SCIENCE EDUCATION (SCIED-UE)

SCIED-UE 211 Science in our Lives: Water and Sustainability (4 Credits)
Typically offered Spring
Students investigate the nature of water, human use of water, and the impact of humans on its availability and use. These investigations initiate an exploration of the nature of sustainability and through sustainability audits plans for human action. By exploring the practices of science from observing and measurement to analyzing and explaining data, students learn to use data and produce scientific knowledge for the public and begin to explore the bigger question of whether some of the practices in which we engage and the things we use are making our planet sick.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 212 Science in Our Lives: Environmental Issues (4 Credits)
Typically offered Fall and Spring
Introducing the notion of citizen science, this course provides students with opportunities to use scientific information to solve real-world problems related to environmental & public health. By exploring the practices of science from observing & measurement to analyzing & explaining data, students learn to use data & produce scientific knowledge for the public. Liberal Arts Core/MAP Equivalent - satisfies the requirement for Natural Sciences
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 213 Science in Our Lives: Human Health & Disease (4 Credits)
Typically offered Spring
This course provides students with opportunities to use scientific information to understand concepts related to human health & disease while exploring the question of what it means to engage in citizen science. Students explore causes, controls, & natural defenses against a variety of diseases including infectious diseases & cancers. By studying & conducting the practices of science students learn to use data & produce scientific knowledge for themselves & the public. Liberal Arts Core/MAP Equivalent - satisfies the requirement for Natural Sciences
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 215 Science in Our Lives: Biodiversity and the Earth (4 Credits)
Typically offered occasionally
In this course students explore the Earth as an integrated, dynamic system involving the material world and diversity of living things which we call biodiversity. Specifically, this course explores the flow of energy and materials through the Earth System and potential human impact on this system. Through the practices of science students learn to use data to produce scientific knowledge for themselves and the public while exploring the question of what it means to engage in citizen science.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 216 Science in Our Lives: The Unexceptional Brain & Other Explorations (4 Credits)
As you read this description, structures in your body are participating in an entangled dance with the material of the written text. Science is only just beginning to understand what a complex dance this is. In this course, you will explore neuroscience to develop a richer understanding of the role of your brain in practices we often take for granted. You will also explore how other living things, including plants, learn and think. And that's not science fiction! Meets Steinhardt Core for Life Science.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 217 Science in Our Lives: The small, the powerful…The Microbe! (4 Credits)
In this course students use scientific information to understand concepts related to the microbial world while exploring what it means to engage in citizen science. Students study the evolutionary origins, lives, and ecologies of various microorganisms including microbe-host interactions that can cause disease. By exploring the practices of science from observing and measurement to analyzing and explaining data, students learn to use data and produce scientific knowledge for themselves and the public. Meets Steinhardt Liberal Arts Core requirement.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 218 Science in Our Lives: Facts and Lies in the Name of Science (4 Credits)
Students explore how science became a global form of knowledge making about the natural world, how European notions of science contributed to its growth as a form of systematic knowledge, how some people were excluded from this process, and how bias and discrimination were made real. By observing, measuring, analyzing and explaining data, students learn to produce and evaluate the quality of scientific knowledge and to recognize how science understanding helps to interrogate the construction of difference between facts and lies. Fulfills Life Science Core requirement.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 1000 Independent Study (1-6 Credits)
Typically offered occasionally
It should be noted that independent study requires a minimum of 45 hours of work per point. Independent study cannot be applied to the established professional education sequence in teaching curricula. Each departmental program has established its own maximum credit allowance for independent study. This information may be obtained from a student?s department. Prior to registering for independent study, each student should obtain an Independent Study Approval Form from the adviser.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: Yes

SCIED-UE 1039 Meth I:Teach of Science in Middle Schools (3 Credits)
Typically offered Fall
This field-based course explores theoretical and practical frameworks for designing and implementing classroom management, integration of science with other disciplines, reading and science, traditional and alternative assessment, and multicultural science teaching. The use of technology as an instructional tool to support learning and communication are applied to teaching and learning situations as an integral aspect of the course.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 1040 Meth II:Teach of Science in High School (3 Credits)
Typically offered Spring
The relationship between learning outcomes and assessment is considered in relation to how it influences instructional decisions especially with respect to development of curriculum. The roles of instructional strategies, motivation, classroom management, curriculum and technology are addressed as a means of sustaining learner interest and cooperation.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 1050 Using Non Formal Resources to Teach Science and Sustainability (2 Credits)
Students learn to use the city as a classroom to learn about science and sustainability in the urban environment. Students explore place-based environmental education by visiting non-formal settings such as parks, botanic gardens, museums, field stations, and public and private organizations and consider their roles as teachers and learners to link activities with inquiry, reflection and practice. Students learn and understand how to develop linkages between formal and non-formal learning by designing educational activities for learners of all ages.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 1911 Student Teaching Science Education:Middle School (3 Credits)
Typically offered Fall
One semester supervised student teaching in a science education classroom in middle school a minimum of 180 hours within 20 days. Student teaching experiences will be used to support theoretical and practical applications of the planning and implementation of the curriculum. Participation is required in a weekly student teaching seminar which offers a practical examination of teaching problems and practices as they relate to actual classroom teaching.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No

SCIED-UE 1922 Student Teaching Science Education:High School (3 Credits)
Typically offered Spring
One semester supervised student teaching in a science education classroom in high school a minimum of 180 hours within 20 days. Student teaching experiences will be used to support theoretical and practical applications of the planning and implementation of the curriculum. Participation is required in a weekly student teaching seminar which offers a practical examination of teaching problems and practices as they relate to actual classroom teaching.
Grading: Ugrd Steinhardt Graded
Repeatable for additional credit: No