

SCIENCE COURSES

Physical Science (304021)

Credit: 1

This course will emphasize chemistry and physics. It is meant to be an introductory course to prepare students for further study in chemistry and physics. Review of Earth and Space science may also be included.

Biology I with Lab (302601)

Credit: 1

Using science processes, laboratory activities and research, students explore some of the major issues that confront biologists and citizens regarding advances in the biological sciences. Topics include ecology, cell structure, and physiology, genetics, evolution, microscopic and macroscopic life forms.

College Biology with Lab - Thomas More College On-Site Dual Credit. NSC267 Natural Science: Biological (4) (3026012) Credit: 1

Prerequisite: Qualifying Jr or Sr (see Page 44) who has completed HS Biology or Agrbiology.

An examination of the fundamental concepts of biology integrated with other disciplines and applied to human affairs. Laboratory study will emphasize the use of the scientific method in learning the characteristics of living organisms. General Biology-Cell biology; genetics; ecology; biological diversity. Not applicable to major or minor in biological sciences. A general education course (natural sciences).

Chemistry with Lab (304599)

Credit: 1

Prerequisite: Physical Science

This introductory chemistry course was designed for the college bound non science major who is trying to fulfill the chemistry requirement for the pre-college curriculum. It will not provide a foundation for advanced chemistry, and may not be substituted for the Honors Chemistry course. This course emphasizes the impact of chemistry on society as it explores community issues that are affected by chemicals.

Honors Chemistry with Lab (3045991)

Credit: 1

Prerequisite: Physical Science

This course is designed for college bound students who plan to major in mathematics or science, or who would like to study chemistry at a more theoretical level than is available in the Chemistry course. Through laboratory investigations, and classroom work that emphasizes problem solving, students explore the basic structure and behavior of matter. This course is recommended for students with a solid background in mathematics. You need to have completed Algebra I.

Physics with Lab (304899)
Prerequisite: Physical Science, Algebra II

Credit: 1

The introductory physics course is a survey of the rules of nature upon which all other sciences are built. Emphasis is placed on understanding the basic concepts of physics. Exploring the nature of such things as motion, forces, and energy is the central focus. Students should have a good foundation in mathematics. Algebra I,II, and geometry are recommended.

Forensic Science with Lab (302616)

Credit: 1

This elective course focuses on various aspects of forensic science and modern criminal investigation analysis. It will involve the application of topics covered in integrated science, biology, and chemistry in the context of forensics.

Special Topics in Science (303099)

Credit: 1

This is an upper level science course that will focus on preparing students for science skills needed in the workforce, vocational training, and college readiness. Reading passages, test taking strategies, labs, and content associated with Geology, Earth & Space, Biology, Chemistry, and Physics will be taught in the course.

Agriscience (020152)

Credit: 1

Agriscience introduces the scientific agricultural approach to animal science and selection, and plant and land science. Agricultural career opportunities will be emphasized in each class. Laboratory experiences relating to basic and current technology will be part of the program. Content may be enhanced by utilizing appropriate computer applications. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program and keep appropriate records.

Greenhouse (010641)

Credit: 1

Greenhouse Technology provides instruction in greenhouse structures and greenhouse environment regulations. Plant growth and development and propagation are included as well as production and maintenance of bedding and container produced plants. Fundamental principles of vegetable production and commercial production of vegetable crops may be included. Content may be enhanced with appropriate technology. Leadership development will be provided through FFA. Each student will be expected to have a supervised agricultural experience program.

Agri-biology with Lab (020116) Grades 9-12**Credit: 1****Prerequisite: Agriscience**

This course uses agricultural contexts to present the life science content outlined in the Program Studies. As students study practical agricultural concepts, they apply scientific ways of thinking and working to real-life problems. During their study of agri-biology, students perform many practical tasks. They create models, extract DNA, analyze DNA fingerprints, construct tables and graphs to classify and analyze data, and test soils. Students also participate in cooperative and collaborative groups, use technology to solve problems, and participate in field trips to apply scientific concepts to agricultural and environmental problems. Students develop an understanding of many concepts such as cell structure and function, morphology and physiology of agriculturally significant animals, heredity principles and inheritance patterns, genetic engineering, animal behavior, biological change, interdependence of plants and animals, and the flow of matter and energy through ecosystems. Leadership development will be provided through FFA. Each student will be expected to have an agricultural experience program.

****This class will fulfill the biology credit for students. Only 1 credit may be earned in either Biology or Agri-Biology.**

**Veterinary Technology/Animal Anatomy (020160) Credit: 1
Grades 10-12****Prerequisite: Agriscience and completion or current enrollment in Biology or Agribiology.**

This course introduces students to the field of veterinary science. Major topics include veterinary terminology, safety, sanitation, anatomy/physiology, clinical exams, hospital procedures, parasitology, posology, laboratory techniques, nutrition, disease, office management, and animal management.

***This class is recommended for students pursuing a veterinary or health care education.**

***Weighted upper level science, but will not receive weighted grade until the class of 2011.**

