GCHS New Course Proposals 2018-2019

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Cassandra Shannon, Coordinator of Math
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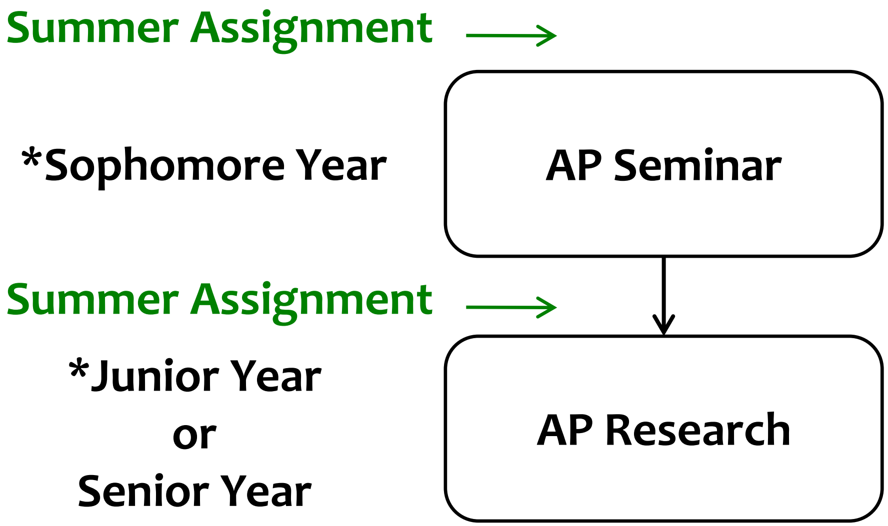
AP Research

- **Purpose**: This is the second course in the AP Capstone program.
- **Expectation:** Students will explore an academic topic, problem, societal issue, or concept that interests them.
- **Process:** Students will engage in a yearlong exploration that ultimately responds to a research question.



Summer Assignment →

*Sophomore Year

AP Seminar

Summer Assignment →

*Junior Year
or
Senior Year

AP Research

AP Research

1. Inquiry Process and Exploration
   - Students evaluate the credibility of different perspectives
   - Students consider the value of asking and answering questions
   - Students investigate solutions
2. Understand and Analyze
   - Students decipher numerous texts and academic journals
3. Evaluate Multiple Perspectives
   - Students consider the complexities of their arguments
   - Students identify biases and assumptions associated with their arguments
4. Synthesize
   - Students add and organize the information presented by others, rather than repeat
5. Establish a medium for presenting

AP Research

Students are assessed with the following performance tasks:

- Academic Paper
    - Internship
- Presentation and Oral Defense
    - Content
    - Process
    - Methodology

Reading and Responding to Fiction and Nonfiction

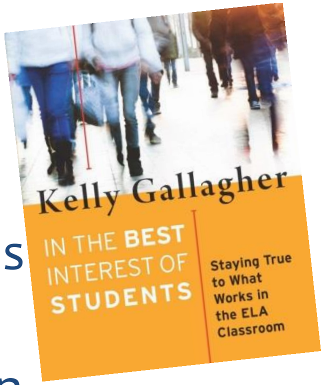
- **Purpose:** The course will provide instructional support for our struggling readers and writers.

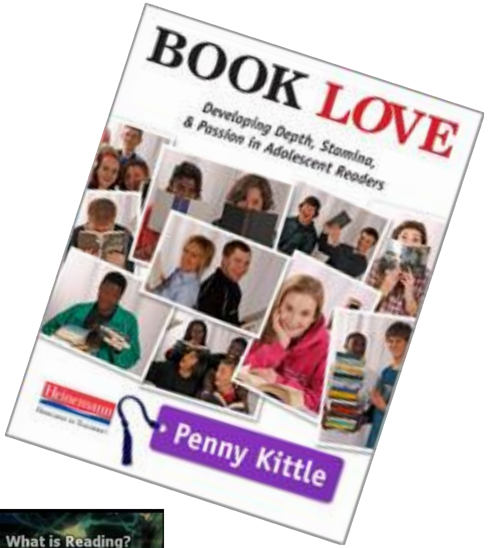
- **Expectation:** The course will be designed around a balanced literacy model. Students will establish valuable reading habits.

- **Process:** Choice → Volume → Complexity

Reading and Responding to Fiction and Nonfiction

- Supplemental Instruction
  - Research-Based Instructional Strategies
  - Data-Driven
- Framework
  - High-Success Reading
  - Minilessons
  - Conferences / Small Groups
- Assessment
  - Goal Setting and Reflection
  - Parallel Tasks
  - Progress Monitoring
  - Anecdotal Notes





GLEN COVE HIGH SCHOOL SCIENTIFIC RESEARCH PROGRAM

Summer Assignment →

***9th Grade**
(May be 10th Grade)

***Scientific Research Literacy**

↓

Summer Assignment →

10th Grade
(May be 11th Grade)

Second Year Scientific Research

↓

Summer Research →

11th Grade
(May be 12th Grade)

Third Year Scientific Research

↓

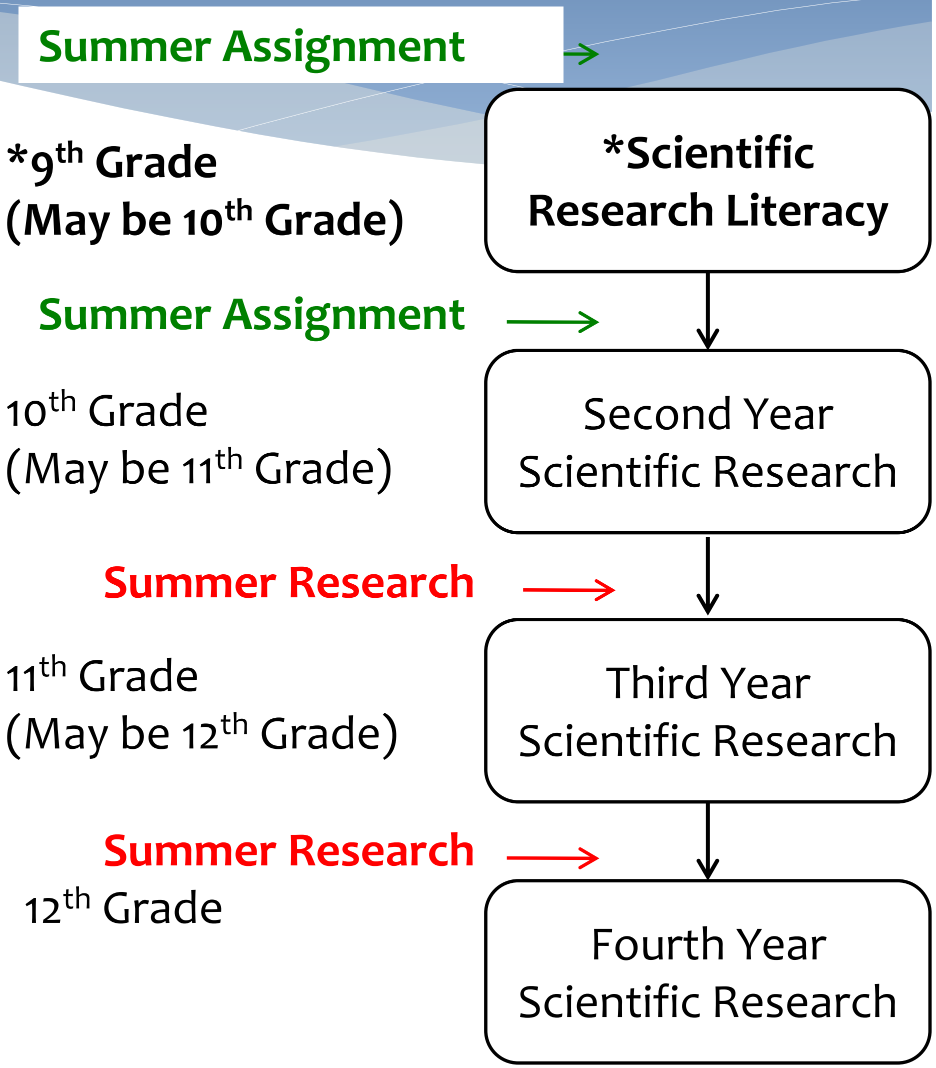
Summer Research →

12th Grade

Fourth Year Scientific Research

GLEN COVE HIGH SCHOOL SCIENTIFIC RESEARCH PROGRAM

- **Purpose**: to write an original research proposal, complete an **independent research project** and write a scientific paper to submit to scientific competitions senior year
- **Expectation:** students who enroll in the Scientific Research Literacy class will complete the four-year research sequence
- **Exception**: students who become motivated to join the Research Program after their freshman year, may join the program with teacher recommendation and/or approval from administration



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(May be 10th Grade)

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Summer Assignment →

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(May be 11th Grade)

Second Year Scientific Research

Summer Research →

11th Grade
(May be 12th Grade)

Third Year Scientific Research

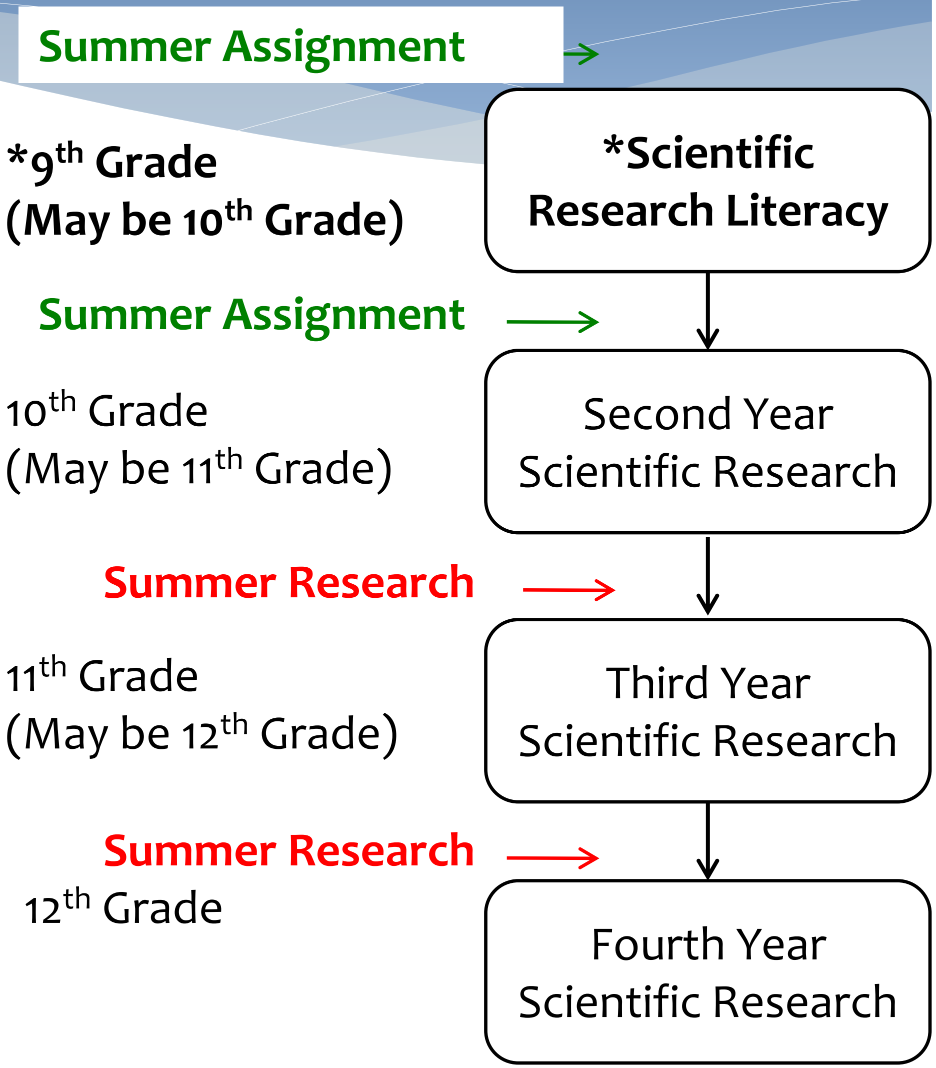
Summer Research →

12th Grade

Fourth Year Scientific Research

GLEN COVE HIGH SCHOOL SCIENTIFIC RESEARCH PROGRAM

- **Timeline**: students spend **two summers** working on their **independent research project** as volunteers, with an outside mentor at a local university or laboratory
- **Specifics**: students also participate in a variety of problem-solving and skill-building activities to complete both individual and team projects within the classes that may also be submitted to scientific competitions



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SECOND YEAR SCIENTIFIC RESEARCH

(Anticipated start date: 2018-2019)

TOSHIBA | NSTA ExploraVision

LISC
Long Island Science Congress, Inc.

Northwell Health®

2018 Medical Marvels Research Competition
A research competition for students in grades 9 and 10

- **Continues** from the **Scientific Research Literacy** class.
- Students will **read and analyze research journals**, design, and conduct experiments.

- **First semester**: students will **create research reports** that can be submitted to science competitions e.g.: *Northwell Medical Marvels, Toshiba Exploravision, or Long Island Science Congress (LISC).*

- **Second semester**: students will find **mentor scientists** at local **university laboratories** working in areas of interest to them to serve as project mentors.

- **Prerequisite**: Scientific Research Literacy and/or recommendation of Science Coordinator
- **Co-requisite**: Chemistry, or Earth Science

New Math Course Proposal

Computer Science Essentials

PLTW

Course Content

- Introduction to Coding Fundamentals
- Creating Apps
- Developing Websites
- Programming using Python language

Training Cost

- 2 week training by Project Lead the Way
    - Summer 2018
    - Cost of $2000

Digital Film Making

- **Purpose** – This course will expand the scope of the TV Studio while offering an opportunity for students to achieve college and career readiness.
- **Expectation** – Students will write, produce, direct and edit a fictional short film.
- **Process** - Students will learn the complexities of film making acquiring 21st Century skills in screenwriting, storyboarding, casting, cinematography, sound reinforcement, lighting, all while collaborating with a team of peers.