# **Core Curriculum**

#### \*UCBP 101 Biblical Foundations (4 credits)

This course serves as an introduction to the Christian Scriptures (Old and New Testaments), including their contents, their historical backgrounds, literary genres, and theological and ethical themes. The course reflects the biblical basis of Samford's Core Values and provides a foundation for understanding the place of the Jewish and Christian Scriptures in human culture. The course will stress the relevance of the Bible for contemporary Christian faith and practice. Offered: Every semester. (Formerly UCBP 101, Biblical Perspectives)

### UCCA 101 Communication Arts I (4 credits)

Introductory course in communication, emphasizing guided practice in speaking, listening, reading, and writing. Students gain proficiency in the use of library resources and in foundational computing skills. Students must write a minimum of four essays, totaling 20 typed pages (4500 words) of polished prose that are revised through multiple drafts and carefully edited before submission. They also must make at least three oral presentations during the course. Students must pass this course with a grade of C- or better to advance to UCCA 102.

### \*UCCA 102 Communication Arts II (4 credits)

Continuation of UCCA 101 with additional guided practice in speaking, listening, reading, and writing. Special emphasis placed on research-based writing and argumentation. Students must write a minimum of four essays, totaling 20 typed pages (4500 words) of polished prose that are revised through multiple drafts and carefully edited before submission. They also must make at least three oral presentations during the course. Prereq: Grade of C- or better in UCCA 101. Students must pass this course with a grade of C- or better.

# UCCP 101 Cultural Perspectives I (4 credits)

First in a two-semester sequence that examines the Western intellectual tradition within a global context. Through interdisciplinary study, students increase their awareness of the cultural, historical, literary, philosophical, and religious influences upon the development of civilizations. Includes a minimum of 15 typed pages (3375 words) of polished prose.

### **UCCP 102 Cultural Perspectives II (4 credits)**

Second in a two-semester sequence that examines the Western intellectual tradition within a global context. Through interdisciplinary study, students increase their awareness of the cultural, historical, literary, philosophical, and religious influences upon the development of civilizations. Includes a minimum of 15 typed pages (3375 words) of polished prose.

# UCFH 120 Concepts of Fitness and Health (2 credits)

Fitness and health are homeostatic states that must be maintained throughout the course of one's life. This introductory course provides a foundation of the dimensions of wellness and their relationship to overall health for activities of daily living. Principles of fitness, basic nutrition, body composition, cardiovascular disease, substance abuse, stress, and other topics necessary for optimum health will be discussed. Offered: Every semester.

# **Natural Sciences**

# \*BIOL 105 Principles of Biology (4 credits)

Study of the principles of life common to all living organisms. Topics include biological chemistry, cellular biology, inheritance, survey of animals and plants, and ecology. Designed for non-biology majors. Includes laboratory.

## \*BIOL 107 Contemporary Biology (4 credits)

Survey of contemporary biology, with emphasis on the interactions of humans with the biological world. Designed for non-biology majors. Includes laboratory.

### \*BIOL 110 Human Biology (4 credits)

Study of the biological principles of the human body from a human biology anatomical, physiological, and ecosociological perspective. Includes laboratory.

Study of animal life from a cellular to organismal level with emphasis on animal taxonomy and environmental relationships. Designed for non-biology majors. Includes laboratory.

## **BIOL 111 Animal Biology (4 credits)**

Study of animal life from a cellular to organismal level with emphasis on animal taxonomy and environmental relationships. Designed for non-biology majors. Includes laboratory.

### **BIOL 112 Plant Biology (4 credits)**

Study of the form, function, and classification of the plant kingdom. Includes laboratory.

# CHEM 108 - General, Organic, and Biological Chemistry (3 credits)

Study of the chemistry needed to understand human physiology. When taken with CHEM 109, this course meets the chemistry requirement for nursing students and a general education requirement for natural and computational sciences for most other majors. Students who have a C- or better in CHEM 205 may not take CHEM 108 for credit. LEC 3. Offered: Fall, Jan Term (online), Spring, and Summer (online). Co-req: CHEM 109.

CHEM 109 - General, Organic, and Biological Chemistry Lab (1 credit) Laboratory to accompany CHEM 108. LAB 3. Offered: Fall, Jan Term, Spring, and Summer. Co-req: CHEM 108

# CHEM 205 - Foundations of Chemistry (4 credits)

Survey of chemical principles. Includes types of chemical reactions, stoichiometry, gases, thermodynamics, atomic and molecular structure, solutions, kinetics, and basic equilibrium. When taken with CHEM 206, meets a general education requirement for natural and computational sciences. LEC 4. Offered: Fall, Jan Term (online), Spring, and Summer (online). Co-req: CHEM 206 and MATH 150, or score on placement exam sufficient to qualify for MATH 240.

CHEM 206 - Foundations of Chemistry Laboratory (1 credit) Laboratory to accompany CHEM 205. LAB 3. Offered: Fall and Spring. Co-req: CHEM 205.

# COSC 107 Introduction to Computer Science (4 credits)

Exploration of the foundations of computing as a science, including how computing represents the effective merger of science, mathematics, and engineering. Incorporates handson experience to illustrate how computers operate based on simple principles of logic and abstraction; demonstrates how

# Natural Sciences, continued

to communicate with them via algorithms and use of a simple programming language; evaluates limitations; examines alternative computing paradigms; considers emerging technologies; contemplates major innovations such as the Internet, virtual reality, and intelligent systems; and surveys a variety of issues facing society. Not a computer literacy course. Computer science majors cannot use this course to fulfill their general education natural and computational science requirement. Prereqs: Basic computer literacy (familiarity with file/folder manipulation, word processing, and spreadsheet applications); mathematics background suitable for placement into Precalculus.

# GEOG 150 Physical Geography: Understanding Planet Earth (4 credits)

Hurricanes, tsunamis, earthquakes, volcanoes, global climate change. Learn the science behind the headlines. Understand processes and patterns in the natural environment. This course investigates a diverse set of environmental concerns on our dynamic planet including landform processes, oceans and coasts, water resources, Earth's atmosphere, and climate dynamics. Offered: Fall, Spring, and Summer.

### \*IDSC 201 Scientific Methods (4 credits)

Scientific approach to understanding the physical universe through an investigation of representative topics in physics, chemistry, and biology, paying particular attention to the sources of scientific information both for scientists and society. Interdisciplinary course taught by faculty in biology, chemistry, and physics. Satisfies the general education natural and computational sciences requirement for most majors. Prereq: Grade of C- or better in <u>UCCA 102</u>. LEC 4.

### PHYS 100 Physics for Society (4 credits)

Conceptual survey of all fields of physics, including modern developments, with an emphasis on the explanation of everyday physical phenomena. While the course is primarily conceptual in nature, an understanding of high school algebra is necessary for understanding the quantitative concepts in the course. Not applicable to a major or minor in physics; closed to those who have had <a href="PHYS 101">PHYS 203</a>. Includes laboratory.

# PHYS 101 - General Physics I (4 credits)

Study of Newtonian mechanics, heat, light, sound, electricity, magnetism, and relativity. Includes laboratory. Prereq for PHYS 101: Thorough understanding of algebra at the high school level. Offered: Fall and Summer I (101).

### PHYS 102 - General Physics II (4 credits)

Study of Newtonian mechanics, heat, light, sound, electricity, magnetism, and relativity. Includes laboratory. Prereq for PHYS 102: PHYS 101; elementary knowledge of trigonometry desirable though not required. Offered: Spring and Summer 2 (102)

# PHYS 150 Introduction to Astronomy (4 credits)

Survey of the solar system, stars, and galaxies. Includes laboratory. Offered: Fall, Spring, and some Summers.

### PHYS 203 - Physics I (5)

Study of Newtonian mechanics, heat, light, sound, electricity, magnetism, and relativity using calculus. Includes laboratory. Offered: Fall. Co-req: MATH 240.

### PHYS 204 - Physics II (5)

Study of Newtonian mechanics, heat, light, sound, electricity, magnetism, and relativity using calculus. Includes laboratory. Prereq: PHYS 203. Offered: Spring. Co-req: MATH 260

### PHYS 206 - Sound and Music (4 credits)

Study of physical principles of production, transmission, and reception of sound. Course cannot count towards a physics major or minor. Includes laboratory. Prereq: High school algebra. Offered: See department chair.

### Social Sciences

### **COMS 221 Interpersonal Communication (4 credits)**

Examination of interpersonal communication in human relationships and development of skills through projects, experiments, readings, and participation. A valuable course in terms of learning to understand and be understood by others. Offered: Every Semester.

# \*ECON 201 Principles of Macroeconomics (4 credits)

Study of macroeconomics, providing a theoretical framework from which aggregate economic events such as inflation, unemployment, and economic growth are explained. The framework ins used for analysis of current and potential problems of society. This course provides an organizing structure for understanding how the world economy works, providing the student with some ability to predict future economic events. Offered: Fall, Spring, and Summer 1.

# GEOG 101 Global Geography: Places, Landscapes, and Regions (4 credits)

Expand and enhance knowledge of your world. This course uses a spatial approach to understand history, culture, and environmental concerns across the globe. Regional case studies and current events reinforce geographic concepts.

# INTL 360 British Heritage and Culture (4 credits)

Interdisciplinary study of the British Isles from a variety of perspectives, including history, literature, politics and government, art, and architecture, education , religion, race, class, and gender. Lectures by British professors are supplemented by visits to museums, political institutions, and other historic sites in London. This course may be taken as part of the Semester Abroad Program only. Satisfies the general education social science or humanities requirement. Offered: Fall and Spring.

# JMC 200 Mass Media and Society (4 credits)

Introduction to mass communication with an emphasis on exposure to mass media messages, the industry, message effects, historical perspective, communication theories, and media literacy. Offered: Every Semester.

### POLS 200 Power and Politics (4 credits)

Introduction to the field of political science. Focus on political communities and the way in which groups organize to form governments. This is done in reference to the concept of democracy and the way in which political communities either attain or fall short of the democratic ideal. Required of political science majors. Offered: Fall and Spring.

# Social Sciences, continued

### PSYC 101 General Psychology (4 credits)

Comprehensive overview of the scientific study of behavior and mental processes. Topics include neuroscience, sensation and perception, learning, cognition, development, personality, behavior disorders, psychotherapy, and social psychology. This course is a prerequisite for all other courses in psychology. Psychology majors may not use this course to meet the general education social science requirement.

Offered: Fall and Spring.

### \*SOCI 100 Introduction to Sociology

Introduction to the way sociologists view society. Questions explored include: Why is society organized the way it is? How and why do different societies establish different patterns of organization? How does society influence individuals? How and why does society change or remain the same over time? What factors in society influence occurrences such as social conflict, violence, crime, sexual deviance, social inequity, gender relations, religious practices, etc.?

### **Mathematics**

### \*MATH 110 Contemporary Mathematics (4 credits)

Development of problem-solving skills obtained by studying a wide range of contemporary applications of mathematics. Connections between contemporary mathematics and modern society are stressed. Prereq: Suitable score on placement exam. Offered: Fall, Jan Term, Spring, and Summer 1.

# MATH 150 Precalculus (4 credits)

Introduction to a combination of standard topics from college algebra and trigonometry. Includes examples of modern mathematical modeling, ideas, and applications, plus the skills and knowledge needed for subsequent mathematics courses and/or real world applications. Covers linear, quadratic, exponential, power, logarithmic, polynomial, inverse, and trigonometric functions. Graphing calculator required; consult department for recommended model. Prereq: Suitable score on placement exam. Offered: Fall, Jan Term, Spring, and Summer 1. Samford University 2019-2020 Academic Catalog - Undergraduate 7/2/2019 305 of 401

## \*MATH 210 Elementary Statistics (4 credits)

Introduction to algebra-based statistics. Includes review of descriptive and inferential statistics with probability decision-making skills necessary for today's complex civilization. Covers frequency, probability, binomial, normal, chi-square and sampling distributions, estimation, hypothesis testing for one and two populations, linear correlation and regression, and analysis of variance. Some class assignments completed using a statistical computing software package. Graphing calculator required; consult department for recommended model. Prereqs: Suitable score on placement exam. Offered: Fall, Spring, Summer 1, possibly Summer 2 or Jan Term.

### Math 240 Calculus I (4 credits)

Introductory study of calculus, beginning with a review of precalculus functions with an emphasis on graphical, numerical, and modeling applications. Topics include: limits, continuity, derivatives and their interpretations, tangent line approximations, the definite integral as a limit of Riemann sums, applications of the definite integral to area and average value, the Fundamental Theorem of Calculus, rules of derivatives, formulas for derivatives of precalculus functions, implicit functions, economics applications, optimization and modeling, and Newton's method. Some class assignments/projects completed using the computer algebra system, Mathematica. Graphing calculator required; consult department for recommended model. Prereqs: MATH 150 or suitable score on placement exam. Offered: Fall, Jan Term, Spring, and possibly Summer. Note for University Fellows: Satisfies the mathematics requirement for the Fellows Core Curriculum. However,

# **Humanities**

### CLAS 200 The Rediscovery of the Classical World (4 credits)

some majors may require additional math courses.

Exploration of the world of the Ancient Greeks and Romans. This course examines multiple aspects of Classical Antiquity through the eyes of those who rediscovered it in literary ENGL 205 Fiction and Film (4 credits)

Study of the formal analysis of literary texts and films. Course includes close readings of literature and film in contexts (i.e., cultural, historical, biographical, economic, political) that inform and are shaped by them.

# HIST 200 Global Perspectives (4 credits)

Examination of the development of Western Civilization in its global setting since 1500, through its political, social, economic, and scientific evolution. Required of history majors.

# HIST 217 - Early America (4 credits)

Social, cultural, and political overview of American history from its colonial beginnings through the end of Reconstruction. Required of history majors. Successful completion fulfills the general education humanities requirement. Offered: Fall and Spring.

# IDHU 201 - Interdisciplinary Humanities (4 credits)

An interdisciplinary course that allows students to explore a topic in the humanities from multiple perspectives. Course can be offered with a variety of different special topics. Satisfies the general education humanities requirement for most majors. Offered: Spring, on rotation.

# Humanities, continued

### INTL 360 British Heritage and Culture (4 credits)

Interdisciplinary study of the British Isles from a variety of perspectives, including history, literature, politics and government, art and architecture, education, religion, race, class, and gender. Lectures by British professors are supplemented by visits to museums, political institutions, and other historic sites in London. This course may be taken as part of the Semester Abroad Program only. Satisfies the general education social science or humanities requirement for most majors. Offered: Fall and Spring.

## PHIL 230 - Medical Ethics (4 credits)

Introduction to the ethical issues in health care, medical research, and public policy, with ethical analyses of such issues as euthanasia, physician –assisted suicide, embryonic stem cell therapies, medical research on patients, abortion, in vitro fertilization, cloning, and the natural and civil rights to health care. Satisfies the general education humanities requirement for most majors. Offered: Spring. (Formerly PHIL 330).

### PHIL 241 Introduction to Philosophy (4 credits)

Examination of perennial questions and problems of life that have inspired philosophical investigation over the past 2,500 years. Offered: Fall and Spring.

### RELG/PHIL 200 Christian Ethics (4 credits)

Examination of contemporary social-ethical issues in light of Christian ethical principles, derived from scripture, and church history. Cross-listed with RELG200. Offered: Fall and Spring.

# \*RELG 201 Introduction to World Religions (4 credits)

Investigation of the major world religions, emphasizing their distinctive histories, beliefs, and practices. Offered: Fall and Spring.

# **RELG 221 Christian Theology (4 credits)**

Survey of the historical development and contemporary interpretation of the main teachings of Christian faith. Offered: Fall and Spring.

## **Fine Arts**

### SOA 200 Arts in Society (3 credits)

The course provides the students with a working knowledge of the meaning and importance of the arts as a product of the creative imagination in a dynamic interaction with a society. Its purpose is to develop deeper understanding of human expression in the context of global and national development. Satisfies the general education fine arts requirement for non-School of the Arts majors. Prereqs/Co-reqs: UCCA 102; UCCP 101 and UCCP 102. Offered: Every semester.

### SOA 250 - Arts Perspective (3 credits)

This course will explore the language and application of "arts" across the disciplines of music, theatre, and visual arts in order to develop a deeper understanding of the creative imagination in a dynamic interaction with society. Satisfies the general education fine arts requirement for School of the Arts majors. Prereqs/Co-reqs: UCCA 102; UCCP 101 and UCCP 102. Offered: Every semester.

\*Online Courses offered Jan Term and/or Summer