

Science



at

St. Ignatius High School

SCIENCE CLASSES

All students are required to take Biology, Chemistry, and Physics.
Freshman may apply for Honors Biology or Health Science Biology (admission is dependent on test results). Course offerings include:

- Biology**
- Honors Biology**

- Chemistry**
- Honors Chemistry**

- Physics**
- Honors Physics**

- ELECTIVES**
- AP Biology**
- Honors Anatomy & Physiology**
- AP Chemistry**
- AP Physics C**
- Marine Science**
- Environmental Science**

Grade Level	Sequencing
Grade 9	Biology or Honors Biology (elective)
Grade 10	Chemistry or Honors Chemistry
Grade 11	Physics, Honors Physics, or AP Physics C OR Elective: AP Bio; AP Chem; Anatomy and Physiology; Marine Science, Environmental Science
Grade 12	Elective: AP Bio; AP Chem; Anatomy and Physiology; Marine Science, Environmental Science OR Physics, Honors Physics, or AP Physics C

SCIENCE LABS

- 13 state of the art universal lab/classrooms.
- 12 lab stations per room.
- 1 handicap lab station per room.
- Vernier lab probe interfaces for all Biology and Chemistry classes.
- PASCO and Vernier lab probe interfaces for Physics.
- Interfaces and equipment are the same used in major universities.
- Ceiling mounted LCD projectors and sound system interfaced to student and teacher devices.
- Simulation software for Biology, Chemistry, and Physics.



CASE-WESTERN AND CLEVELAND CLINIC INTERNSHIPS

- These occur during summers between Sophomore and Senior years for Case Western and between Junior and Senior years for the Cleveland Clinic (students must be 16 and older to work in the labs)
- Students carry out state-of-the-art medical research with doctors and researchers.
- Students provide a presentation of their work in PowerPoint or in Poster format.
- Case-Western internships (exclusive to Ignatius) are offered through the Science Department.
- Cleveland Clinic internships are selected by the Cleveland Clinic from student applicants.
- NASA internships are offered through the school and chosen by the NASA administration





SCIENCE OLYMPIAD

– contact Tom Bogen at tbogen@ignatius.edu
<http://www2.ignatius.edu/clubs/olympiad/index.htm>

- Top ten finisher at the State Tournament over the last 7 years
- Runner up at Lorain Regional Competition for 2014
- Competition includes 23 events covering a wide range of topics in Science and Engineering



PRE-MED SOCIETY

The Pre-Med Society is a club designed to inform, promote, and build knowledge for those students (9th -12th grade) interested in a profession in the healthcare field. Twice a month (Wednesdays) the group meets to enjoy talks given by healthcare professionals ranging from various fields of medicine, and to participate in hands-on medical techniques (blood pressure, suturing, heart rhythms, etc.). All fields in the health sciences are explored.

Volunteer and shadow opportunities are made available through MedWorks and the Steering Committee professionals. Emphasis is placed on social justice.

ROBOTICS CLUB

- contact Bob Ward at bward@ignatius.edu
- Science Olympiad robotics; CWRU Lego Robotics contest; US FIRST Robotics and VEX contest.
- C and C++ Programming, Parallax Basic, and CAD/CAM available on campus.
- Students build electronics circuit boards, learn to use hand and power tools. See “Students Projects” for details.
- Students learn to design, build, and operate sophisticated robotic remote-controlled and autonomous devices to solve contest problems.



HEALTH SCIENCES PROGRAM



The Health Sciences program is a comprehensive program that introduces the student to a myriad of topics in the medical field (including medical research). The core curriculum includes five years of science courses and participation in specific extracurricula activities.

More information can be obtained from the Health Science Coordinator in the Science Department.



ENGINEERING SOCIETY



This group meets once a month to hear lectures from local professionals and alumni discuss advances in all areas of engineering (bioengineering, chemical engineering, mechanical, aerospace, etc.) as well as career opportunities in both these and emerging fields.

The Society is open to students of all four years.

