

NATURAL SCIENCE (NSCI)

Course Descriptions

NSCI 505 Research Design 3 Credit Hours

The course is designed to explore research approaches, methods, and design considerations and to address professional and ethical aspects of the research enterprise. The primary goal is to complete the course with a well-developed research prospectus in hand. (F, YR).

NSCI 531 Adv Learning Inquiry: Phys Sci 3 Credit Hours

This course is designed to provide in-service teachers with additional tools and knowledge to teach physical science concepts to elementary and middle school students. Topics selected from the science benchmarks in the Michigan Curriculum Framework (MCF) will be explored at significant depth. Students will be expected to integrate major themes of the physical sciences and understand how the topics covered in the course fulfill the National Science Education Standards (NSES) and the MCF. The learning cycle and inquiry methods of instruction will be modeled and students will be expected to use these in their assignments. (YR).

Prerequisite(s): NSCI 231

Restriction(s):

Can enroll if Class is Post-baccalaureate Cert only or Post-baccalaureate NCFD or Graduate

Can enroll if College is Education, Health, and Human Services

NSCI 532 Adv Inquiry: Earth/Planet Sci 3 Credit Hours

This course is designed to provide in-service teachers with additional tools and knowledge to teach the concepts of Earth and planetary science to elementary and middle school students. Topics selected from the science benchmarks in the Michigan Curriculum Framework (MCF) will be explored at significant depth. Students will be expected to integrate major themes and understand how the topics covered in the course fulfill the National Science Education Standards (NSES) and the MCF. The learning cycle and inquiry methods of instruction will be modeled and students will be expected to use these in their assignments. (YR).

Prerequisite(s): NSCI 232

Restriction(s):

Can enroll if Class is Post-baccalaureate Cert only or Post-baccalaureate NCFD or Graduate

Can enroll if Level is Rackham or Graduate

NSCI 533 Adv Inquiry: Life Science 3 Credit Hours

This course is designed to provide in-service teachers with additional tools and knowledge to teach biological science concepts to elementary and middle school students. Topics selected from the life science benchmarks in the Michigan Curriculum Framework (MCF) will be explored at significant depth. Students will be expected to integrate major biological themes and understand how the topics covered in the course fulfill the National Science Education Standards (NSES) and the MCF. The learning cycle and inquiry methods of instruction will be modeled and students will be expected to use these in their assignments. (YR).

Prerequisite(s): NSCI 233

Restriction(s):

Can enroll if Class is Post-baccalaureate Cert only or Post-baccalaureate NCFD or Graduate

Cannot enroll if Level is Graduate

Can enroll if College is Education, Health, and Human Services

NSCI 598 Independent Study in NSCI 1 to 3 Credit Hours

Provide an opportunity for students to pursue graduate level independent library-based research under the direction of a faculty member. For students who wish to study an area that is interdisciplinary rather than an area focused on a specific science. The student and the faculty member must complete a contract outlining the area to be studied and the product of the research. The project must be approved by the program director and the faculty member before students register for the course.

Restriction(s):

Can enroll if Class is Graduate

Can enroll if College is Arts, Sciences, and Letters

NSCI 599 Laboratory Research in NSCI 1 to 3 Credit Hours

Provide an opportunity for students to pursue graduate level independent laboratory-based research under the direction of a faculty member. For students who wish to study an area that is interdisciplinary rather than an area focused on a specific science. The student and the faculty member must complete a contract outlining the area to be studied and the product of the research. The project must be approved by the program director and the faculty member before students register for the course.

Restriction(s):

Can enroll if Class is Graduate

Can enroll if College is Arts, Sciences, and Letters

*An asterisk denotes that a course may be taken concurrently.

Frequency of Offering

The following abbreviations are used to denote the frequency of offering: (F) fall term; (W) winter term; (S) summer term; (F, W) fall and winter terms; (YR) once a year; (AY) alternating years; (OC) offered occasionally