

# Standard Science Courses

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**BITES**

**Biology in the Earth System**

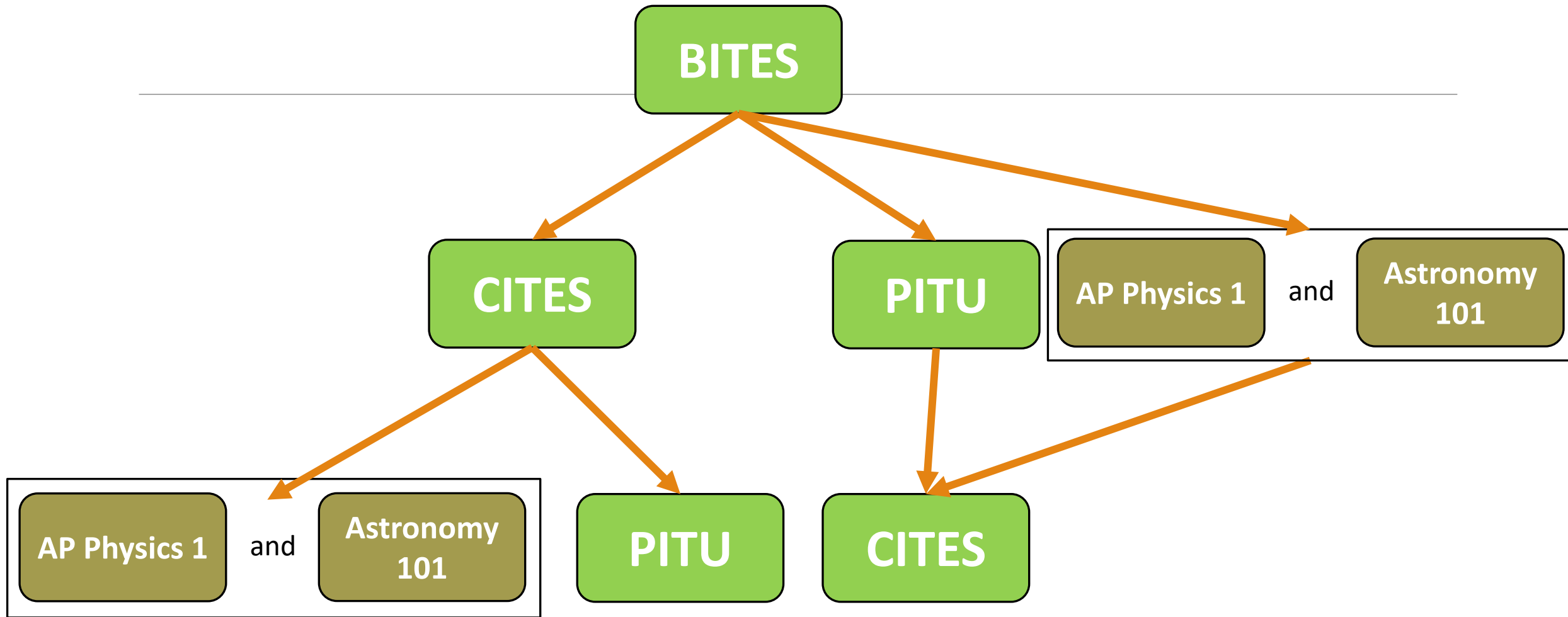
**CITES**

**Chemistry in the Earth System**

**PITU**

**Physics in the Universe**

# Science Pathways to cover all content on the WCAS



*In addition, AP and other Science Electives can be taken 10<sup>th</sup> – 12<sup>th</sup> grades*

# Chemistry in the Earth System (CITES)

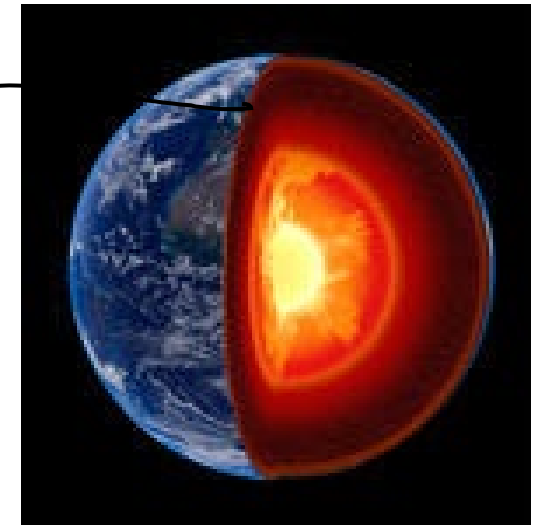
- Year-Long Course
- Counts for Lab Science Credit
- Integrated Honors Class

## Learn About...

- Atoms and their interactions
- The History of Earth
- Ocean Acidification
- Plate Tectonics
- The Chemistry of Climate Change

The Periodic Table of Chemical Elements

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# Physics in the Universe (PITU)

Year-long course on laws of universe

Understand ideas using *real life experiences*

Supports careers in *STEM* fields

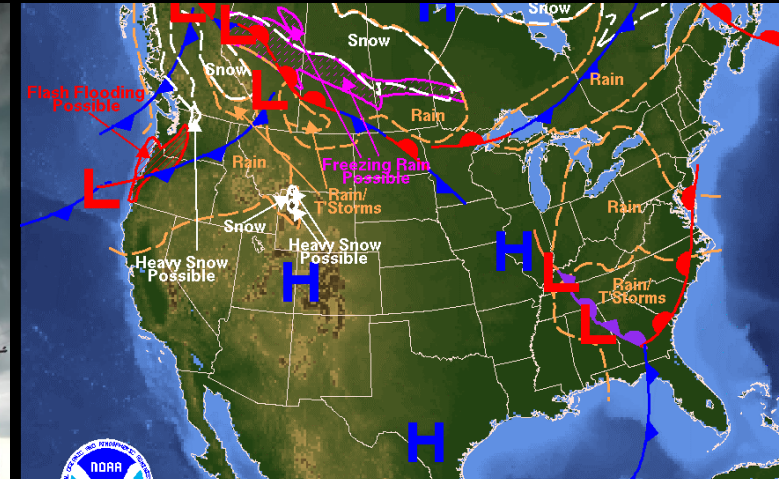
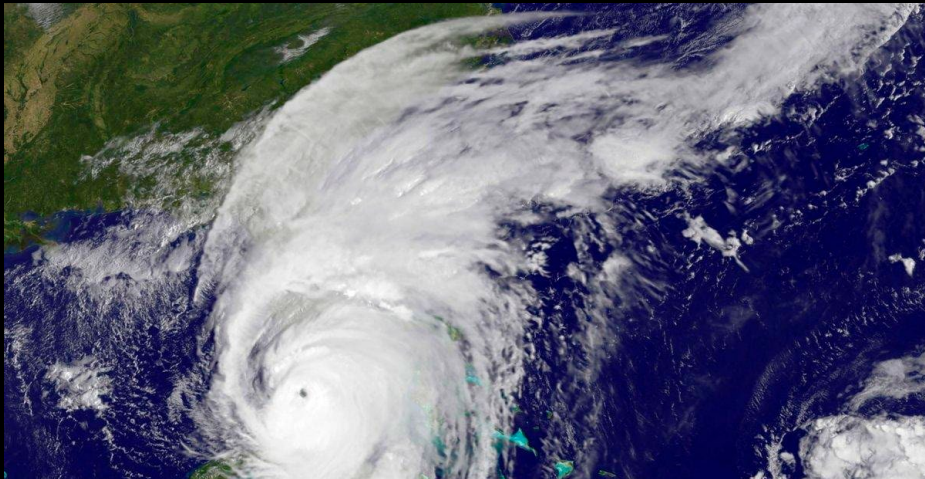
Makes you *attractive on university applications*

Teaches you science and  
engineering skills!

# Meteorology: Weather and Climate

1 Semester

- Climate Change
- Tornadoes
- Hurricanes
- Puget Sound Weather
- Wacky Weather

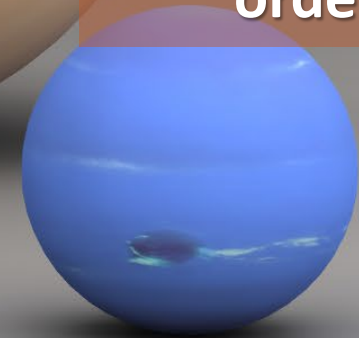




# Astronomy 150: The Planets

1 Semester  
1 full credit  
5 College Credits Available  
Constellations  
Planets, Asteroids, & Comets  
Star Parties  
Solar System Colonization  
Includes field trip!

Astronomy  
courses can be  
taken in any  
order



# Astronomy 101 - Stars

1 Semester

1 full credit

5 College Credits Available

Supernovae

Black Holes

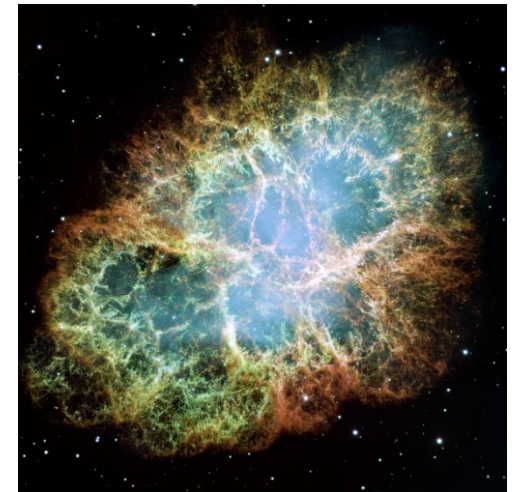
Big Bang

Watch Interstellar

Overnight Field Trip



**Astronomy  
courses can be  
taken in any  
order**





Now with cat  
dissection!

Interested in how the body works?  
Want to learn about health and medicine?  
Curious about diseases and disorders?

## **ANATOMY & PHYSIOLOGY: Movement and Transport!**

**Human body systems include:**

- Skeletal
- Muscular
- Cardiovascular
- Immune

Connections to nursing, PT, orthopedics, kinesiology





Now with cat  
dissection!

Interested in how the brain works?  
Want to learn about how your body  
uses nutrients?  
Curious about diseases and disorders?

## **ANATOMY & PHYSIOLOGY: Nerves and Nutrients!**

**Human body systems include:**

- Nervous
- Digestive
- Endocrine
- Respiratory

Connections to neuroscience, nutrition, health care



# Marine Biology: Human Impact

**1 Semester**—0.5 Science OR CTE Credits!

Explore these marine ecosystems:

- Kelp Forests
- Deep Sea
- Intertidal Zone

**Includes a fieldtrip and dissections!**

Look for course code CVC618 when you register!



# Zoology

## Biology of animals: form, function, and behavior



1 Semester

Class includes Observational Labs, Dissections, Anatomy, Species Studies

Skills: Presentation, Research, Reading, Dissection, Diagraming/drawing

# AP CHEMISTRY

- Topics include: bonding, kinetics, equilibrium, redox, acid/base and thermochemistry
- This is a lab-based science with potential to earn college credit
- The AP Exam is the primary focus of the course
- Challenging course
- Weekly homework (2-3 hours)



# AP Environmental Science (APES)

Learn about...

- Population growth
- Feeding the world
- Climate change's impact on the globe
- Taking care of animals
- Growing plants



Take part in a hands-on class and learn about relevant issues in our world.



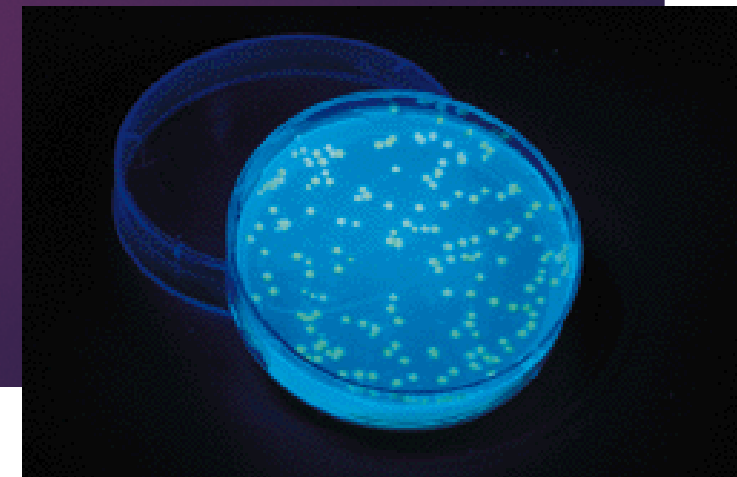
Apply everything you've learned in your high school career!



Biology Required, Chemistry taken concurrently or prior. Counts toward Science OR CTE!!

# AP BIOLOGY

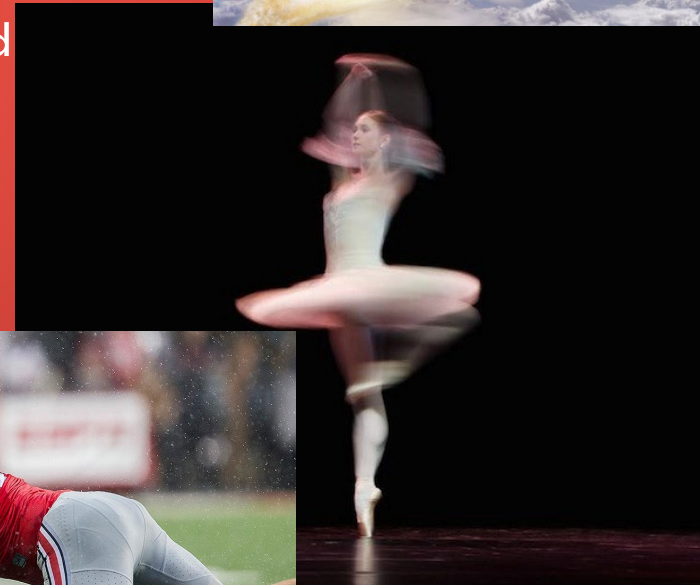
- **IN-DEPTH LEARNING OF HOW LIVING THINGS WORK**
  - All the intricacies of what makes us tick!
- **MANY DIFFERENT KINDS OF LAB EXPERIENCES**
  - Biotechnology, experimental design, data analysis
- **POTENTIAL TO EARN COLLEGE CREDIT**
  - AP Exam
- **OPPORTUNITIES TO WORK THROUGH MATERIAL WITH PEERS**
- **DEBATE BIOLOGICAL ETHICS**
- **CHALLENGING AND REWARDING!**
  - Students leave feeling **ACCOMPLISHED**
  - Helps prepare students for college science courses



# AP PHYSICS 1

No prior physics required!

- **Topics** include kinematics, forces, uniform circular motion, work, energy and power, impulse and momentum, rotational kinematics and dynamics, simple harmonic motion.
- **Class work** emphasizes *deep understanding of concepts through conversations and demonstrations relating mathematical equations to the ideas of real-life experiences.*
- **Math** is the language of physics. Successful completion of Algebra 2 is strongly recommended.
- **Homework** is critical to success and averages 45 minutes after every day of class.
- **Lab work** is emphasized for *hands-on understanding of concepts.* At least 25% of class time is inquiry-based laboratory experiences.
- **Astronomy 2** concurrent enrollment is expected to meet new state standards.





# AP PHYSICS 2

After PITU OR AP Physics 1

- **Topics** include fluid mechanics, thermodynamics, electricity and magnetism, light waves and optics, atomic and nuclear physics
- **Class work** emphasizes *deep understanding of concepts through conversations and demonstrations relating mathematical equations to the ideas of real-life experiences.*
- **Math** is the language of physics. Successful completion of Algebra 2 is strongly recommended.
- **Homework** is critical to success and averages 2 hours a week
- **Lab work** is emphasized for *hands-on understanding of concepts.* This includes simulations and hands-on labs.

AP Physics 1 recommended, but not required

(see Ms Petersen for more info)



# OTHER SCIENCE ELECTIVES

- **CULINARY ARTS AND COMPUTER SCIENCE**
  - MAY COUNT AS A SCIENCE ELECTIVE FOR GRADUATION, BUT COLLEGE/UNIVERSITY CREDIT MAY VARY
- PLEASE NOTE: THESE COURSES WILL NOT COVER THE CONTENT NECESSARY FOR THE STATE REQUIRED SCIENCE EXAM JUNIOR YEAR

