

Science

The Passion

The Jesuit High School Science Department aims to develop well-rounded students who possess critical thinking and problem solving skills, the ability to evaluate the risks/benefits of technology, an understanding of environmental and societal stewardship, content proficiency, spiritual growth through science related discussion and investigation, technological skills (lab techniques, computer simulations, Internet research), and an appreciation for excellence in all they do.

The Program & Philosophy

Jesuit High School requires three years of science, including one year in each of the core sciences: physics, biology and chemistry. Physics is the first course that students encounter.

We believe a physics-first curriculum allows students to apply their algebra skills immediately and better understand the world around them.

Ours is a college-preparatory curriculum with an emphasis on developing problem-solving skills and scientific literacy. We offer four science elective courses.

Science Course Offerings:

- Physics or Physics Honors
- Chemistry or Chemistry Honors
- Biology or Biology Honors
- AP Physics (Mechanics)
- AP Chemistry
- AP Biology
- APES (AP Environmental Science)

Advanced Placement Courses

63 of our students took an AP science exam in 2014. The following percentage of students earned a 3 or higher on their exam.

| | |
|---------------------------|--------|
| APES (AP Enviro Science) | 54.5%* |
| AP Chemistry: | 82.6% |
| AP Physics (Mechanics): | 84.1% |
| AP Biology | 93.3% |
| Electricity and Magnetism | 100% |

*1st year offered

ACT Scores

Unlike the SAT, the ACT tests a student's preparedness for a collegiate level science course. Jesuit High School students' average scores for last year are shown below along with the state averages.

2014 ACT Average Results

| Jesuit | Oregon |
|--------|--------|
| 25.3 | 21.1 |

Science Opportunities

The JHS Science Department understands the importance of providing as many science exposure opportunities for students as possible. We believe that through these opportunities interest and understanding of science will grow. Jesuit students currently participate in the following programs:

- **Robotics:** Involvement in robotics allows students to develop technical as well as teamwork and leadership skills. Robotics is coached by physics instructor Mr. Dan Calkins with the assistance of many mentors from the community.
- **Northwest Science Expo:** Students develop projects for the Northwest Science Expo research competition. Jesuit teachers provide help and mentorship whenever possible for students developing a project for this event.
- **BPA Science Bowl:** In this yearly competition sponsored by the Bonneville Power Administration (BPA), Jesuit students compete against teams from various schools in a tournament requiring them to answer questions related to all areas of science.
- **Linus Pauling Memorial Lectures:** This is a lecture series sponsored by ISEEP (the Institute for Science, Engineering and Public Policy) which features talks by prominent scientists from varied disciplines. There are six scientists per season, with lectures held at the First Congregational Church in Portland. This series has been well received by students as a co-curricular activity.

The People

The Jesuit High School Science Department consists of nine teachers. Our teachers actively seek professional development opportunities and are involved in the scientific community.

Science teachers at Jesuit have participated in the following programs:

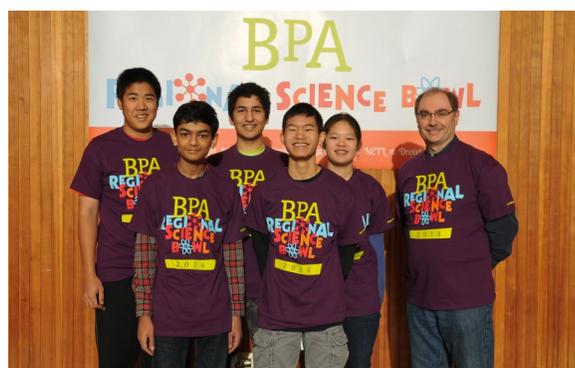
- MJ Murdock Charitable Trust Partners in Science Program
- Toyota International Teacher Program to the Galápagos Islands
- Earthwatch Teaching Fellowship
- Japan-U.S. Teacher Exchange Program for ESD (Education for Sustainable Development)
- Oregon AAPT Summer Physics Cohort

Science Placement

Students who demonstrate a strong understanding of algebraic concepts through their mathematics placement test or challenge test scores may take Physics Honors during freshman year. Otherwise, students spend their first year fulfilling their Fine Arts requirements while further developing their mathematics skills. These students take Physics or Physics Honors as sophomores. Our current freshman enrollment in Physics Honors is 73 students.



JHS students and teachers Brad Schaal (top) and Darrell Feebeck (bottom) at the 2014 BPA Science Bowl Competition



For more information, please contact: Brad Schaal, Science Department Chair,
bschaal@jesuitportland.org, (503) 292-2663, ext. 7435