

# BSOS - BEHAVIORAL AND SOCIAL SCIENCES

---

## BSOS138 Special Topics in Study Abroad I (1-6 Credits)

Special topics course taken as part of an approved study abroad program.

**Repeatable to:** 15 credits if content differs.

## BSOS188 Selected Topics in the Behavioral and Social Sciences (1-3 Credits)

Introductory selected topics course dealing with interdisciplinary issues related to the social sciences.

**Repeatable to:** 6 credits if content differs.

**Credit Only Granted for:** EDCP1080 or BSOS188A.

## BSOS201 Ensuring your Financial Future Through Stock Investing (3 Credits)

Introduces students to investing and trading, with special emphasis on the field of technical analysis. Planning for one's financial future is a critical skill for all students. Students will learn how to evaluate companies using the investors.com website and the TC2000 stock charting program. Students will develop an idea of the risks and benefits of investing, establishing a savings strategy, opening an IRA, and strategically planning for future financial security. In addition to readings, lectures, and online videos, students will participate in virtual stock market trading exercises and manage a virtual account.

**Credit Only Granted for:** BSOS289I or BSOS201.

**Formerly:** BSOS289I.

**Additional Information:** No prior knowledge of the stock market or investing is expected or required.

## BSOS230 Introduction to Programming for the Social Sciences: Statistical Computing using R (1 Credit)

R is an open-source programming language, specialized for statistical computing, and provides a variety of statistical and graphical techniques that might be relevant for any BSOS program, such as descriptive statistics, linear and non-linear regression, text mining, image processing. The R language is increasingly often employed in advanced statistics and data analytics, offering a wide range of application packages for effective programming. This course introduces the R language and several powerful packages in form of lectures, worked-out examples, and group exercises.

**Restriction:** Must not have completed BSOS330; and must be enrolled in a BSOS major. Or permission of instructor.

**Additional Information:** Students do not need any prior experience using R.

## BSOS231 Introduction to Programming for the Social Sciences: Python (1 Credit)

Python has become the most powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. In addition, python is deployed on virtually all high performance computing clusters, taking advantage of multi-processing, large memory, and GPU enhanced computing environments. This course offers a thorough introduction to python and those packages that are fundamental to data processing and analysis, image processing, natural language processing, machine learning.

**Restriction:** Must not have completed BSOS331; and must be enrolled in a BSOS major. Or permission of instructor.

**Additional Information:** Students do not need any prior experience using Python.

## BSOS233 Data Science for the Social Sciences (3 Credits)

An introduction to modern methods of data analysis for social scientists. This course emphasizes teaching students who have no previous coding experience how to analyze data and extract meaning in a social science context. Students will gain critical programming skills and learn inferential thinking through examples and projects with real-world relevance.

**Prerequisite:** MATH115.

**Restriction:** Must be in a major in the College of Behavioral and Social Sciences or the College of Information Studies; or permission of instructor.

## BSOS238 Special Topics in Study Abroad II (1-6 Credits)

Special topics course taken as part of an approved study abroad program.

**Repeatable to:** 15 credits if content differs.

## BSOS248 Leadership Seminar I (1-6 Credits)

A topics course in the behavioral and social sciences designed to develop student leaders with skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

**Repeatable to:** 9 credits.

## BSOS258 Leadership Practicum I (1-6 Credits)

This course puts into practice the elements and skills learned in the seminar series that directly benefit the college.

**Repeatable to:** 9 credits.

## BSOS288 Special Topics in Behavioral and Social Sciences (1-3 Credits)

Introductory special topics course focusing on an interdisciplinary topic related to behavioral and social sciences.

**Repeatable to:** 6 credits if content differs.

## BSOS308 Contemporary Issues: Interdisciplinary Approaches (3 Credits)

An interdisciplinary analysis of current public policy issues of international, national and community import. Senior standing recommended.

**Recommended:** Must have Senior standing.

**Repeatable to:** 6 credits if content differs.

**BSOS326 Python Programming for the Social Sciences (3 Credits)**

Python has become the most powerful programming language in advanced statistics and data analytics. It includes expansive packages for data handling and processing, including the latest developments in machine learning, and offers Integrated Development Environments (IDE) for code development, testing, debugging, and graphical representation. In addition, python is deployed on virtually all high performance computing clusters, taking advantage of multi-processing, large memory, and GPU enhanced computing environments. This course offers a thorough introduction to python and those packages that are fundamental to data processing and analysis, image processing, natural language processing, machine learning.

**Prerequisite:** Students must have completed a least one college-level statistics course.

**Restriction:** Restricted to students in the Social Data Science major or by permission of the instructor.

**BSOS338 Special Topics in Study Abroad III (1-6 Credits)**

Special topics course taken as part of an approved study abroad program.

**Repeatable to:** 15 credits if content differs.

**BSOS348 Leadership Seminar II (1-6 Credits)**

A topics course in the behavioral and social sciences designed to develop student leaders with advanced skills that will address important issues of the college and offers diverse viewpoints intended to challenge common perceptions of leadership, technology programs and communication.

**Repeatable to:** 9 credits.

**BSOS355 Social Sciences Internship Practicum (3 Credits)**

BSOS 355 is an internship course open to all majors. It will enable students to articulate and apply the scholarship from the discipline related to their specific internship placement into a real-work environment.

**Restriction:** Must have earned a minimum of 60 credits; and minimum cumulative GPA of 2.5; and must have completed at least 1 semester at UMD.

**Credit Only Granted for:** BSOS388I or BSOS355.

**Formerly:** BSOS388I.

**BSOS358 Leadership Practicum II (1-6 Credits)**

This course puts into practice the advanced skills and elements learned in the seminar series that directly benefit the college.

**Repeatable to:** 9 credits.

**BSOS385 Big-Data Analysis on the BSOS HPC Cluster (2 Credits)**

Social media are a primary source of information on social interaction and personal interests. High-performance computing (HPC) is employed to search for hidden pattern and unknown correlations using advanced machine-learning algorithms available in python and R packages. The main steps of Natural Language Processing and big-data analysis are being worked out, from examining random samples to analyzing large data sets via in-memory Monte-Carlo applications and neural networks.

**Prerequisite:** Students must have completed a least one college-level statistics course.

**Recommended:** A working knowledge of python or R is expected.

**Restriction:** Students must be enrolled in a BSOS major; or permission of instructor.

**Credit Only Granted for:** BSOS385, BSOS685, or BSOS688B.

**BSOS386 Experiential Learning (3-6 Credits)****BSOS388 Behavioral and Social Sciences Special Topics (1-3 Credits)**

Advanced special topics course focusing on an interdisciplinary topic related to the Behavioral and Social Sciences.

**Repeatable to:** 6 credits if content differs.

**BSOS399 Directed Study in Behavioral and Social Sciences (1-6 Credits)**

Guidance for the advanced student capable of interdisciplinary study on special projects under the supervision of the Assistant Dean for Student Affairs.

**BSOS438 Special Topics in Study Abroad IV (1-6 Credits)**

Special topics course taken as part of an approved study abroad program.

**Repeatable to:** 15 credits if content differs.

**BSOS448 Teaching Assistant Practicum (1-6 Credits)**

Supervised practicum for teaching assistants for BSOS/UNIV courses.

**Repeatable to:** 9 credits.