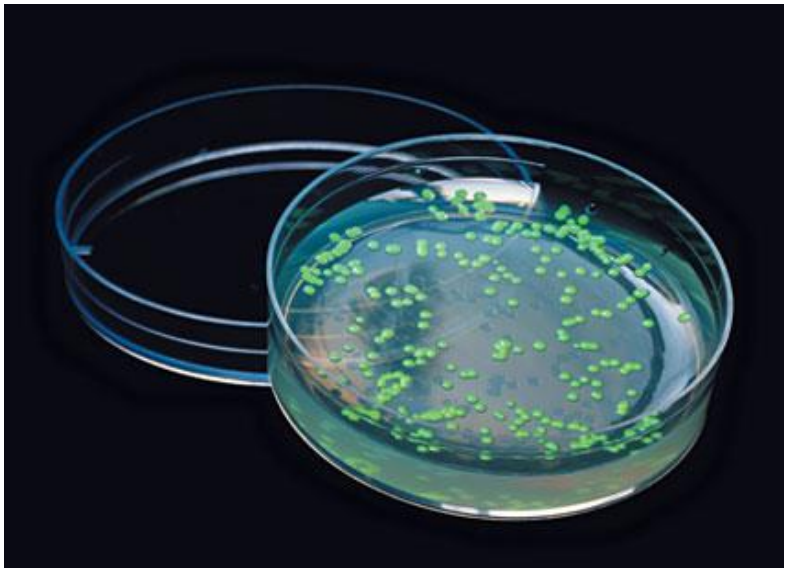
Medical Interventions

Follow the fictitious Smith family as you learn about the prevention, diagnosis, and treatment of disease.

Play the role of biomedical professionals to analyze case information and diagnose and treat your patients. Investigate the medical interventions of the past and present, and begin to brainstorm the innovations of the future.

Medical Interventions (MI) allows students to investigate the variety of interventions involved in the prevention, diagnosis, and treatment of disease as they follow the lives of a fictitious family. A "How-To" manual for maintaining overall health and homeostasis in the body, the course will explore how to prevent and fight infection, how to screen and evaluate the code in our DNA, how to prevent, diagnose, and treat cancer, and how to prevail when the organs of the body begin to fail. Through these scenarios students will be exposed to the wide range of interventions related to immunology, surgery, genetics, pharmacology, medical devices, and diagnostics. Each family case scenario will introduce multiple types of interventions, reinforce concepts learned in the previous two courses, and present new content. Interventions may range from simple diagnostic tests to treatment of complex diseases and disorders. These interventions will be showcased across the generations of the family and will provide a look at the past, present, and future of biomedical science. Lifestyle choices and preventive measures are emphasized throughout the course as well as the important role that scientific thinking and engineering design play in the development of interventions of the future.

Students practice problem solving with structured activities and progress to open-ended projects and problems that require them to develop planning, documentation, communication, and other professional skills.

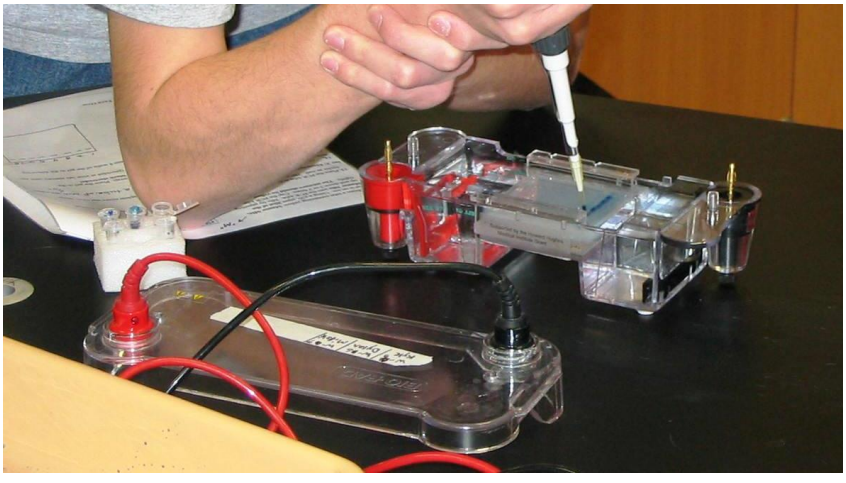


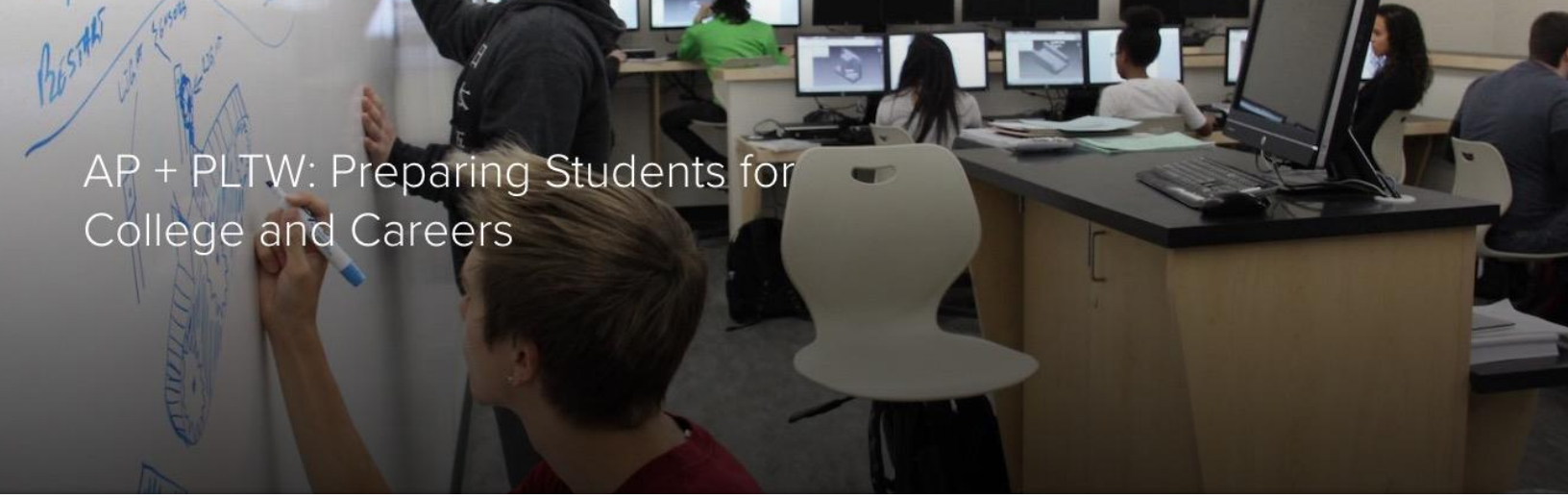
Biomedical Innovation

You are about to embark on detailed missions in science and medicine. Apply all you have learned in the BMS pathway to solve problems, design solutions, and complete each medical mission.

In this capstone course, students apply their knowledge and skills to answer questions or solve problems related to the biomedical sciences. Students design innovative solutions for the health challenges of the 21st century as they work through progressively challenging open-ended problems, addressing topics such as clinical medicine, physiology, biomedical engineering, and public health. They have the opportunity to work on an independent project and may work with a mentor or advisor from a university, hospital, physician's office, or industry. Throughout the course, students are expected to present their work to an adult audience that may include representatives from the local business and healthcare community.

In the Biomedical Innovation course, students will be asked to apply what they have learned in the previous three courses to solve unique problems in science, medicine, and healthcare. Students will work systematically through required problems before completing optional directed problems or independent work. Each problem is staged as a mission – a unique set of tasks the students must work through to achieve their desired objective. Students are presented with each problem in a Mission File – a document that includes a case brief, a list of completion tasks, links to available resources, as well as a reflection section. Working through the missions not only exposes students to current issues in biomedical science, but it also provides skills-based instruction in research and experimentation – tools students will use to design innovative solutions to real-world problems. Students will use what they learn in these missions as they develop and implement their independent project at the end of the year. A teacher may use additional resources in the community – the guidance of other teachers in the school, the advice of scientists or biomedical professionals, or the knowledge presented in scientific literature to help students achieve each goal.





AP + PLTW: Partnering to Create More Opportunities for Students

To help prepare all students for the global workforce, the College Board and Project Lead The Way (PLTW) have partnered on a program to encourage student participation in science, technology, engineering, and math (STEM) courses and build their interest in STEM degrees and careers. The program leverages the success of the College Board's Advanced Placement Program (AP) and Project Lead The Way's applied learning programs.

The program has three elements:

- College and career pathways that connect AP and PLTW courses
- Recognition for students who participate in the pathways, and recognition for schools
- A portfolio of career-focused opportunities for students

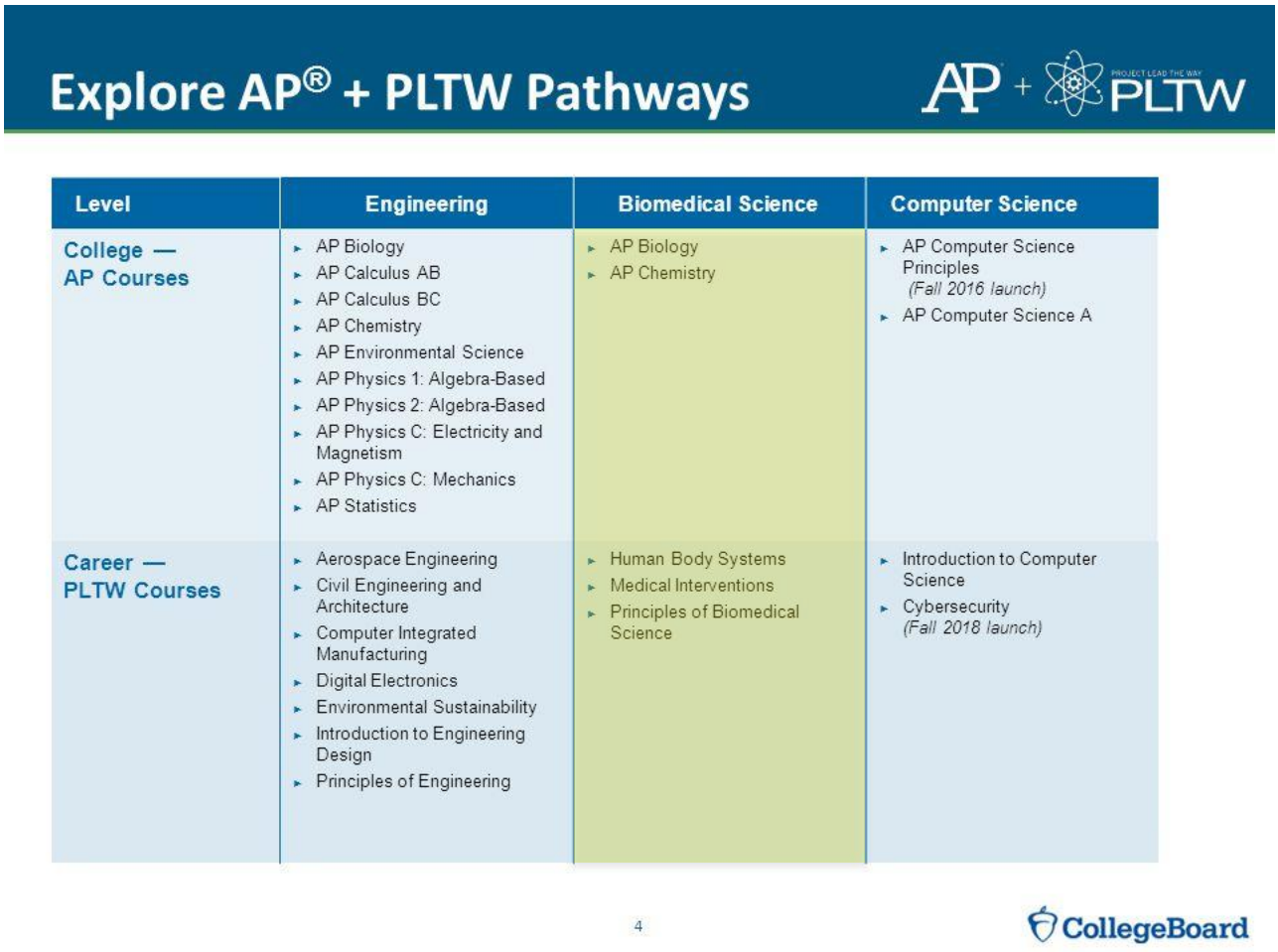
Get Students on the Path

The first element of the program is a set of college and career pathways in three fields – engineering, biomedical science, and computer science – that incorporate both AP and PLTW courses. Your school can connect its existing AP and PLTW courses or add AP or PLTW courses, or both. Schools design their own pathways that best meet the needs of the school and its students.

Each pathway emphasizes applied learning and consists of three components:

- PLTW courses designed to introduce all students to the field
- AP courses and exams that provide an opportunity for advanced placement and/or college credit
- PLTW specialization courses that focus on knowledge and skills needed for rewarding careers

The table below shows the menu of courses that schools can combine to create pathways. The pathway for Biomedical Science is highlighted.



Explore AP® + PLTW Pathways

AP + PLTW

Level	Engineering	Biomedical Science	Computer Science
College — AP Courses	▸ AP Biology ▸ AP Calculus AB ▸ AP Calculus BC ▸ AP Chemistry ▸ AP Environmental Science ▸ AP Physics 1: Algebra-Based ▸ AP Physics 2: Algebra-Based ▸ AP Physics C: Electricity and Magnetism ▸ AP Physics C: Mechanics ▸ AP Statistics	▸ AP Biology ▸ AP Chemistry	▸ AP Computer Science Principles *(Fall 2016 launch)* ▸ AP Computer Science A
Career — PLTW Courses	▸ Aerospace Engineering ▸ Civil Engineering and Architecture ▸ Computer Integrated Manufacturing ▸ Digital Electronics ▸ Environmental Sustainability ▸ Introduction to Engineering Design ▸ Principles of Engineering	▸ Human Body Systems ▸ Medical Interventions ▸ Principles of Biomedical Science	▸ Introduction to Computer Science ▸ Cybersecurity *(Fall 2018 launch)*

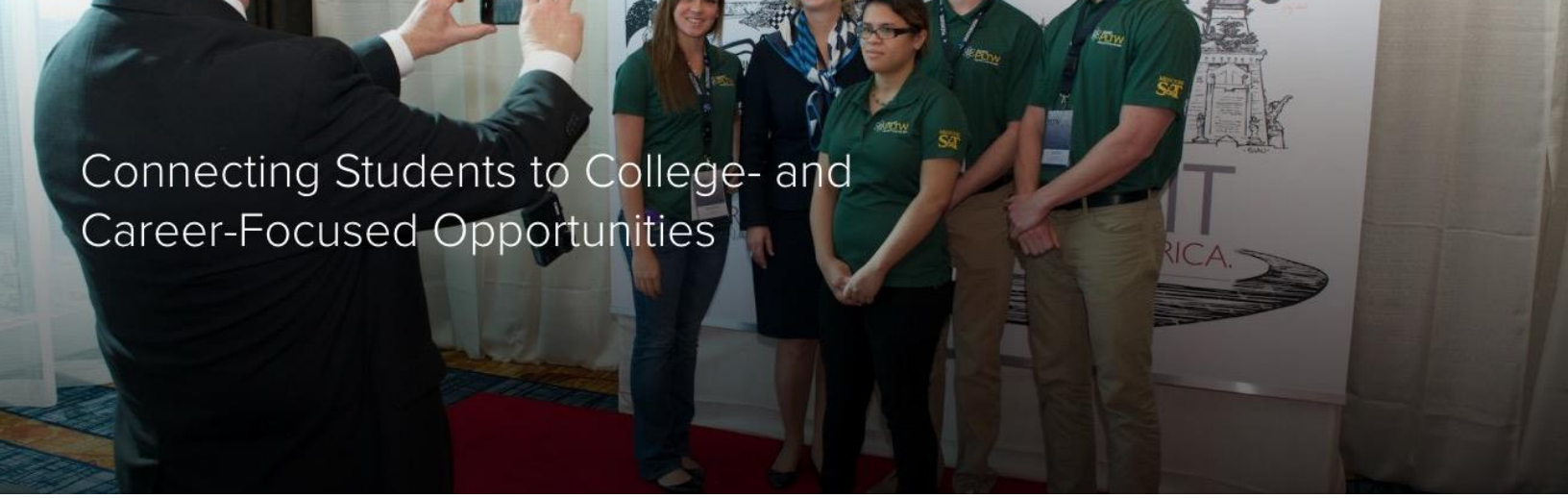
4

CollegeBoard

Student Recognition

Students who complete the requirements of their chosen pathway earn the **AP + PLTW student recognition**, a qualification that demonstrates to colleges and employers that the student is ready for advanced course work and interested in careers in this discipline.

To earn the recognition, the student must satisfactorily complete three courses in the pathway – one AP course; one PLTW course; and a third course, either AP or PLTW – and earn a qualifying score of 3 or higher on the AP Exam(s) and a score of Proficient or higher on the PLTW End of Course (EoC) assessment(s).



Universities Awarding College Credit

Every year more colleges recognize PLTW courses as college level. This is partial list of colleges that are currently rewarding PLTW students for taking BMS courses. Each college has different requirements regarding grades, end-of-course test scores, application procedures and cost. When making a decision, it is in your best interest to work with your PLTW instructor and college advisor to determine the best options for you. We highly recommend checking with the college you plan to attend prior to applying for credit for our PLTW courses.

Augustana University believes in the mission of Project Lead The Way and seeks to recognize students who have participated in PLTW courses. Students who have completed PLTW courses are eligible for **Augustana's PLTW scholarship**. Students who have successfully completed PLTW courses at a certified PLTW school can also apply to receive college credit from Augustana.

Students may receive undergraduate credit from the Missouri University of Science and Technology for successfully completing any of the PLTW Biomedical Sciences courses. Students must have taken the course from a PLTW school and received an A or B in the class. In addition, they must score a 6 or better on the national EOC exam. Credit will be awarded for the first year biology electives in the S&T curriculum listed below. Each course is 3 credits. Courses listed for credit on transcript will be by PLTW course titles. The fee is $250/course.

High school students can earn university credits for completing high school Project Lead the Way courses. The cost is $100 for three semester credits. For non-St. Cloud State University students: Once issued the credit - student will need to transfer the credit to their school. The program the student enrolls in will determine how the credits will be counted in the program. Credits are non-refundable. Generally, credits will be counted as university electives.

To receive undergraduate credit for PLTW courses from MSOE the student must meet the following eligibility requirements: Complete the PLTW course at a registered PTLW school / meet the PLTW Access Recognition Level. Successfully complete a PLTW course, as demonstrated by:
A grade of B or higher in classroom course work **AND** a stanine score of 7 or higher on the end-of-course exam.

Students who complete all four courses in the Project Lead the Way Biomedical Sciences program can apply to receive credit for Stevenson University's **BIO 113 General Biology I: Cell Biology and Genetics lecture and laboratory courses and BIO 222 Human Anatomy** (see course descriptions below). For those students who meet the requirements, eight (8) credits can be awarded for BIO 113, BIO 113L, and BIO 222 from Stevenson University.

PROJECT LEAD THE WAY

PLTW

Instructions to apply for College credit

At AHS, we recommend students wait until their Senior year to begin applying for college credit. The most important step in this application process is to contact the college that you've chosen to attend, and inquire if the credits from the PLTW course will transfer.

The following section includes all of the information and applications necessary to apply for college credit from any one of the 5 institutions that offer it. Choose the institution that is both, least expensive, and offers credits you know will transfer to the college you've chosen to attend. Your school counselor can help you with this process. It may be helpful to send a copy of the application and instructions to the college you want to attend, so the admissions staff can look over the courses you're applying for and let you know if they can accept them as transfer credits.


AU
AUGUSTANA
UNIVERSITY

Project Lead The Way (PLTW) Course Credit Application

Biomedical Sciences

Earning Augustana University credit for Project Lead The Way (PLTW) courses:

Secondary school students from any PLTW-certified school may apply for transcripted Augustana University credit. To earn credit, students must complete the Student Information section and submit it to their PLTW high school teacher for a signature to verify course grade and exam score. This completed form should be mailed, along with an official high school transcript and payment for course credits, to the Augustana University Registrar's Office. Augustana offers credit for the following PLTW courses:

Biomedical Sciences Program

PLTW Course	Augustana Course	Credits
Principles of the Biomedical Sciences (PBS) **AND** Human Body Systems (HBS) Must complete both for credit.	**BIOL 100PL:** Principles of the Biomedical Sciences and Human Body Systems	4
Medical Interventions (MI)	**BIOL 101PL:** Medical Interventions	4
Biomedical Innovation (BI)	**BIOL 102PL:** Introduction to Biological Innovation (BI)	4

- Students must achieve a grade of 80% or higher in each course.
- Students must score 6 or higher on the end-of-course exam (when applicable).
- Submit an official high school transcript.
- The registration form must be signed by a PLTW teacher.
- Payment of $200 per course ($50 per credit hour) should be submitted along with this form.

Return completed form (see page 2) and payment to:

Augustana University
Attn: Admission
2001 S Summit
Sioux Falls, SD 57197

Project Lead The Way (PLTW) Course Registration Form

Student Information:

Name: _____ Gender: ☐ M ☐ F

Social Security Number: _____-_____-_____ Date of birth: _____/_____/_____

Street Address: _____

City: _____ State: _____ Zip: _____

Email: _____

High School: _____City: _____State: _____

Phone number: ( ) _____-_____ HS Grad Year: 20_____

PLTW Course / **Augustana Course**	**Course grade**	**EOC Exam Grade***
Principles of the Biomedical Sciences (PBS) **AND** Human Body Systems (HBS) / **BIOL 100PL** Semester/Year Taken _____ Teacher name: _____ Teacher's Email _____ Teacher's signature _____	PBS HBS	PBS HBS
Medical Interventions (MI) / **BIOL 101 PL** Semester/Year Taken _____ Teacher name: _____ Teacher's Email _____ Teacher's signature _____		
Biomedical Innovation (BI) / **BIOL 102 PL** Semester/Year Taken _____ Teacher name: _____ Teacher's Email _____ Teacher's signature _____		N/A

*EOC (End of course) exam scores only required where applicable

Make checks payable to: Augustana University, OR to pay by credit card, call 605.274.5516.

$200 ($50 per credit hour) x _____ courses = $_____ Total

Applicant's signature: _____ Date: _____

MISSOURI UNIVERSITY OF SCIENCE AND TECHNOLOGY

UNDERGRADUATE CREDIT:

The link below details the requirements, and has the downloadable PDF of the two credits we offer, MECH ENG 1720 and BIO SCI. Outlined are some important and common questions we receive about the process to obtain credit. If you have specific questions, please call Brittany at the Registrar's Office at 573-341-4074.

https://pltw.mst.edu/undergradcredit/undergradcredit/

FAQs :

Engineering credit ***Mech Eng 1720***

Principles of Biomedical Science (PBS) ***Bio 1943***

Human Body Systems (HBS) ***Bio 1953***

Medical Interventions (MI) ***Bio 1982***

Biomedical Innovation (BI) ***Bio 1983***

What are the requirements to qualify for college credit? The requirements for receiving MECH ENG 1720 credit are the following:

1) Complete **ONE** of the foundational PLTW courses listed below **AND** any other PLTW Engineering course:

   - Principles of Engineering (POE)
   - Introduction to Engineering Design (IED)

   Substitutions include the following:
   Computer Integrated Manufacturing (CIM)
   Civil Engineering/Architecture (CEA)
   Digital Electronics (DE)
   Engineering Essentials (EES)
   Aerospace Engineering (AE)
   Engineering Design and Development (EDD)

2) Earn a (B) average (80% +) in each course
3) Earn a stanine score of "6" or higher for each course, and/or a raw score or equivalent
4) Pay the $200 fee
5) Attach official high school transcripts which includes both graded semesters of your PLTW course

The requirements to receive credit for **each** of the four courses in the Biomedical Sciences Program are the following:

1) Complete a PLTW Biomedical Science course:

   - Principles of Biomedical Science (PBS)
   - Human Body Systems (HBS)
   - Medical Interventions (MI)
   - Biomedical Innovation (BI)

2) Earn a (B) average (80% +) in each course
3) Earn a stanine score of "6" or higher for each course, and/or a raw score or equivalent
4) Pay the $250 fee per course
5) Attach official high school transcripts which includes both graded semesters of your PLTW course

*Applications cannot be processed without missing signatures, EOC or exam scores, official high school transcript, and payment. Credit card or check are the only approved options to purchase the credit(s). *The fees cannot be charged to their Joe'SS account (*current S&T students*).*

What is the deadline to apply for credit through PLTW? There is not a deadline to apply for credit, but it is most common for students to apply for the credit when they have graduated high school. Students are encouraged to check with their prospective university to see how the credit(s) would transfer before applying for the credit. The four BIO SCI courses equate to first year biology electives at Missouri S&T and the MECH ENG 1720 credit is a common freshman year course required of all Missouri S&T engineering majors.

How should a high school submit a student's PLTW application to Missouri S&T? Students should fill out and sign the appropriate sections of the form and have a teacher or a school official sign and document their course grade and End of Course Exam score. The student will then attach and provide payment and give to a school counselor or school official that handles the applications. The high school will collectively send the application, payment, and an official high school transcript* to the address on the bottom of the PLTW application. **The high school transcripts must be in a sealed envelope from the high school - mailed directly to Missouri S&T.*

What type of credit do the students earn? Students are awarded 3 college-level credit hours for each BIO SCI course and 3 college-level credit hours for MECH ENG 1720. The BIO SCI courses are calculated in the applicant's Missouri S&T cumulative GPA while the MECH ENG 1720 is exempt.

What year-of-study (Freshman, Sophomore, Junior, Senior) applicants can earn the college credit? Applicants may seek college credit for MECH ENG 1720 after they have successfully completed both IED and POE courses (or one of these may be substituted for a PLTW engineering course listed above) or for the Biomedical Sciences program - after an applicant completes each BIO SCI course. In addition to incoming freshman, current undergraduate students may also apply for credit if they have taken the PLTW courses previously in a PLTW certified high school.

Transcript Requests to transfer PLTW credits: Once a PLTW credit is approved and processed, an award letter is mailed out with information on how to order an official transcript from Missouri S&T. PLTW applicants will be directed to the following link to request a transcript:

https://registrar.mst.edu/transcripts/transcripts/ and click on "Click here to complete a transcript request through the NSC."

Information about completing a transcript request: The transcript request will prompt "*Are you currently enrolled at Missouri University of Science and Technology*?" If the requestor selects "No," they will have to answer the "*approximate years of attendance*" in a begin year and end year format. If an applicant only received PLTW credit at Missouri S&T and never enrolled, they would enter "2018" to "2018" or whichever year the credit(s) were granted. Transcripts are $10 per copy, plus processing fees.

How do I get documentation to show my PLTW credits are paid for – for tax related purposes? PLTW is not a part of the Form 1098-T. When credits are approved, an award letter and transfer evaluation report are mailed out; the award letter correspondence states the awarded credit(s) and the date that they were paid in full, and to use for tax related purposes, if needed.

103 Parker Hall
300 West 13th Street
Rolla, MO 65409-0930
Phone: (573) 341-4181
Fax: (573) 341-4362
registrar@mst.edu
http://registrar.mst.edu/

Application for Missouri S&T Bio Sci Credit for High School PLTW Students

Missouri University of Science and Technology
Office of the Registrar

Students may receive undergraduate credit from the Missouri University of Science and Technology for successfully completing any of the PLTW Biomedical Sciences courses. Students must have taken the PLTW courses in high school, have an 80 percent average (B) or higher in the classes, and have a **stanine score of 6 or higher for each class, and/or a raw score or equivalent.** If grades are assigned by semester, rather than by course, the two semester grades will be averaged. Credit will be awarded for the first-year biology electives in the S&T curriculum listed below. Each course is 3 credits. The fee is $250/course. The fee is only refundable if requested within the academic year in which the credit was granted. Students are encouraged to contact their prospective university to see how the credit would transfer.

Legal Name in Full

_____ _____ _____
Last First Middle

Social Security Number: _____ - _____ - _____ | Gender: ☐ Male ☐ Female | Date of Birth: ____ / ____ / _____

Specify year and term in which you seek credit (check one)
Year _____ ☐ Fall ☐ Spring ☐ Summer

Citizenship: ☐ U.S. Citizen
☐ Non-US; Country: _____
☐ Visa Type, Number, Exp Date: _____

Ethnic Origin (Optional): ☐ American Indian or Alaskan Native ☐ Asian or Pacific Islander ☐ Hispanic
☐ African American, not of Hispanic origin ☐ White, not of Hispanic origin ☐ Other _____

Your home address: E-mail _____ Phone # _____

_____
Street address City County State Zip Code

High School Name: _____ City: _____ State: _____

Year of Anticipated Graduation from High School: _____

Have you ever enrolled for credit courses through the Missouri University of Science and Technology? ☐ Yes ☐ No
If yes, please indicate your Missouri S&T Student ID _____

Project Lead The Way Course / Missouri S&T Course	Course Grade	EOC or Exam Score
Principles of Biomedical Science (PBS) / Bio Sci 1943 Intro to Human Anatomy and Physiology I (A&PI): Semester(s)/Year taken: _____ Teacher's Name: _____ Teacher's Email: _____ Teacher's Signature: _____		
Human Body Systems (HBS) / Bio Sci 1953 Introduction to Human Anatomy and Physiology II (A&PII): Semester(s)/Year taken: _____ Teacher's Name: _____ Teacher's Email: _____ Teacher's Signature: _____		
Medical Interventions (MI) / Bio Sci 1982 Introduction to Biomedical Problems (BP): Semester(s)/Year taken: _____ Teacher's Name: _____ Teacher's Email: _____ Teacher's Signature: _____		
Biomedical Innovation (BI) / Bio Sci 1983 Introduction to Biological Design and Innovation (BI): Semester(s)/Year taken: _____ Teacher's Name: _____ Teacher's Email: _____ Teacher's Signature: _____		NA

$250 x _____ courses = $_____ Total Paid via: ☐ Check # _____ ☐ Credit Card (Type:MasterCard/Discover/VISA)

Credit Card Number: _____ _____ _____ _____

Please Make Checks Payable to Missouri S&T

Expiration Date: _____/ _____

Applicant's signature _____ Date of Application: _____

☐ **Please send me additional information about Missouri S&T, Missouri's Premier Technological Research University**

Return Completed Form to:
(Please give this to your high school counselor to send with an official high school transcript **which includes both graded semesters of your PLTW course.**)

Missouri S&T Registrar's Office
103 Parker Hall, 300 West 13th Street
Rolla, MO 65409-0930

An Equal Opportunity Institution

For Office Use Only. / _____ / _____ / _____ / _____

Revised: 5.13.19

ST. CLOUD STATE UNIVERSITY™

St. Cloud State University
Project Lead the Way (PLTW) Credit

Secondary school students successfully completing Project Lead the Way (PLTW) courses may apply for transcripted credit from St. Cloud State University (SCSU). The student will receive 3 semester credits per course, subject to the following conditions:

- All requirements for the PLTW course must be satisfied, and the student must achieve an 80% (B) or better for the course.
- The PLTW end of course exam must be taken and earn a score of 4 or higher.
- The registration fee of $100 must be paid. (A limited number of scholarships are available based on student financial need for MN students. Contact Chuck Hentges - crhentges@stcloudstate.edu or 320-308-2118)
- Grade of S (Satisfactory) appears on the St. Cloud State University transcript

All High School PLTW courses may be received.

Please complete form electronically : https://www.stcloudstate.edu/ets/pltw.aspx

How to register for credit for PLTW courses:

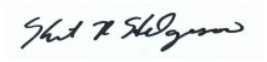
1. Download the **Registration Form** from www.mnpltw.org or www.stcloudstate.edu/ets/scsupltw
2. Have student complete the **"STUDENT INFORMATION"** section of the form and give to PLTW teacher along with payment * of $100 **per course**.
3. Have PLTW teacher complete the **"INSTRUCTOR/COURSE INFORMATION"** section of the form and mail it with payment check to:

   SCSU PLTW - Attn: Kurt Helgeson
   216 Headley Hall - SCSU
   720 4th Ave S
   St. Cloud, MN 56301
   320-308-3127

   * Check or Money Orders should be made out to **St. Cloud State University - PLTW #210441.**

Information on your academic record, including how to review your transcript and get an official copy of the transcript should you attend another college or university can be found at: https://www.stcloudstate.edu/srfs/transcripts/default.aspx . You will need to activate you Star ID: https://stcloudstate.custhelp.com/app/answers/detail/a_id/867/related/1.

Do not hesitate to contact me should you have any questions.



Dr. Kurt R. Helgeson
krhelgeson@stcloudstate.edu
320-308-3127
Affiliate Director – MN Project Lead the Way

REGISTRATION INSTRUCTIONS:

To earn three St. Cloud State University credits for a Project Lead the Way (PLTW) course, students must complete the "**STUDENT INFORMATION**" section of this form and submit it to their PLTW high school instructor for approval. Payment of $100, as check or Money Order payable to St. Cloud State University - PLTW, must be submitted along with this form. ***Registrations will not be processed without payment.***

PLEASE NOTE: All student information is required and will be used for identification and to establish SCSU student record.

STUDENT INFORMATION: **Please complete form via online computer form (typed) -**

Last Name:	First Name:	Middle Initial:
Home Address:	City:	State:
Email Address:	Phone #:	ZIP Code:
Birth date:	Graduation Date: MM/YY	
High School Name:	SCSU Student ID# (If you have one):	

Student Signature: _____

Course applying for credit (***New form required for each course***):

Engineering Courses

- ☐ Introduction to Engineering Design (80)
- ☐ Principles of Engineering (81)
- ☐ Computer Integrated Manufacturing (82)
- ☐ Civil Engineering & Architecture (83)
- ☐ Aerospace Engineering (84)
- ☐ Environmental Sustainability (93)
- ☐ Biotechnical Engineering (85)
- ☐ Digital Electronics (86)
- ☐ Engineering Design & Development (Requires summary report of portfolio.) (87)

Computer Science Courses

- ☐ Computer Science Principles (formerly -Computer Science and Software Engineering) (92)
- ☐ Computer Science A (94)
- ☐ Cyber Security (95)

Bio-Medical Courses

- ☐ Principles of Biomedical Sciences (88)
- ☐ Human Body Systems (89)
- ☐ Medical Interventions (90)
- ☐ Biomedical Innovation (Requires summary report of portfolio / final project.) (91)

INSTRUCTOR/COURSE INFORMATION: ***(to be completed by PLTW Instructor) - current courses registering for only***

Course: _____ Final Grade: _____ Exam Date: _____ Exam Score: _____

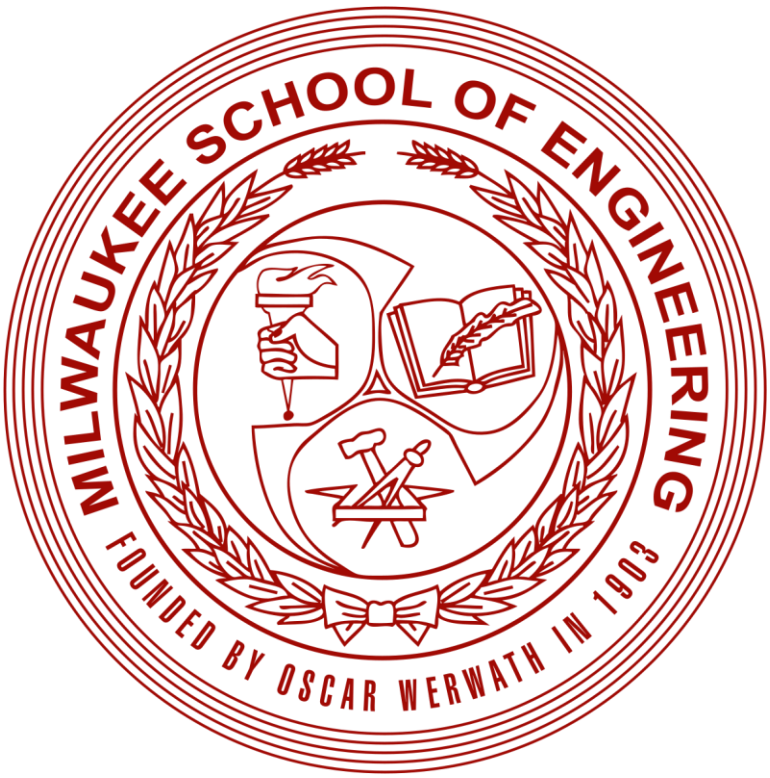
Instructor Name: _____ Instructor Signature: _____

Instructor Phone #: _____ Instructor E-mail Address: _____

For department use only:

Pmt received:	Check #:	SCSU Term: Summer Year: _____
Authorized by:		SCSU class #: ETS199 - Section: _____


MSOE
UNIVERSITY


MILWAUKEE SCHOOL OF ENGINEERING
FOUNDED BY OSCAR WERWATH IN 1903

UNDERGRADUATE COLLEGE CREDIT APPLICATION PROCEDURE

Based on the structure, relevance, and rigor of the Project Lead The Way (PLTW) course material, Milwaukee School of Engineering (MSOE), as the Affiliate University in Wisconsin, offers transcripted undergraduate credit to high school students who successfully complete all requirements listed below.

Student Eligibility Requirements

To receive undergraduate credit for PLTW courses from MSOE the student must meet the following eligibility requirements:

1. Complete the PLTW course at a registered PTLW school / meet the PLTW Access Recognition Level.
2. Successfully complete a PLTW course, as demonstrated by:
    1. A grade of B or higher in classroom course work **AND**
    2. A stanine score of 7 or higher on the end-of-course exam.

Students who do not meet ALL of the requirements listed above cannot be issued course credit from MSOE.

The Application Procedure

To receive undergraduate college credit through MSOE follow the application procedure described below. Please note that missing documentation will delay the credit application processing. Complete applications can expect to receive notification of credit award within 2-3 weeks from reception of the application.

1. The PLTW student completes the Undergraduate Credit Application form. Forms may be obtained on the www.pltwwi.org website under Program Quality and Credit on the menu bar.
2. The PLTW student submits end of course grades & Stanine scores one of the following ways:
    1. Verifies with course instructor if end of course grades and Stanine scores were sent to MSOE/ WI PLTW, **OR**
    2. On school letterhead and with teacher, guidance counselor, or adminstrator signature provides the following:
        - Student name
        - Course name & letter grade earned by student
        - Course name & stanine End of Course Exam score achieved by student
3. The PLTW student or parent includes payment of $200.00 per course. Please make checks payable to:

Milwaukee School of Engineering
Attn: Project Lead the Way
1025 North Broadway
Milwaukee, WI 53202

A MSOE transcript indicating college credit for the completed PLTW course will be mailed to the student by the MSOE Registrar's Office. Once this process has been completed a request to have additional transcripts forwarded to selected colleges may be made by sending in a transcript request to PLTW.

Milwaukee School of Engineering
Undergraduate Credit Application - PLTW

PERSONAL INFORMATION

Last Name	First Name	Middle Name	Preferred

Permanent Address		City/State/Zip

Home Telephone	Cellular Telephone	Preferred E-mail Address
( )	( )	

Birth Date		Social Security Number
/ /	☐ Male ☐ Female	

High School Name	High School Graduation Year

NON-REFUNDABLE $200.00 IS REQUIRED FOR EACH COURSE

	Course Name	MSOE Course	Teacher Name	Month & Year Exam was Taken	OFFICE USE ONLY	
					STANINE	GRADE
☐	POE	GE-1001		/		
☐	IED	GE-1002		/		
☐	DE	GE-1003		/		
☐	CIM	GE-1004		/		
☐	CEA	GE-1006		/		
☐	ES	GE-1008		/		
☐	CSP	GE-1009		/		
☐	PBS	BI-1001		/		
☐	HBS	BI-1002		/		
☐	MI	BI-1003		/		

Please submit your completed application and payment to:

Milwaukee School of Engineering
Attn: STEM Office
1025 North Broadway, Milwaukee, WI 53202

(414) 277-7238 STEM@msoe.edu
Payments in the form of check or credit card are accepted.

OFFICE USE ONLY
Received by ID: _____
Payment _____
PAID: _____
Registrar _____

STEVENSON

UNIVERSITY

Stevenson University Application Process

In order to apply for Stevenson University credit for PLTW courses, students must follow the steps below:

- At any time while you are taking the PLTW course sequence, complete the Intent to Apply Form. After you complete all of your PLTW courses, including Biomedical Innovation, print and complete the "Special Student Application - Project Lead The Way".

- Mail the completed Special Student Application, your official high school transcript showing the PLTW courses, and the required fee ($175 for 4 credits; $350 for 8 credits) to the address below. Checks should be made out to Stevenson University.

Meredith C. Durmowicz, Ph.D.
Dean, Beverly K. Fine School of the Sciences
Stevenson University
Kevin J. Manning Academic Center
11200 Ted Herget Way
Owings Mills, MD 21117

The application, transcript, and fee must be postmarked no later than August 1 of the year in which you complete the PLTW courses.

If you are asking your high school to send your transcript directly to SU, please ensure that they use the address above and not the general university address.

Upon receipt of all necessary forms and verification of all eligibility criteria, the requested courses with a grade of "P" will be entered on the student's Stevenson University transcript. A grade of "P" is equivalent to a C or better. Students may request an official Stevenson University transcript though the National Student Clearinghouse secure transcript ordering site.

Please Note: Stevenson University cannot guarantee whether or how any other institution will accept the credits that are offered for PLTW courses. Students planning to transfer their Stevenson University credits to another institution are advised to first check with their intended institution to confirm that the credits will be accepted. Syllabi for BIO 113, BIO 113L, and BIO 222 can be provided upon request, if needed. Please contact Dr. Durmowicz at mdurmowicz@stevenson.edu.

STEVENSON
UNIVERSITY
Imagine your future. Design your career.®

SPECIAL STUDENT APPLICATION – PROJECT LEAD THE WAY

I. INFORMATION ABOUT YOU

Please print clearly or type.

NAME:_____
Last First Middle

PERMANENT ADDRESS:_____
Number and Street City State Zip

PHONE NUMBER:_____ _____ COUNTY_____
Home Daytime

SOCIAL SECURITY NUMBER (Optional):_____ EMAIL:_____

ARE YOU OF HISPANIC OR LATINO ORIGIN? ☐ YES ☐ NO RACE:_____

OF WHAT COUNTRY ARE YOU A CITIZEN? ☐ U.S. ☐ PERMANENT U.S. RESIDENT ☐ OTHER (specify) _____

BIRTH DATE_____ PLACE OF BIRTH:_____
Month Day Year City/State

II. ENROLLMENT INFORMATION

I wish to receive credit for the following courses through my completion of the PLTW Biomedical Sciences Program (check ONE):

☐ BIO 113/BIO 113L General Biology I and General Biology I Laboratory (4 credits) $175

☐ BIO 222 Human Anatomy (4 credits) $175

☐ BIO 113/BIO 113L AND BIO 222 Human Anatomy (8 credits) $350

A check must be included for the total fee ($175 for 4 credits; $350 for 8 credits). Please make checks out to Stevenson University.

III. EDUCATIONAL BACKGROUND: HIGH SCHOOL

HIGH SCHOOL:

_____
Name City/State Dates Attended

HIGH SCHOOL WHERE PLTW COURSES WERE TAKEN (if different than above):

_____
Name City/State Dates Attended

IV. EXAM SCORE AND TEACHER CONFIRMATION

EXAM	DATE TAKEN	SCORE	TEACHERS NAME	TEACHERS SIGNATURE
PRINCIPLES OF BIOMED EXAM				
HUMAN BODY SYSTEMS EXAM				
MEDICAL INTERVENTIONS EXAM				

ADDITIONAL INFORMATION

To receive credit, students must do the following:

- Complete all four (4) courses of the PTLW Biomedical Sciences program.
- Achieve a minimum GPA of 3.0 in the four courses with no more than one grade of "C".
- Earn a score of 7 or higher on all required PLTW end-of-course exams.
- Complete the Special Student Application.
- Submit an official high school transcript showing the completion of the four PLTW courses with final grades.
- Submit a check for the amount shown in Section II made out to Stevenson University.

All materials must be postmarked no later than August 1st of the year in which a student completes the PLTW course sequence.

Student's Signature Date

Parent's Signature (Required only if student is under 18)