How do I get into Pawling High Science Research?

Pawling High School’s Science Research Program is a three-year science elective that also allows you to study a science topic of your choosing. You will then find a mentor in your field of study and then design and carryout a unique experiment. Your senior year will be spent refining your scientific paper and presentation to compete in multiple competitions.

Do how do I get into this amazing program that will be the envy of all my friends? Here is a list of each of the steps that you will need to complete to be allowed into this program.

**Requirements**

1. Parent and student checklist signed and returned
2. You and a Parent/Guardian MUST attend the Introductory meeting on **Thursday February 16th at 7pm** in the PHS cafeteria. Both you and a parent/guardian must attend.
3. You MUST attend the end of the year Science Research Symposium on **Thursday June 1st 6:30-10:00 pm** at PHS. Both you and a parent/guardian must attend.
4. Sign up for the course during the regularly scheduled registration period with your guidance counselor.
5. Email Ms. Rinaldo your personal essay answers to the prompt on the **summer assignment** **before July 31st**.
6. Read, Review, and summarize 10 articles in your areas of interest which will be **due on the 1st day of school, in addition to anything else included in the summer assignment.**

**PHS Science Research**

**POSSIBLE AREAS OF RESEARCH**

|  |  |  |
| --- | --- | --- |
| **ANIMAL SCIENCES** | **EARTH & PLANETARY SCI** | **ENVIRONMENTAL SCIENCES** |
| Development | Climatology, Weather | Air pollution and Air Quality |
| Ecology | Geochemistry, Mineralogy | Soil Contamination and Soil |
| Animal Husbandry | Paleontology | Quality |
| Pathology  | Geophysics | Water Pollution and Water |
| Physiology | Planetary Science | Quality |
| Population Genetics | Tectonics |  |
| Systematics |  | **MATHEMATICAL SCIENCES** |
|  |  | Algebra |
| **BEHAVIORAL & SOCIAL SCI**Clinical & Developmental | **ENGINEERING: Electrical and Mechanical** | AnalysisApplied Mathematics |
| Psychology | Electrical Eng., Computer Eng., | Geometry |
| Cognitive Psychology | Controls | Probability and Statistics |
| Physiological Psychology | Mechanical Engineering |  |
| Sociology | Robotics | **MEDICINE & HEALTH SCIENCES** |
|  | Thermodynamics, Solar | Disease Diagnosis & Treatment |
| **BIOCHEMISTRY** |  | Epidemiology |
| General Biochemistry | **ENGINEERING: Material and** | Genetics |
| Metabolism | **Bioengineering** | Molecular Biology of Diseases |
| Structural Biochemistry | Bioengineering | Physiology and Pathophysiology |
|  | Civil Engineering |  |
| **CELLULAR & MOLECULAR** | Construction Engineering | **MICROBIOLOGY** |
| **BIOLOGY** | Chemical Engineering | Antibiotics, Antimicrobials |
| Cellular Biology | Industrial Engineering | Bacteriology |
| Cellular and Molecular Genetics | Processing Material Science | Microbial Genetics |
| Immunology |  | Virology |
| Molecular Biology | **ENERGY & TRANSPORTATION** |  |
|  | Aerospace and Aeronautical | **PHYSICS AND ASTRONOMY** |
| **CHEMISTRY** | Engineering | Atoms, Molecules, Solids |
| Analytical Chemistry | Aerodynamics | Astronomy (data analysis) |
| General Chemistry | Alternative Fuels | Biological Physics |
| Inorganic Chemistry | Fossil Fuel Energy | Instrumentation and Electronics |
| Organic Chemistry | Vehicle Development | Magnetics and Electromagnetics |
| Physical Chemistry | Renewable Energies | Nuclear and Particle Physics |
|  |  | Optics, Lasers, Masers |
| **COMPUTER SCIENCE** | **ENVIRONMENTAL**  | Theoretical Physics, Theoretical  |
| Algorithms, Data Bases | **MANAGEMENT** | or Computational Astronomy |
| Artificial Intelligence | Bioremediation |  |
| Networking and Communications | Ecosystems Management | **PLANT SCIENCES** |
| Computational Science | Environmental Engineering | Agriculture/Agronomy |
| Computer Graphics | Land Resource Management, | Development |
| Software Engineering | Forestry | Ecology |
| Programming | Recycling | Genetics |
| Languages | Waste Management | Photosynthesis |
| Computer System |  | Plant Physiology |
| Operating System |  | Plant Systematics, Evolution |