

Science, Math & Technology Departments

Alison Simon, Science Department Chair

Damaris Kinney, Mathematics Department Chair

Dena Maye, Technology Department Chair



The Academy of the
HOLY CROSS

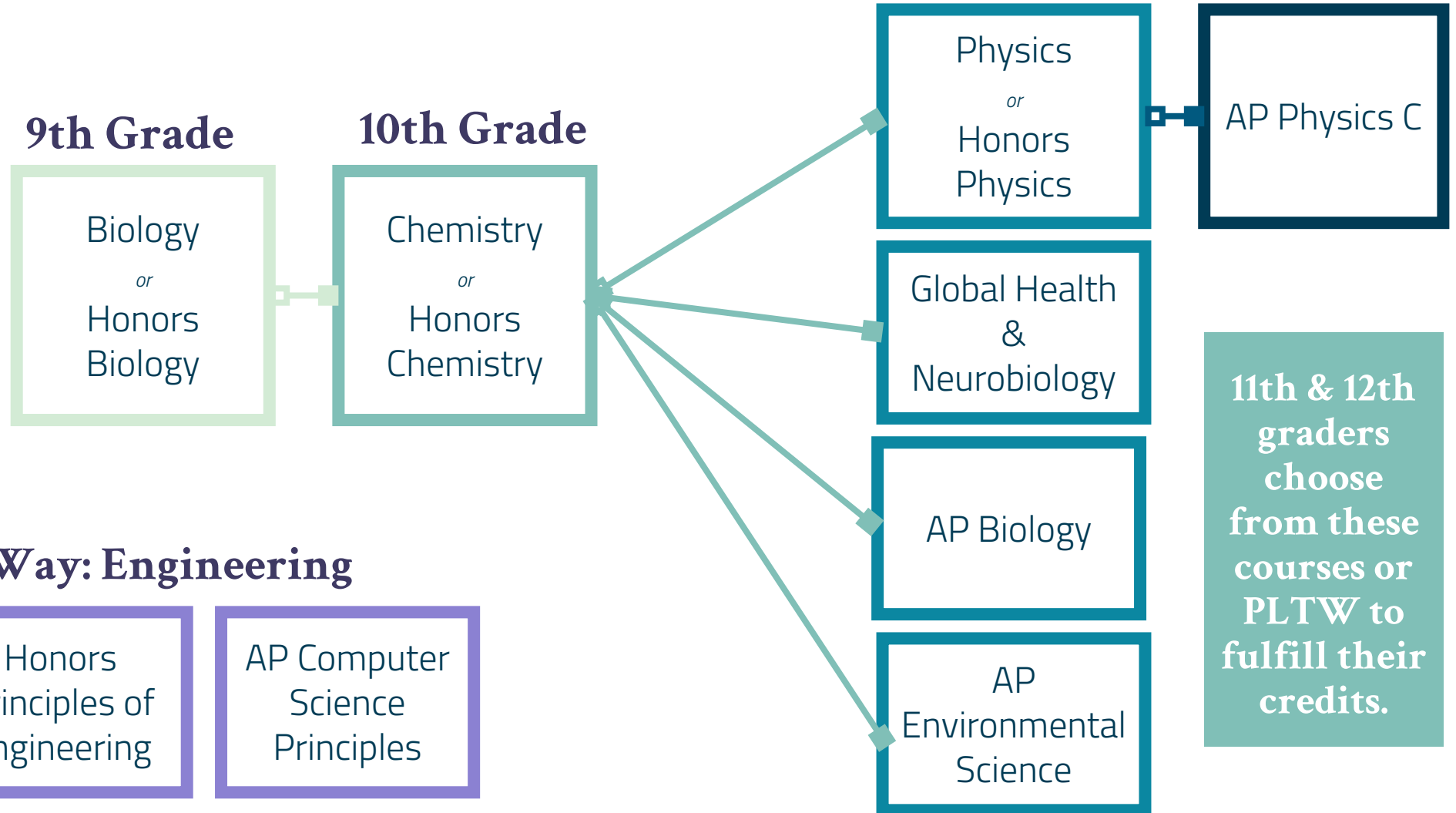
Science & Engineering

Alison Simon, Department Chair

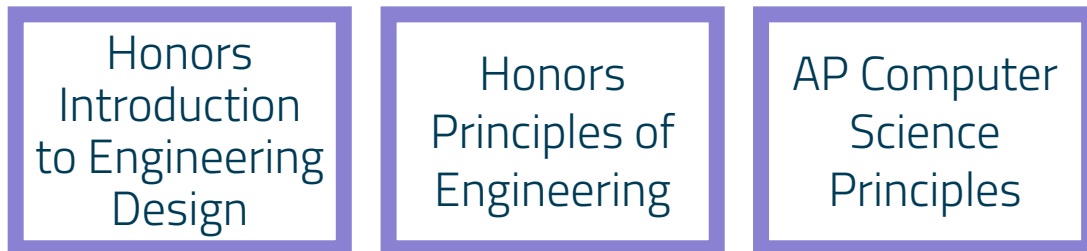
Wilson Bascom
Maria-Rose Cain
Sally Craven

Ashley Gardner
Dave Geiser
Minie James

Course of Study



Project Lead the Way: Engineering





Science @ Holy Cross

Scientific Literacy & Citizenship

- Encourage lifelong learning --science is a body of knowledge AND a *way* of knowing
- Graduate informed, global citizens who pose and evaluate arguments based on evidence



Science Does Not End in the Classroom

- Mentorship from faculty
- Student-led clubs and teams: FIRST Robotics, Science Alliance, Environmental Club, Botany Club, and Physics competitions.
- Science National Honors Society

Project Lead the Way

PLTW Engineering empowers students to step into the role of an engineer, adopt a problem-solving mindset, and make the leap from dreamers to doers.

Since adding PLTW to our curriculum over 50 students have qualified for college credit at Rochester Institute of Technology.

nationally
recognized

hands-on

project-based

problem-solving

collaborative

all girls



Mathematics

Damaris Kinney, Department Chair

Barbara Dobbs
Genevieve Kelley
Maureen James
Minie James
Rene Pulupa

*“It is clear that
the chief end of
mathematical study
must be to make the
students think.”*

– John Wesley Young
American Mathematician



Mathematics

General Overview

- 4-year requirement
- 15 different courses offered
- AP Calculus AB and BC, AP Statistics
- Multivariable Calculus in partnership with Georgetown Prep

Academic Supports

- Study hall to assist in their studies
- Teachers available before & after school
- Math Lab during lunch and after school
- National Honor Society tutoring

Math Class Placement

- 7th and 8th math grades
- Spring placement test
- HSPT (optional test for 2020)

Freshmen Year Options

- Algebra I or Honors Algebra I
- Geometry or Honors Geometry
- Algebra II with Analysis or Honors Algebra II
- Honors Precalculus

Please see website for math course sequencing.

Mathematics Sequencing Options

Year 1	Year 2	Year 3	Year 4
Algebra I	Geometry	Algebra II Algebra II with Analysis	Precalculus Precalculus with Analysis
Honors Algebra I	Honors Geometry	Honors Algebra II	Precalculus with Analysis Honors Precalculus
Geometry	Algebra II with Analysis Honors Algebra II	Precalculus with Analysis Honors Precalculus	Calculus Applications AP Calculus AB or BC AP Statistics
Honors Geometry	Honors Algebra II	Honors Precalculus	Calculus Applications AP Calculus AB or BC AP Statistics
Algebra II with Analysis	Precalculus with Analysis Honors Precalculus	Calculus Applications AP Calculus AB	AP Calculus BC AP Statistics
Honors Algebra II	Honors Precalculus	AP Calculus AB or BC	AP Calculus BC AP Statistics Multivariable Calculus*
Honors Precalculus	AP Calculus AB or BC	AP Calculus BC AP Statistics Multivariable Calculus*	AP Statistics Multivariable Calculus*

Technology

Dena Maye, Department Chair

“To me programming is more than an important practical art. It is also a gigantic undertaking in the foundations of knowledge.”

—Grace Hopper

“To create a more diverse and inclusive tech world, we need to inspire and empower the next generation of female role models to pursue and develop their career in technology and become innovators, leaders and entrepreneurs. It's a process and it's not always straightforward. It takes time, action and support. Join us on a mission! Together we can make a difference.”

—Anna Radulovski, Founder & CEO of Coding Girls

Technology

1 semester credit required for graduation

Year Courses

AP PLTW Computer Science Principles
Yearbook

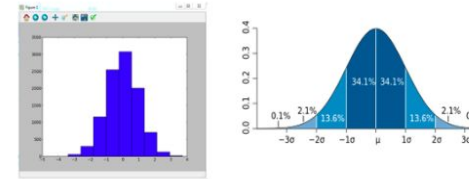
Semester Courses

Tech Concepts
Intro to Computer Programming
Multimedia Journalism

Extracurricular

Programming / Robotics Team

AP PLTW COMPUTER SCIENCE PRINCIPLES



You have just made *Python* pick 10,000 random numbers from a non-distribution (the “Bell” curve) and plot them in a histogram! Before diving into the power that the *Python* libraries will give you, you’ll want to learn the basics of the language. As you begin to learn *Python*, you’ll recognize some familiar elements from languages that we have used in the past as well as some new ones. After you learn a bit of one text-based programming language, learning other languages is much easier.

INTRO TO PROGRAMMING

```
#keep asking for scores as long as there's another score
#tally number of scores and total the scores
another_score = "y"
count = 0
total = 0
```

```
while another_score == "y":
    score = float(input("Enter score: "))
    count += 1
    total += score
    another_score = input("Do you have another score? ")
```

```
#calculate average and determine grade
average = total / count
```

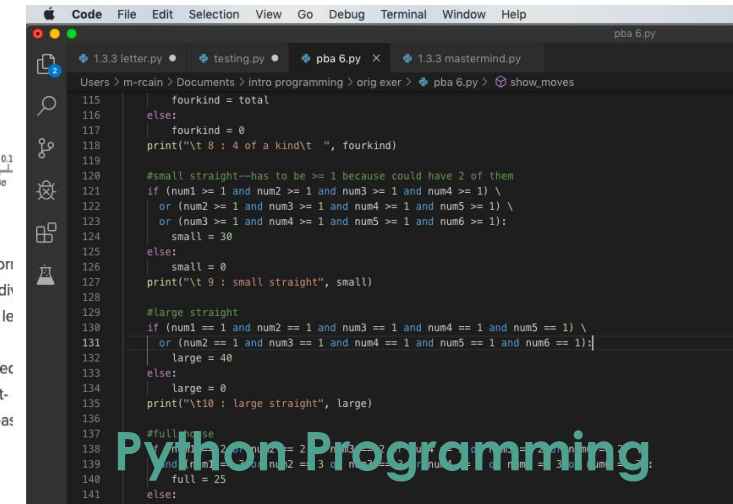
```
if average >= 90:
    grade = "A"
elif average >= 80:
    grade = "B"
elif average >= 70:
    grade = "C"
elif average >= 60:
    grade = "D"
else:
    grade = "F"
```

```
print("\n" + student + " has a " + format(average, ".1f") + " average which is
```

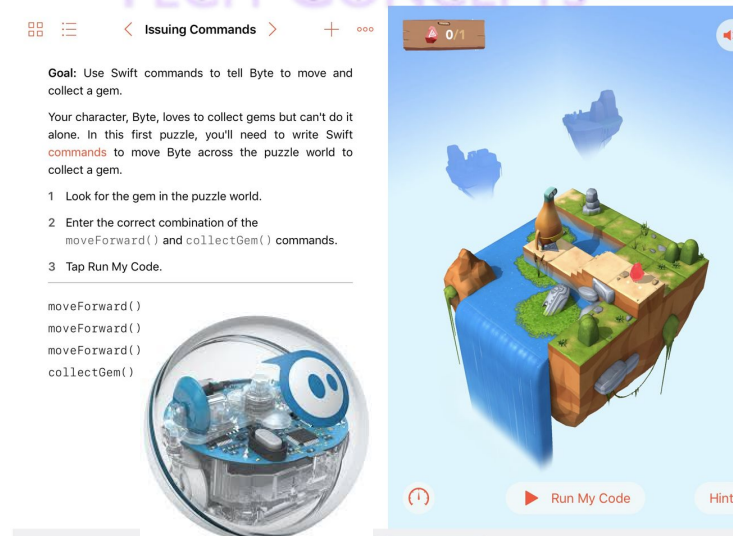
```
another_student = input("\nIs there another student? (y or n) ")
```



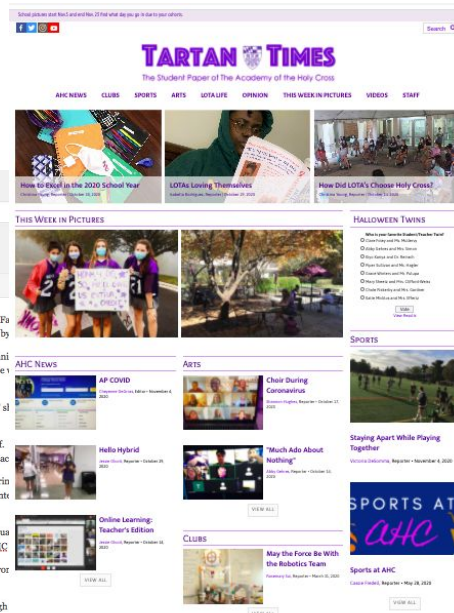
AP PLTW SCIENCE PRINCIPLES



TECH CONCEPTS



MULTIMEDIA JOURNALISM



Share

6 12 18 24 30 36 42 48

a spectacular trip
Junior Retreat




The junior class takes time to bond with one another and reflect on their faith.












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[Edit Story](#)

AHC's New Peace Promoter

Permalink: <https://tartantimes.org/t135/features/ahcs-new-peace-promoter/> Edit

 Add Media
  Add SNO Story Element
  Add Gallery

Paragraph ▼
 











AHC held a Peace Pole Dedication ceremony at the front of the school building on September 21. For the occasion, students read a message of peace in several different languages. The pole was hand-crafted by students and staff. Given the current state of the world, peace is a concept that has become difficult to fight for. Organizers of the ceremony explained that these peace poles have been placed all around the world must defend.

[pullquote speaker="Peace Pole Inscription" photo="" align="left" background="on" border="all" style="background-color: #f0f0f0; padding: 10px; border: 1px solid #ccc; margin: 10px 0;">Earth[/pullquote]

Sophomore **Kyra King** snared that the Peace Pole Dedication ceremony was enjoyable yet too brief. Because of the "negative things happening in the world and if even through a pole we can bring peace to the world," she said.

Sophomore **Natalia Giacchini** claimed that it was "cool to hear how other languages sounded" during the ceremony was necessary because "it stands for unity with all nations and that visitors will be introduced to other cultures." She explained that the Peace Pole Dedication ceremony helped her know what a Peace Pole is.

Sophomore Katherine Hefright stated that the ceremony was “interesting and very diverse in language she originally did not think the pole was important, but now she believes that it is good for the ~~ΔΙΓΚΑ~~ ΔΙΓΚΑ. Hefright thinks the Peace poll signifies “the diversity of the world and God’s people and that everyone other.”

The three students believe the pole stands for equality and unity amongst nations, and that through