

# Project Lead the Way (PLTW) – Biomedical Sciences vs. TCHS Biomedical Program Comparison

Parameters	PLTW - Biomedical Sciences	TCHS Biomedical Program
Program Length:	4 years	4 years
Specialty Classes:	<ol style="list-style-type: none"> <li>1. Principles of Biomedical Science (1 year)</li> <li>2. Human Body Systems (1 year)</li> <li>3. Medical Interventions (1 year)</li> <li>4. Biomedical Innovation (1 year)</li> </ol>	<ol style="list-style-type: none"> <li>1. Health Science &amp; Clinical Skills (1 year)</li> <li>2. Epidemiology (1 year)</li> <li>3. Biotechnology (1 year)</li> <li>4. Honors Bioengineering (1 year)</li> <li>5. Honors Bioethics (1 year)</li> </ol>
Students can choose sequence of classes or number of classes:	No	Yes - Students need a minimum of 5 Biomedical specialty classes (listed above) or other classes (Biology, Chemistry, Anatomy & Physiology I/II, AP Chemistry, AP Biology) and are free to choose which classes to take and when to take them based on their own interests, abilities, and career aspirations.
Hands-On Learning:	Yes - With standard science equipment	Yes - With standard science equipment, in addition to our new Jesse James Hinson Clinical Simulation Lab, contains medical supplies, hospital beds, 2 mid-fidelity mannequins, and advanced health care technology.
Certifications in American Red Cross Adult & Pediatric First Aid, CPR, AED, Bloodborne Pathogens, and Stop the Bleed:	No	<p>Yes - Program Coordinator is a certified American Red Cross instructor</p> <p><i>Coming in 2021/2022 - Basic Life Support (BLS) Certification (This is the same certification received by EMTs, Nurses, etc.)</i></p>

# FAQs

## Is the TCHS Biomedical Program accredited?

There is no official accrediting body that certifies accreditation of high school programs such as PLTW or the TCHS Biomedical Program. Catholic High's curriculum is certified by the Maryland State Department of Education and is accredited by the Middle States Association. PLTW is accredited by The International Association for Continuing Education and Training (IACET) to provide continuing education credits (CEUs) for teachers of the program. Therefore, when teachers take PLTW training, it counts toward CEUs for the teachers who need to recertify their teaching licenses through the Maryland State Department of Education every 5 years.

## How did the TCHS Biomedical Program develop its unique curriculum?

Before Catholic High's Biomedical Program Coordinator, Ms. Peg Prentice, became a teacher, she worked as a Certified Nursing Assistant and as a Molecular Cell Biologist for the National Institutes of Health. Her experience working in the biomedical field gives her the experience needed to teach courses that will best prepare students for college acceptances and future employment. In addition to ongoing research in the field, she stays in contact with parents, college admissions officers, job recruiters, and alumnae working in biomedical careers to stay aware of current trends.

## What are the unique learning opportunities offered in the TCHS Biomedical Program?

Catholic High offers several unique learning opportunities for students enrolled in the Biomedical Program, such as:

**The Jesse James Hinson Clinical Simulation Lab:** The simulation lab, new in Fall 2020, contains a variety of medical supplies, including hospital beds and mid-fidelity mannequins. Students are able to learn several clinical skills used in healthcare facilities every day, such as head-to-toe examinations, taking vital signs, general patient care/hygiene, patient transport, wound care, intramuscular injections, IV therapy, phlebotomy, ECGs, CPR, defibrillation, nasogastric tube placement, oxygen administration, gastric lavage and gavage care, tracheostomy care, ileostomy and colostomy care, enema administration, male and female urinary catheterization, and more, as part of real-world scenarios similar to that which is offered in Nursing and Medical schools.

**Live from Surgery:** The Live from Surgery program is an opportunity offered in partnership with the Liberty Science Center. Students in the Biomedical Program watch a surgery that is live-streamed into Catholic High's auditorium and have the ability to speak with the surgical team in real time during the procedure. Live surgeries watched by our students include a robotic surgery, a kidney transplant, and a heart transplant.

**The Senior Immersion Trip to Floating Doctors in Panama:** Each year, 18 seniors in the Biomedical Program have the opportunity to experience a uniquely different culture, learn about global health and the remote healthcare setting, and challenge themselves in ways that can transform them for life. This trip combines our deeply rooted Franciscan Values with the biomedical skills that students learn in the program. They participate in a remote clinic deployment to an underserved population on an island off the coast of Panama, where they deliver health education and participate in clinic operations. They also visit an elder care facility, go snorkeling in a coral reef, walk through the rainforest, and tour an organic cacao farm.

## Does the TCHS Biomedical Program offer internships?

Internships are not a required component of the TCHS Biomedical Program, however students in the program have participated in experiences such as the NIH Summer Internship Program, The Perry Initiative Outreach Program, Johns Hopkins University's Summer Science Program, Adams Cowley Shock Trauma Unit Internship, Mercy Hospital Volunteering, and more. Several current students in the program also work in the biomedical field as Veterinary Technicians, Medical Assistants, EMTs, and Certified Nursing Assistants.

## What do alumnae of the TCHS Biomedical Program study in college?

Graduates of the TCHS Biomedical Program choose to study a variety of college majors, including Biology, Chemistry, Pre-Medical Studies, Nursing, Veterinary Science, Sports Medicine, Kinesiology, Physical Therapy, Speech-Language Pathology, Physician's Assistant Studies, Pre-Dental Studies, Bioengineering, Education, Public Health, Epidemiology, Pharmacology, Law, Surgical Technology, Radiology, Respiratory Therapy, Medical Imaging, Genetic Counseling, Psychology, and more.

Catholic High's Biomedical students stand out from their peers when it comes to college acceptances and employment opportunities because they gain unique, hands-on experience in the program. Several graduates of the program have reported that their college instructors and employers are impressed by the depth of knowledge and clinical skills they bring with them. At Catholic High, students are prepared for the 21st-Century with a curriculum and learning experiences rooted in the Franciscan Values, empowering them to let their light shine throughout their lives in service to others.