SPRING 2023 NEW COURSES & DESCRIPTIONS

EE-379W-01
Artificial Intelligence Concepts and Applications
Artificial Intelligence (AI) is integrated into many domains for assisting human decision-making processes. Examples include driving, drone targeting, medical diagnoses, fraud detection, depression detection, etc. By the end of the course, students will be familiar with common algorithms concepts and applications in various fields. Students will study some of the ethical and legal issues pertaining to AI applications. Student will learn when AI is appropriate in solution design. AI is for mor than Engineers; it is imperative for non-engineering majors to learn about AI concepts and applications as well as ethical topics related to AI to visualize al AI-integrated future.
Prerequisite(s) None

FR-252WX-01
Revolution and Modernism
This course places cadets in moments of historical controversy and intellectual ferment. The class becomes a public body of sorts; cadets, in role, become particular figures from the period as members of faction. Their purpose is to advance a policy agenda and achieve their victory objectives. To do so, they will conduct research, write speeches and position papers, deliver formal speeches in class, participate in informal debates and negotiations, and otherwise work to win a role-play game. Outcomes sometimes differ from actual history; a postmortem session at the end of each game sets the record straight.
Prerequisite(s) None

HI 274 (M)
Slavery & Abolition in the United States
This methodologically intensive course examines the intertwined histories of slavery and abolition in colonial America and the United States. Topics include: the origins and development of slavery in North America alongside early anti-slavery activism in the English Atlantic; the impact of the American Revolution on slavery in the United States; the rise of the cotton South and a national abolitionist movement in the decades before the Civil War. As a final project, cadets will choose (in consultation with the instructor) a topic within the course theme on which to dig deeper, in the form of an annotated bibliography and historiographical essay.

HI 275 (M)
Frederick Douglass' America
This seminar investigates nineteenth-century United States history through the eyes of Frederick Douglass. Cadets will analyze primary source texts written by Douglass and other nineteenth century Americans in his orbit, as well as historians' diverse interpretations of Douglass and the world he inhabited. We will investigate the central themes and trends of Fredrick Douglass's America, including, among others: antebellum slavery, abolitionism, the women's rights movement, the coming of the Civil War, black experiences during the war, Reconstruction, the racial and class tensions of the Gilded Age, the rise of Jim Crow, imperialism and transnationalism, and the ways in which Americans remember Douglass and use his legacy today. Cadets will develop primary source research skills, learn how to evaluate secondary sources, and practice crafting evidence-based historical arguments.

HI 276
Environmental History of Latin America
This course will adopt a comparative perspective of environmental history in Latin America, beginning in the fifteenth century and ending with contemporary environmental challenges. Key topics include the evolution of agricultural and pastoral lifeways; famine and epidemics; the ecology of colonialism and industrial civilization; decolonization and environmental justice; the Great Acceleration, the Anthropocene, and climate change; and the dynamic relationship between nature and culture.

HI-277-01
Chinese Martial Arts: History
This course offers a thematic introduction to the history of martial arts in China. We will explore the contexts of Chinese martial arts in a global scope. The course will range from the Bronze Age to the twenty-first century, from mainland China to colonial Hong Kong and Taiwan, as well as the U.S., from ancient Daoist and Buddhist contexts to Hollywood culture, from Mulan and Shaolin monks to the UFC. This course will use an interdisciplinary approach to examine martial arts practices in history.

HNS 378W
Artificial Intelligence Concepts and Applications
LTC Jaafar Alghazo, Associate Professor of Electrical and Computer Engineering
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HNL 381W
Revolution and Modernism
LTC Jeff Kendrick, Associate Professor of French
This course places cadets in moments of historical controversy and intellectual ferment. The class becomes a public body of sorts; cadets, in role, become particular figures from the period as members of a faction. Their purpose is to advance a policy agenda and achieve their victory objectives. To do so, they will conduct research, write speeches and position papers, deliver formal speeches in class, participate in informal debates and negotiations, and otherwise work to win a role-play game. Outcomes sometimes differ from actual history; a postmortem session at the end of each game sets the record straight.

MA-372-01
Introduction to Python
This short course introduces you to the basics of the python programming language. The course will cover topics such as python data types (e.g. numeric, arrays, strings), flow control structures (e.g. if-statements, loops), and error handling. You will design and document scripts and functional programs throughout the course. This 5-week course is fast-paced and is not intended for first-time programmers.
Pre-requisites: MA 310, or instructor approval. Dates: March 31-May 3. 1 hour course.

MA-373-01
Practical ORSA Skills
This course is designed to expand the theory and computational techniques related to understanding mathematical models, as well as how these skills apply in a ORSA position. Rather than focus on models that are primarily predictive these models will be used to help us understand the underlying science of the system being studied. It will use techniques from machine learning, model validation, sensitivity analysis and others, in order that analysts can better communicate their work to stake holders. Additionally, the course will cover how to present results to superiors and how to tackle large, real-world problems by breaking them up into manageable tasks. Industry-standard ORSA-specific software will be utilized, as well as Matlab. Prerequisites: C or better in MA 110, ME 203, or PY 223 and C or better in MA 124

MA-376-01
Cryptography
Classical algorithms: substitution ciphers, transposition ciphers, and stenography; Modern algorithms: block ciphers and public-key cryptosystems. This course is an introduction to cryptography and the underlying mathematical structures. The course will start by covering classical cryptography algorithms and progress to modern algorithms. Binary numbers, logical operators, and number theory will also be covered. Students are expected to have basic programming skills in a high-level programming language.
Prerequisites: MA 110, ME 203, PY 223, or CIS 111. Dates: January 17-February 17. 1 hour course.