

## 2019 FALL TERM COURSE DESCRIPTIONS NOT FOUND IN THE 2018-19 ONLINE CATALOG

### **ARB 110 Elementary Arabic-I (four credit hours)**

Students will be introduced to the fundamentals of Arabic language beginning with the script and alphabet and extending through simple sentence formation and basic Arabic grammar. Listening, speaking, reading, and writing skills will be developed through class drills, homework, and small group conversations. By the end of the semester, students will be able to read and write in Arabic script, employ greetings, count, ask simple questions, and describe themselves and others.

### **ARH 389 Afro-Atlantic Visual Arts**

This course is designed to engage students in the contemporary visual arts of regions variously termed the “Afro-Atlantic,” “Black Atlantic”, and “circum-Atlantic” – and the ways in which artists engage with socio-cultural and political histories of slavery, colonialism, and identity within imbalanced cultural dynamics. The class will emphasize a broad understanding of Afro-Atlantic visual arts over the past century through art-historical and socio-cultural approaches. Areas of focus will be the cultural underpinnings of art production, and the movements and circulations of objects and ideas between various cultures and regions including the art market and museum display practices. Students will be introduced to course content through case studies from Africa and the Atlantic diaspora that include both “traditional” and “contemporary” examples, as well as an interrogation of those terms. The course is designed to deepen students' understanding of the dynamic history of material and visual cultures of the Afro-Atlantic world with a focus on how objects, people, and ideas circulate.

### **ARS 253 Introduction to Smartphone Photography**

This course provides an introduction to the art, history, and theory of photographic practices as well as digital photographic production processes through the use of smartphone cameras. Students will explore the expressive power of light and a spectrum of aesthetic and conceptual possibilities. Technical demonstrations will be combined with presentations of the work of photographic artists, short fieldtrips, and group critiques of photographic assignments. Technical skills will include capture from smartphone cameras, use of software for managing, editing, and processing files, and output for the screen and for digital printing systems.

### **CHE 370 Biological Chemistry**

An introduction to the study of the chemistry of biological systems. Topics studied include macromolecules, enzymes, enzyme kinetics, thermodynamics, metabolism, and nucleic acid replication.

### **CHE 456 Drug Delivery and Diagnostics Advances**

We will explore advances in nanotechnology, its convergence with biological systems, and the role it plays in medicine, pharmaceuticals, and disease monitoring. The focus of this course will include the development and optimization of nanoparticles designed for biosensing, drug delivery, diagnostics, and a combination of these purposes. Special consideration will be given to the interaction of these nanoparticles with biological systems in vivo and how this affects their design and performance. Prerequisite: BMB 310 or permission of the instructor

### **CRW 220 Writing for Newspapers and Magazines**

The purpose of this course is to introduce students to the art of writing essays for newspapers and magazines. Through a study of the different types of features (reviews, profiles, op-ed, general assignment, long-form essays, etc.), students will learn methods for gathering information (investigation, research, interviews), ethical practices for reporting and sourcing stories, and, of course, writing features that integrate information with clear writing and storytelling techniques. At semester's end, students will have a portfolio consisting of several revised articles (at least one long-form feature) and two polished, specifically targeted pitches.

### **CSC 160 Web, Data, and Design (four credit hours)**

This course will address how data is stored within the Internet, how information is shared across the Internet, and how to access information through the power of computation. These ideas will be used to design and implement interactive tools to visually communicate information. Topics include Internet protocols, HTML, CSS, Javascript, CSV, JSON, SQL, scraping, regular expressions, and data visualization. Prerequisite: MAT 110 or basic skills in math.

### **CSC 220 Programming and Problem Solving (four credit hours) (formerly CSC 117)**

An introduction to computer programming with an emphasis on learning how to write programs to solve problems. Problems will be taken from a wide range of disciplines. Prerequisite: Basic skills in mathematics or permission of the instructor.

### **CSC 270 Data Structures (four credit hours) (formerly CSC 223)**

Continued instruction in the use of object oriented techniques. Study of the standard data structures including lists, stacks, queues, trees, and hash tables. Introduction to space and time complexity. Laboratory work is required. Prerequisite: CSC 220 with a grade of C- or higher or permission of the instructor. CSC 160 is recommended.

### **CSC 362 Database Programming and Design (formerly CSC 410)**

A study of the concepts required to design and implement database applications. The course places an emphasis on designing a database in response to organizational needs, and to implementing a database application using a Relational Database Management System, the Structured Query Language, and other programming languages and software systems. Prerequisite: CSC 160 and CSC 270 or permission of the instructor.

### **CSC 370 Design & Analysis of Algorithm (formerly CSC 332)**

An introduction to the theoretical and empirical evaluation of algorithms and to some fundamental concepts in algorithm design and implementation. Topics include best, worst, and average-case performance, complexity classes, problem-solving strategies, and NP-complete problems. Prerequisites: CSC 270 with a grade of C- or higher and MAT 200 or MAT 300 with a grade of C- or higher, or permission of the instructor.

### **DSC 205 Statistical Modeling (revision of MAT 205)**

An introduction to multivariate statistical analysis, emphasizing fundamental statistical concepts as well as applications and interpretations. This course explores three central themes: probability with a focus on conditional probability, inferential statistics, and statistical modeling using multiple regression. A strong emphasis will be placed on statistical computing in R as well as developing the ability to professionally communicate findings to audiences of varying levels of statistical understanding. Prerequisite: MAT 130 or MAT 171 or MAT 185.

### **ENG 384 Poetry and Politics**

This course focuses on political resistance as it is described, and exemplified, within the work of select authors. We will explore responses to fascism as well as to the effects of war, colonialism, and the struggle for civil rights in the work of key poets of the early to mid 20th century in Italy, Russia, Germany, Nigeria, Barbados, and the United States. How did particular poets write within, and against, Stalin's Russia and Mussolini's Italy? How did a German-Jewish exile poet write to disarm and re-create his mother tongue? Why did the Black Revolutionary Poets see themselves as "warriors," though they only worked in words? How did these poets' political affiliations affect their imagery, poetic characters, use of language, and style? How is poetic form itself viewed as political? This class is open to students who have not studied modern or contemporary poetry.

### **ENS 215 Introduction to Environmental Science**

Consider the air quality impacts of cooking fires, the life cycle of electricity generation, or the challenges of water quality in Flint, Michigan. The purpose of this course is to promote the understanding of the value of and limitations of the natural sciences in solving environmental problems. Students examine how science is used to manage natural resources to promote a sustainable society. More specifically, students use the natural sciences to investigate multiple domains of environmental science including air quality; water quality and hydrology; food/soils; climate; and energy. This course aims to increase familiarity with scientific concepts underlying these environmental issues while enhancing students' abilities to think creatively, analytically, and with minimal bias. Students learn to understand how natural science issues penetrate our lives, helping students gain confidence to discuss these issues and make decisions based on their understanding of environmental science.

### **FLM 311 Introduction to American Horror Cinema**

The course is designed to introduce students not only to the different movies (mostly American) mapping the genre, but also to the different critical lenses framing the contemporary understanding of the genre.

### **FRE 413 Tahitian Art and Literature**

Our course charts the artistic and intellectual development of Tahitian works beginning with the first points of colonial contact and culminating in contemporary works that both assimilate and contest Western narratives. The primary academic focus is upon Tahitian Francophone literature, art, and theatre, in post-colonial contexts of identity and gender, specifically in terms of the way amorous discourse both inscribes and resists traditional Western representations of love, identity, and gender. Through understanding Tahiti's history and contemporary responses to ways of loving, identity, and gender representations, students' appreciation of the post-colonial Francophone landscape is enhanced and refined outside of the canonical academic boundaries. Prerequisite: FRE 261 or equivalent.

### **HIS 394 Public History: Who Owns the Past**

This course explores the diverse world of public history. It examines different methods of presenting history to public audiences ranging from museums and statues to podcasts and documentary films. Through readings, discussion, and visits to local historical sites, the class will analyze how public history advances specific historical interpretations, obscures competing views, and influences contemporary society. Over the course of the semester, students will also apply the skills of a public historian in collaboration with local community partners to create innovative public history products.

**MAT 165 Modern Calculus-I**

An intuitive introduction to mathematical modeling and differential and integral calculus with an emphasis placed on scientific computing. Topics include: functions as models of data, differential calculus of functions of one and several variables, optimization, integration, dimensional analysis, estimation techniques, and linear approximations. Applications are selected from various areas such as biology, chemistry, economics, and physics. Prerequisite: Basic skills in mathematics or placement.

**MAT 406 Introduction to Coding Theory**

Mathematical structures of vector spaces, groups, and finite fields are used to develop efficient and reliable methods of transmitting and storing information. Several specific types of linear block codes, including Hamming, Golay, BCH, and cyclic codes, are studied. Prerequisite: MAT 240.

**PHI 355 Philosophy of Pragmatism**

Pragmatism is the quintessentially American philosophy, espousing a nonfoundationalist account of reality and a theory of knowledge attuned to the concrete situations of life. As its title indicates, pragmatism seeks practical solutions to philosophical problems. Central thinkers who will be addressed include Charles Sanders Peirce, William James, W.E.B. DuBois, John Dewey, Richard Rorty, and Cornell West.

**POL 303 Conservative Thought in America**

Explores the major themes in conservative thought as well as the history of conservatism in America. Students will examine the different kinds of conservatism in America, how those differences led to a variety of conservative groups, and how these groups agree and disagree. Major topics studied include landmark conservative ideas, discussions of liberty, fusionism, the New Right, neoconservatism, the Christian Right, libertarianism, and populism.

**SOC 308 Gender and Sexualities**

This course will focus on sociological approaches to studying gender and sexuality within the United States. More specifically, we will use an intersectional and social constructionist framework to explore theories about gender and sexuality as they relate to multiple areas of life including: the family, education, sexual health, religion, politics, identity formation, and popular culture. Throughout the course we will also engage with current events to better understand the moral and political tensions that exist within contemporary debates about gender and sexuality. The format for this class will consist of lectures, films, readings, and small group discussion.