SCIENTIFIC WORLD (SW)

SW 217 | UNDERSTANDING AND MEASURING INTELLIGENCE | 2-4 quarter hours
(Undergraduate)
In this course, students examine intelligence testing and its uses in employee selection and placement. Students learn the principles of assessing human traits (reliability, validity, bias and other systematic errors), and apply them to intelligence testing. We will work to define "intelligence" and consider various approaches to intelligence, contrasting the theories of unitary vs. multiple intelligences. Students will examine the implications of the definitions and measurement approaches on different groups of people, both historically and currently, with attention to the unintended effects of the biases of test developers and the ethical implications of different approaches and uses of intelligence testing.

SW 244 | STATISTICAL REASONING: UNDERSTANDING AND USING STATISTICS | 2-4 quarter hours
(Undergraduate)
This course will teach students the basic concepts of statistics. Students will investigate topics including descriptive statistics, correlation, normal distributions, probability, sampling distributions and hypothesis testing. By the end of this course, students will able to complete a statistical analysis of datasets using Microsoft Excel as the primary tool. Considerable time will also be devoted to discussing how statistics are used and abused.

SW 320 | TECHNOLOGY, CRIME, AND CIVIC ENGAGEMENT | 4 quarter hours
(Undergraduate)
The focus of this course is the well-functioning civic community, and its reliance on the productive engagement of its members (group and individual). We examine crime in the age of the internet, and use models of civic engagement to posit novel solutions to these "hidden" and ubiquitous activities.

SW 332 | BIODIVERSITY | 2 quarter hours
(Undergraduate)
The science of Biodiversity is the study of life on earth, both past and present. It involves the exploration and measurement of the amount of genetic, species, and ecological variation on earth and is emerging as one humanity's most important and urgent endeavors. Scientific efforts to study earth's biodiversity have intensified because of our growing appreciation of the role human population growth and urbanization play in accelerating the extinction of plant and animal species. This course introduces students to the nature of science and the central issues concerning life on earth including: the current state of biodiversity, valuing life's variations, human dependence on biological diversity, the origin and extinction of species, mass extinction, critical habitats at risk, and policies and approaches to conserve biodiversity (2-4 hours).

SW 356 | DATABASE DESIGN AND IMPLEMENTATION FOR SMALL BUSINESS APPLICATIONS | 2-4 quarter hours
(Undergraduate)
This course will teach non-computer literate persons to be able to translate a business problem into a conceptual database design, and further to convert the design into a database application using Microsoft Access. By the end of the course, the student should be able to apply knowledge to the following: (1) describing basic database concepts and using common database terminologies; (2) designing databases using appropriate designing notations; (3) translating a schema into a database application in Access; (4) conducting simple user-interface design; and (5) designing small business-based applications.