

CRN#**Fall 2020 Learning Communities****20260 LC 206-A Depression, War, and BOOM!, 4 cr., Prof. N. Hammerle, Prof. S. Morris, MW2:30-4:30**

In this learning community, students will explore the socio-economic experiences of the American family in the mid-twentieth century. Using a combination of economics, history and popular culture, students will role-play as families from varying social, economic, and racial or ethnic perspectives. Throughout the semester, the students will present the changing landscape of the American family, in its varied demographics, as it was affected by economic changes, technological innovation, and evolving social mores, as well as by national and international events. As we traverse the decades from the 1930's through the 1960's, covering the Great Depression, WWII, the post-war boom, and the Civil and Women's Rights movements, students will see how these various changes affected our various family groups. We will employ popular culture artifacts like music, movies and television contemporary to, or illustrative of, the times. This LC will include guest speakers and presentations from members of the local academic and music community. This course is the equivalent to ECO 217, Economic History of the 20th Century American Family.

20062 LC 207-A Mathematical Experiments in Computer Science, 3 cr., W2:30-5:00**20056 CSC 201-A Discrete Mathematics, 3 cr., Prof. S. Simonson, MWF9:30-10:20****20057 CSC 211-A Data Structures, 3 cr., Prof. R. Bravaco, TR11:30-12:45**

Computers provide us with tools to explore mathematics in deeper ways than ever before. They allow empirical testing of mathematical conjectures with elusive proofs. Computers enable us to experimentally analyze algorithms whose performance defies theoretical analysis. This LC focuses on the delicate balance between theory and practice in computer science, revealing the dual and sometimes contradictory nature of computer science as both an engineering and a mathematical discipline.

***NOTE:** CSC 201 has a prerequisite of CSC 104 and MTH 126. CSC 211 has a prerequisite of CSC 104.*

20783 LC 209-0 Organic Chemistry of the Cell, 0 cr., Prof. L. Liotta (This course will be taken in Spring 2021)**BIO 211 Cell Biology (WID), 4 cr.****CHM 222 Organic Chemistry II, 4 cr.**

Students will select, read, and critique primary literature that ties together topics currently being learned in Cell Biology and Organic Chemistry II to develop their abilities to understand and critically analyze the literature. The seminar will culminate with student teams proposing an experiment or series of experiments that address a specific area of interest on the boundary between organic chemistry and cell biology. These proposals will be presented in both written and oral forms, allowing fellow students to evaluate and expand upon the proposed ideas.

***NOTE:** BIO 211 has a prerequisite of BIO 101 (grade of C- or better) and BIO 102. CHM 222 has a prerequisite of CHM 221 (grade of C- or better).*

***NOTE:** BIO 211 fulfills the Writing in the Disciplines requirement.*

20087 LC 235-0 Quantum Waves, 0 cr., (This course will be taken in Spring 2021)**20086 MTH 261-B Multivariable Calculus, 4 cr., Prof. H. Su, TR11:30-12:45; F11:30-12:20****20361 PHY 221-A Physics III, 4 cr, Prof. A. Massarotti, MWF 10:30-11:20, W2:30-3:55**

The course is meant for students with a strong background in elementary physics. It is a natural continuation of the two elementary physics courses PHY 121-122, and students who have already taken these preliminary courses plus MTH 126 can automatically join LC 235. "Quantum Waves" can be taken as a stand-alone course or as part of a Learning Community, which includes Multivariable Calculus (MTH 261) as well as Physics III (PHY 221). "Quantum Waves" teaches about various quantum mechanical phenomena. With the creation of quantum mechanics in the 1920s, physicists conceived of a new and unexpected kind of wave that is neither a Newtonian (c. 1700) mechanical wave nor a Maxwellian (c. 1860) electromagnetic wave. These mysterious DeBroglie – Schroedinger waves of probability are the essence of quantum mechanics. These waves determine the structure of atoms and molecules, i.e. they are the deepest foundation of both physics and chemistry.

***NOTE:** MTH 261 has a prerequisite of MTH 126. PHY 221 has a prerequisite of MTH 126 and PHY 122. LC 235 allows students to fulfill the Writing in the Disciplines requirement along with the LC requirement of the Cornerstone Program.*

20419 LC 342-A HON: Yoga, Mindfulness and Indian Philosophy, 4 cr., Prof. A. Lännström, Prof. K. Donnelly, MW2:30-3:45, R4:15-6:15

This Learning Community has two parts:

A theoretical component where we study Indian philosophy and its Western adoption. We will study classical Indian philosophy (including but not limited to the *Bhagavad Gita* and Buddhist scriptures), investigate our Western fascination with 'the mystical East', including the hatha yoga tradition, and examine some of the current research on the benefits of contemplation and on the mindfulness movement.

A practicum, where we practice hatha yoga (first hour) and discuss the experience of doing yoga on and off our yoga mats, exploring how you might use mindfulness and yoga as tools to slow down and to center, becoming more aware of your strengths and weaknesses, and better balancing your priorities (second hour).

NOTE: This LC is restricted to Honors students.

NOTE: Students will need a yoga mat, 2 yoga blocks, and a strap or belt.

NOTE: LC 342 allows students to fulfill the Moral Inquiry requirement along with the LC requirement of the Cornerstone Program. It also counts as an elective for Philosophy, Religious Studies, and Asian Studies.