

PROGRAM OF STUDY

NATURAL SCIENCES & ENGINEERING CONCENTRATIONS

Oak Harbor High School

What are the Natural Sciences & Engineering Concentrations?

The Natural Sciences & Engineering Concentrations consist of a variety of courses where students develop skills, understand concepts, and explore opportunity in depth within the areas of natural sciences. While these concentrations are available to all students, it is particularly well suited for students who:

- Enjoy assembling, designing, building, or repairing things.
- Enjoy working with tools and various technologies.
- Have the ability to work accurately and precisely.
- Tend to score high on **Realistic** or **Technical** scales when taking interest inventories.
- Tend to score high on **Investigative** or **Scientific** scales when taking interest inventories.
- Are curious about the role of design and technology in our world.
- Enjoy working with data, ideas, and things
- Have the ability to work accurately and precisely.
- Enjoy using testing and analysis to solve complex problems and questions.
- Enjoy aiding, instructing, or protecting others.
- Are interested in education, employment, or activities after high school using their analytical and technical talents and interests.

What concentrations are available within the Natural Sciences & Engineering Concentrations?

The following 2.0 credit concentrations are available within the Natural Sciences and Engineering Concentration. Although students may take these course concentrations to meet their Program of Study graduation requirement anytime during their high school experience, it is recommended that they take the courses between their 10th and 12th grade years. Courses with an asterisk (*) indicate that college credit may be earned.

Career and Technical Education

(any 2 credits from the following)

Automotive

- Basic Automotive Maintenance (.5 credit)
- Advanced Automotive Tech* (2 credits)

Construction

- Wood Technology (.5 credit)
- Cabinetry & Woodworking (.5 credit)
- Building Construction* (1.0 credit)

Engineering

- Computer Aided Drafting* (1 credit)
- 3D Modeling* (.5 credit)
- Architectural Design (.5 credit)

Technology

- Technology Foundations (.5 credit)
- Applied Physics (.5 credit)
- Electronics* (1 credit)
- Computer Maintenance* (1 credit)
- Robotics and Automation* (.5 credit)

Metals

- Metal Fabrication* (1 credit)
- Technology Foundations (.5 credit)
- Applied Physics (.5 credit)

Medical Careers

- Sports Medicine & Internships* (2 credits)
- Human Body & Medical Internships* (2 credits)
- Prof. Worksite Internships* (.5 credit)
- Psychology (.5 credit – Social Studies)

Science

(any 2 credits from the following)

- Scientific Systems & Inquiries (1 credit)
- Biology (1 credit)
- Chemistry (1 credit)
- Earth Science (.5 credit)
- Environmental Science (.5 credit)
- Horticulture (.5 credit)
- Marine Biology (.5 credit)
- AP Biology (1 credit)
- AP Physics (.5 credit)
- Physics (1 credit)
- Earth Science (.5 credit)
- Environmental Science (.5 credit)
- Electronics* (1 credit)
- Robotics & Automation* (.5 credit)
- Sports Medicine & Intern.* (2 credits)
- Technology Foundations (.5 credit)

Sports Science & Recreation

(any 2 credits from the following)

- Sports Medicine & Intern.*(2 credits)
- Biology (1 credit)
- AP Biology (1 credit)
- Physics (1 credit)
- AP Physics (.5 credit)
- Chemistry (1 credit)
- AP Chemistry (1 credit)
- Psychology (.5 credit-Social Studies)
- Fit for Life (.5 credit)
- Backpacking/Survival (.5 credit)
- Aerobics/Conditioning (.5 credit)
- Sports/Entertainment Mrkt* (.5 cr.)

Health & Fitness (P.E.)

(any 2 credits from the following)

- Fit for Life (.5 credit)
- Aerobics/Conditioning (.5 credit)
- Basketball/Fitness (.5 credit)
- Backpacking/Survival (.5 credit)
- Life Sports (.5 credit)
- Nutrition/Weight Mgmt.(.5 credit)
- Soccer/Fitness (.5 credit)
- Racket Sports/Fitness (.5 credit)
- Team Sports(.5 credit)
- Tumbling/Self Defense (.5 credit)
- Varsity Conditioning (.5 credit)
- Volleyball/Fitness (.5 credit)
- Walking/Fitness (.5 credit)
- Weight Training/Cond. (.5 credit)

Naval Science

(any 2 credits from the following)

- Naval Science (1 credit)
- Naval Science II (1 credit)
- Naval Science III (1 credit)
- Naval Science IV (1 credit)

Mathematics (any 2 credits)

- Pre-Calculus (1 credit)
- AP Calculus (1 credit)
- AP Statistics (1 credit)

