
GENERAL SCIENCE (GSCI)

GSCI 501 Problem Solving in Science for the Middle School Teacher (3 credits)

This is the introductory course for the MAT in the General Science Program. This course uses a content-rich problem-based integrated science approach. The course will introduce the process and culture of teaching science. This course will weave the Curriculum Frameworks and MCAS expectations with instructional strategies. Students will be introduced to resources for teaching science at the middle school level.

GSCI 504 Topics in Life Sciences for the Middle School Teacher (3 credits)

Prerequisite: GSCI 501

This course is part of the MAT in General Science Program. It cannot be used as part of the MAT in Biology. This course presents selected areas of middle school level (grades 5-8) life science as determined by the requirements of the Massachusetts Curriculum Framework in Science and Technology / Engineering. Possible topics include classification of organisms, structure and function of cells, systems in living things, reproduction and heredity, evolution and biodiversity, living things and their environment, energy and living things and changes in ecosystems over time. Specific content will be developed to meet the assessed needs of teachers and the school districts. BIOF 508 modular courses may be combined to meet the three-credit requirement of this course with approval of the biology department adviser.

GSCI 505 Topics in Physical Sciences for the Middle School Teacher (3 credits)

Prerequisite: GSCI 501

This course is part of the MAT in General Science Program. This course presents selected areas of middle school level (grades 5-8) physical science as determined by the requirements of the Massachusetts Curriculum Framework in Science and Technology / Engineering. Possible topics include properties of matter, atoms, force and motion, and energy transformations.

GSCI 506 Topics in Earth/Space Sciences for the Middle School Teacher (3 credits)

Prerequisite: GSCI 501

This course is part of the MAT in General Science Program. This course presents selected areas of Middle School level (grades 5-8) Earth and Space Science as determined by the requirements of the Massachusetts Curriculum Framework in Science and Technology / Engineering. Examples of possible topics include Earth's structure, matter and energy in the earth system, plate tectonic theory, and the origin and evolution of the universe.

GSCI 507 Topics in Technology/Engineering for the Middle School Teacher (3 credits)

Prerequisite: GSCI 501

This course is part of the MAT in General Science Program. This course presents selected areas of Middle School level (grades 5-8) Technology/Engineering as determined by the requirements of the Massachusetts Curriculum Framework in Science and Technology/Engineering. Possible topics include the design process, impact of technology on nature, future technologies, tools and machines of technology, resources and technology in communication, transportation and power.

GSCI 508 Integrated Science for the Middle School Teacher (3 credits)

Prerequisite: GSCI 501, GSCI 504, GSCI 505, GSCI 506, GSCI 507

This is the capstone course for the MAT in General Science Program. This course uses a content-rich problem-based integrated science approach. The course will allow students to bring together their content mastery in science with the pedagogy developed in their education courses and improve ways to put them into practice.

Note: This section is arranged in course number order. See course prefix key for assistance in locating department sections.

Note: See Catalog Web Addenda at www.bridgew.edu/catalog/addenda/ as that information supersedes the published version of this catalog.