

## SCIENCE COURSES AVAILABLE FOR FRESHMEN

*The Science Department encourages students to explore all areas of science rather than concentrate two or three years in one discipline. Depending upon qualification and interest, students may enroll in an honors or AP course in one subject area and a college prep level in another. All science courses include related laboratory work. Students who participate in the diverse science curriculum at Lake Forest High School will develop the understandings and habits of mind they need to become scientifically literate and to participate in the decision making processes required by our society.*

### SCIENCE COURSES OFFERED TO:

Freshmen	Sophomores	Juniors and Seniors
Basic Science 1 Introduction to Biology Biology 1 Introduction to Environmental Geoscience Environmental Geoscience	Basic Science 1 Basic Science 2 Introduction to Biology Biology 1 Anatomy & Physiology/Body Mech. Anatomy & Physiology/Body Reg. Introduction to Environmental Geoscience Environmental Geoscience Chemistry 1 (*) Chemistry 1 H (*)	Basic Science 1 Basic Science 2 Introduction to Biology Biology 1 Anatomy & Physiology/Body Mech. Anatomy & Physiology/Body Reg. AP Biology Introduction to Environmental Geoscience Advanced Environmental Geoscience Advanced Environmental Geoscience H AP Environmental Science AP Env Science – A Field Experience Introduction to Chemistry Introduction to Physics Materials Science Design (seniors only) Physics 1 (*) Chemistry 1 (*) Chemistry 1 H (*) AP Chemistry (*) AP Physics (B) (*) AP Physics (C) Mechanics, Electricity and Magnetism(*)

\*CHECK MATHEMATICS REQUIREMENTS IN COURSE DESCRIPTION.

### **BASIC SCIENCE 1 — 1 Unit of credit in Lab Science**

**Freshmen, Sophomores, Juniors**

*Prerequisite: Current teacher or Instructional Director recommendation*

This course meets the science requirement for graduation. It will be highly flexible, responding to the individual needs of the students. Content will closely conform to the Learning Standards and State Goals. The cross-disciplinary applications of learning will be augmented by a variety of student centered techniques, including problem solving strategies, working in groups and as individuals on projects, using computers to access information, producing data bases and communicating results, opinions and observations. Students will be encouraged to develop design skills and relate science, technology, and society to their work. Learning organizational skills is a major emphasis in this course.

### **INTRODUCTION TO BIOLOGY — 1 Unit of credit in Lab Science**

**Freshmen, Sophomores, Juniors, Seniors**

*Prerequisite: Current teacher or Instructional Director recommendation*

Introduction to Biology is a survey course of biological topics. Topics for study include animal kingdom, ecology, elemental chemistry and biochemistry, cells, genetics, evolution, dissection, and plants. This course stresses the development of study and organizational skills. It focuses on general biological concepts using a textbook that is written below grade level. Introduction to Biology emphasizes the use of laboratory activities, demonstrations and class discussions.

**BIOLOGY 1 — 1 Unit of credit of Lab Science****Freshmen, Sophomores, Juniors, Seniors***Prerequisite: None*

This is an introductory survey course employing lectures, labs, and outdoor studies to emphasize the following topics: biochemistry, cells, genetics, evolution, plants, animals, and ecology. Students will develop the necessary skills to investigate current biological issues. Homework is given frequently and lab work is extensive, including dissections of some organisms.

**INTRODUCTION TO ENVIRONMENTAL GEOSCIENCE — 1 Unit of credit in Lab Science** **Freshmen, Sophomores, Juniors, Seniors***Prerequisite: Current teacher or Instructional Director recommendation*

Introduction to Environmental Geoscience is a survey course of environmental and geological science topics. Topics for study include current issues in science, the nature of science, human population, recycling and waste, energy in Earth systems, plate tectonics including earthquakes and volcanoes, oceanography, landscape evolution, climate and weather patterns, and human effects on the environment. This course stresses the development of study and organizational skills. Introduction to Environmental Geoscience emphasizes the use of lab activities, demonstrations, and class discussions.

**ENVIRONMENTAL GEOSCIENCE — 1 Unit of credit in Lab Science****Freshmen, Sophomores***Prerequisite: None*

Environmental Geoscience involves the study of earth systems and outer space with a focus on environmental and economic concerns. These include current issues such as a diminishing water supply, waste disposal problems, greenhouse effect, the utilization of the earth's energy, mineral and human resources and how these problems relate to population growth. It will give the student the ability to discuss environmental issues, issues concerning weather and how they are linked to the other sciences and to the health of our planet. It is a laboratory and activity-oriented course integrating many of the concepts across the science disciplines as well as concepts not emphasized elsewhere in the science curriculum (geologic time, vastness of space, etc.). This college preparatory lab science features many challenging laboratory activities and computer simulation exercises that reinforce each unit, as well as some of the latest environmental technology.