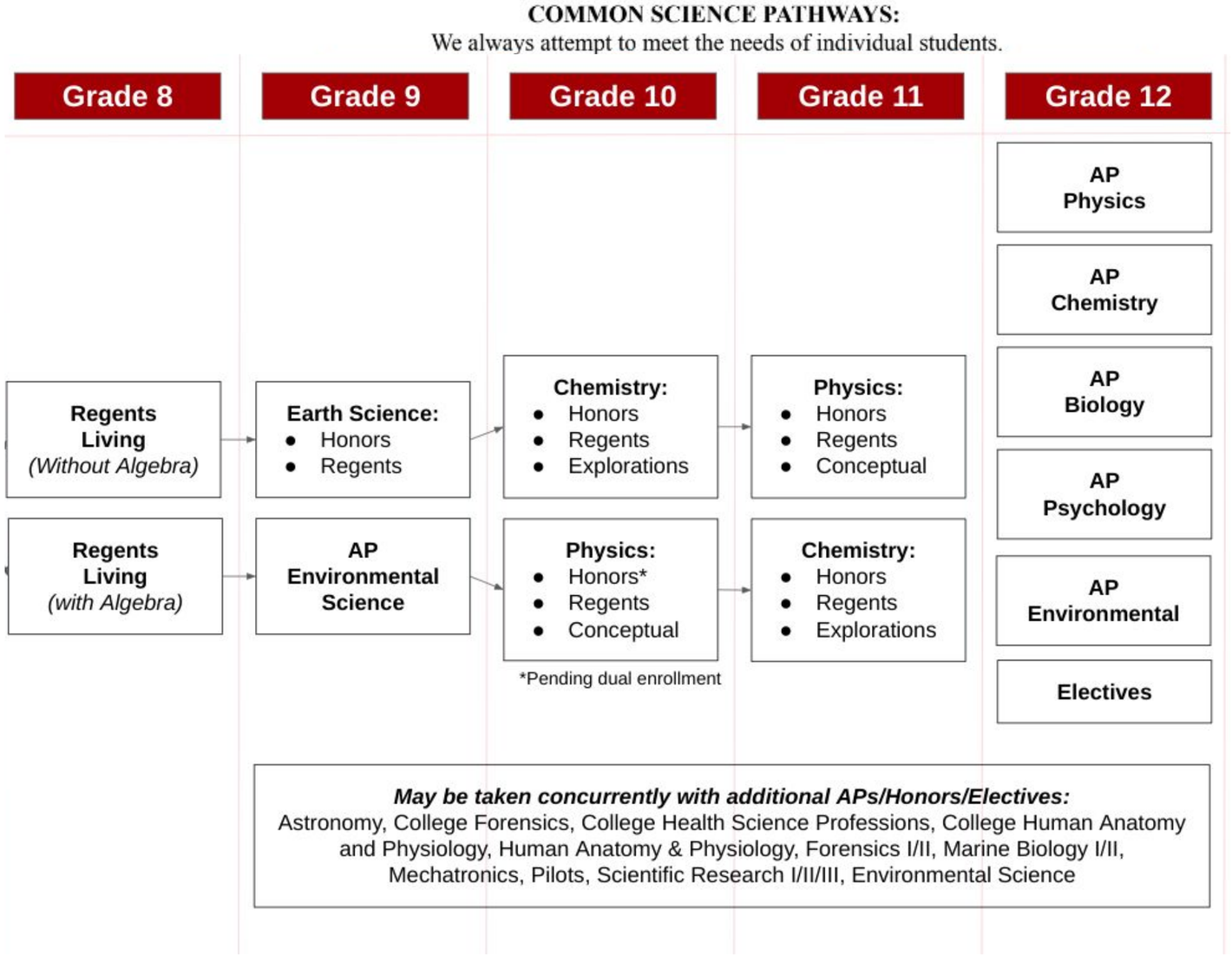
Glen Cove Science Course Pathways
2023-2024

Glen Cove Science Department
Current Pathway

Living Environment for All 8th Graders

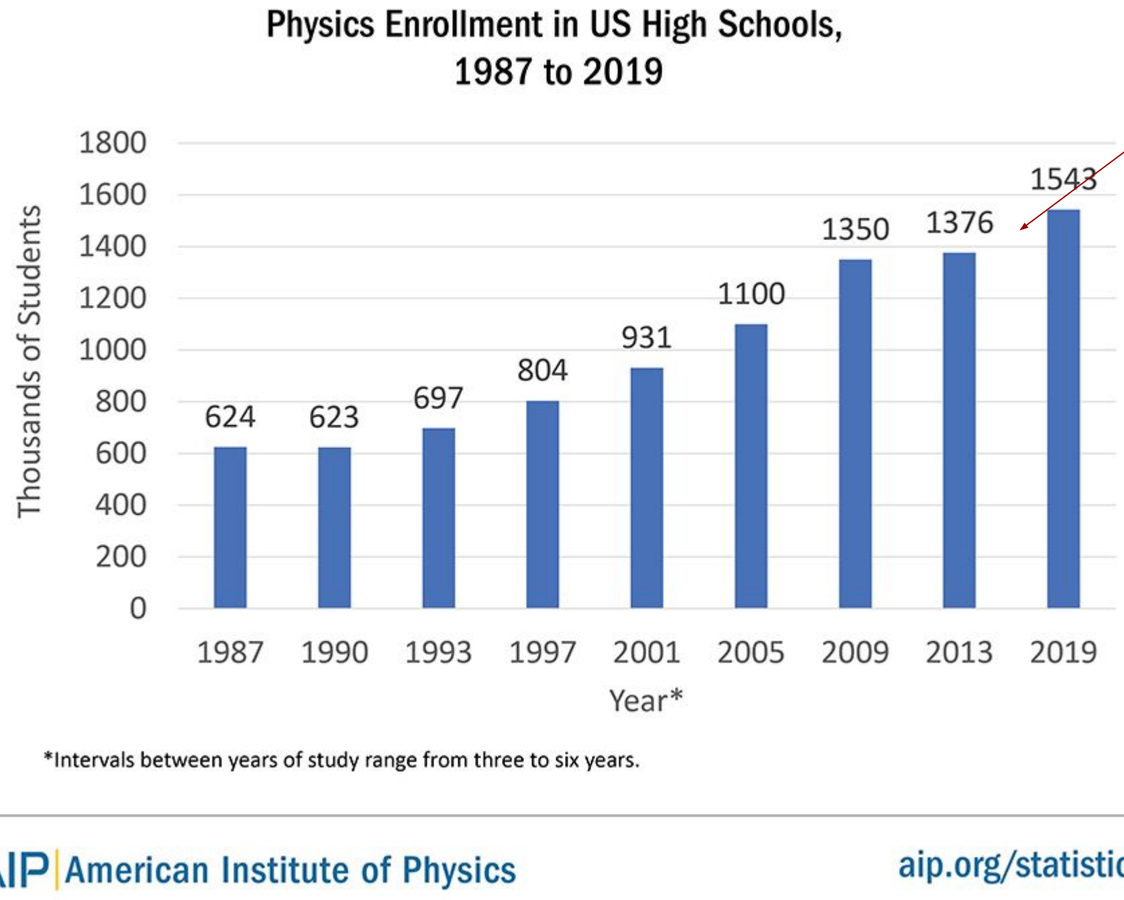


Graduation Requirements:

- 3 science credits (Living Environment & Physical Science) + 1 or more regents exams
- 2 Regents Exams - Advanced Regents Diploma
- Most Colleges & Universities expect 4 years of science

Districts that we have consulted with:

- Manhasset
- Seaford
- Mineola
- Long Beach
- Huntington
- Hewlett-Woodmere
- Rocky Point
- Great Neck
- Babylon
- Deer Park
- Westbury
- East Meadow



The number of students taking high school physics rose 12% from 2013-2019

Physics Enrollment Data

District	# of HS Students	# of Students Enrolled in a Physics Course	% of Students in Physics
Glen Cove City School District	1,048	14	1.34%
Manhasset	962	290	30.15%
Seaford HS	760	87	11.4%
Hewlett-Woodmere	1,010	111	11%
Rocky Point	921	59	6.40%
Babylon	475	16	3.37%
East Meadow	858	50	5.82%
Westbury High School	1700	45	2.65%

According to a study done by the University of California,

High School Students who do not take Physics courses are unlikely to pursue 70% of STEM Careers

FIRST IN NEWSDAY

Hochul: $46.5 million in training grants for three colleges

Farmingdale State College, Long Island University and Stony Brook University will receive state grants as part of a $46.5
project to prepare students and others for careers in high technology fields, Gov. Kathy Hochul announced on Tuesday. (

Farmingdale State president John Nader said the initiative "will yield a growing supply of talented graduates and skilled professionals to serve the region's tech sector." He said the college awarded more than 500 degrees last academic year in computing and information technology.

At LIU, university president Kimberly R. Cline said its $10 million grant will help build a 40,000-square-foot facility for the College of Science Applied Research and Innovation. The $30 million project will create 70 jobs on the Post campus.

She said LIU plans to introduce new majors in artificial intelligence, digital engineering and drug discovery and production. It also will provide space in the new building for high-tech startups and encourage the commercialization of inventions from the School of Pharmacy and Veterinary Medicine.

"What aerospace was to Long Island's success in the past, life sciences will lead to our prosperity in the future," Cline said, referring to biotechnology companies, drug and vitamin manufacturers and medical research.

College & Universities Majors that Require College-Level Physics and/or Chemistry Courses

- ***Nassau Community College***
  - Allied Health Sciences
    - Nursing
    - Medical Lab Technician
    - Physical Therapy
    - Radiation Therapy
    - Radiologic Technician
    - Respiratory Care Technician
    - Surgical Technician
  - Veterinary Medicine
  - Pre-Med/Pharm/Dentistry/Physical Therapy

- ***University of Connecticut***
  - Science Education
  - Allied Health Sciences
  - Agriculture and Natural Resources
  - Animal Sciences
  - Computer Science
  - Dietetics
  - Environmental Studies

- ***LIU Post***
  - Artificial Intelligence
  - Forensic Science
  - Radiologic Technology
  - Veterinary Technology

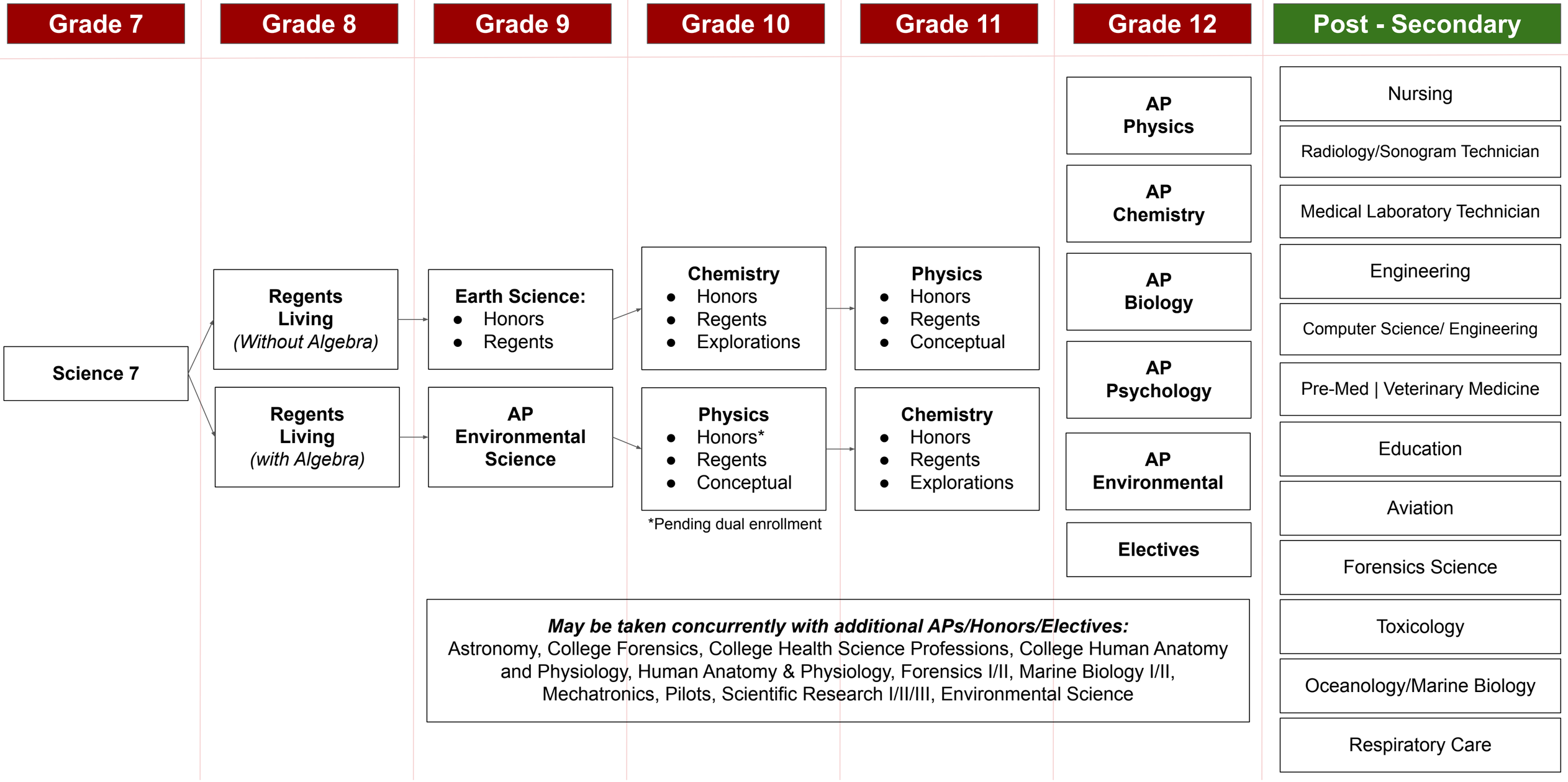
- ***Holy Cross***
  - Forensics Science
  - Medical School
  - Dental School
  - Nurse Practitioner
  - Optometry
  - Pharmacy Program
  - Physical Therapy
  - Physicians Assistant
    - *Many schools are moving away from remedial classes. For example, in freshman Chemistry (CHEM181) students who, in theory, may have never taken HS Chemistry, could be sitting next to students who have received a 5 on the AP Chemistry exam and are held to the same expectations.*

What does this mean for Students at Glen Cove?

- **Focused conversations with students regarding goals and courses that will align with goals**
  - *Advise students interested in STEM majors and careers, on the significant impact of large deficits in academic credentials on college performance (Recommendation from the U.S Commission on Civil Rights).*

- **Ensuring students are given every opportunity to be successful in their futures**
  - *A selective college or university should not admit any student with a large deficit in academic credentials relative to its median student without fully informing the student of the impact that this deficit could have. Such deficits place students at a high risk of failure (Recommendation from the U.S Commission on Civil Rights).*

- **Encouraging students to follow the science pathways and engage in exploratory physics/chemistry courses (offering elective courses concurrently with fundamental core sciences).**
  - *Physics is widely considered to be a building block for a range of STEM disciplines, and taking the course in high school is strongly correlated with getting a degree in a STEM fields. Employment in STEM fields has growth at a faster rate than overall job growth (Hechinger Report)*


Grade 7
Grade 8
Grade 9
Grade 10
Grade 11
Grade 12
Post - Secondary
Science 7
Regents Living (Without Algebra)
Regents Living (with Algebra)
Earth Science:
Honors
Regents
AP Environmental Science
Chemistry
Honors
Regents
Explorations
Physics
Honors*
Regents
Conceptual
*Pending dual enrollment
Physics
Honors
Regents
Conceptual
Chemistry
Honors
Regents
Explorations
AP Physics
AP Chemistry
AP Biology
AP Psychology
AP Environmental
Electives
May be taken concurrently with additional APs/Honors/Electives:
Astronomy, College Forensics, College Health Science Professions, College Human Anatomy and Physiology, Human Anatomy & Physiology, Forensics I/II, Marine Biology I/II, Mechatronics, Pilots, Scientific Research I/II/III, Environmental Science
Nursing
Radiology/Sonogram Technician
Medical Laboratory Technician
Engineering
Computer Science/ Engineering
Pre-Med | Veterinary Medicine
Education
Aviation
Forensics Science
Toxicology
Oceanology/Marine Biology
Respiratory Care