

COLLEGE COURSES (COLL)

COLL-110 STEM Transitions for Transfer Students

Not Scheduled for This Year. Credits: 1

This 1-credit seminar is especially designed for students transferring to Mount Holyoke to pursue a major in the sciences or mathematics. The course will connect new transfer students to people and resources that will help them to fully engage in the sciences at Mount Holyoke and provide a space to practice the modes of discourse common to upper-level science and math courses. We explore interdisciplinary topics such as the biology of stress, and learn about science opportunities (including internships) and effective strategies for excelling in science and math courses. We use the primary literature as a text, and gain practice with analytical writing in a setting specifically designed for transfer students. The curriculum is guided by research-based best practices and is designed in consultation with former transfer students.

Applies to requirement(s): Meets No Distribution Requirement

S. Bacon

Instructor permission required.

COLL-211 Reflecting Back: Connecting Internship and Research to Your Liberal Arts Education

Fall and Spring. Credits: 2

Learn to speak with confidence and clarity about your summer internship or research project. Connect it to your academic coursework. What have you learned? How is it useful? What are your next steps? Students will reflect on their experience and collaborate with others to generate useful knowledge. Required for the Nexus but open to all students. For more information, email nexus@mholyoke.edu.

Applies to requirement(s): Meets No Distribution Requirement

M. Shea, E. Townsley

COLL-224 Being Human in STEM

Spring. Credits: 4

This interactive course combines academic inquiry and community engagement to investigate the theme of diversity and climate within STEM fields. We will begin by examining the ways in which cultural norms and practices intersect with our diverse identities and histories to shape our experiences within the STEM disciplines. How can we challenge and change existing cultures and practices to create environments where we can be our full human selves? Together we will investigate the ideas and actions of those who are changing how we construct scientific knowledge and who can engage in that work. We will then build on this foundation to develop projects that further contribute to this endeavor, engaging closely with resources and sites at Mount Holyoke and the surrounding community. Coursework includes weekly readings, reflective writing, creative projects, and in-class discussions, culminating in a public presentation of our collective work.

Applies to requirement(s): Math Sciences

Other Attribute(s): Community-Based Learning

R. Brodie, J. Luce

Restrictions: Course limited to sophomores, juniors and seniors

COLL-228 Fundamentals of Maker Culture

Spring. Credits: 4

This course immerses students in the collaborative and creative world of makerspaces, emphasizing hands-on design, inclusivity, and mentorship. Through progressive design projects – from initial concepts to more complex creations – students will reflect on their learning styles, growth, and attitudes. Course readings and discussions will cover core pedagogical principles, including growth mindset, effective feedback, and addressing bias, building a foundation for inclusive teaching. Students will develop skills in both technical tool use and inclusive mentorship, focusing on creating accessible, empowering spaces.

Applies to requirement(s): Meets No Distribution Requirement

M. Ripp

COLL-321 Fundamentals of Microscopy

Spring. Credits: 4

Microscopes are important tools used by technicians, medical professionals, and scientists to investigate interesting scientific questions and solve real-world problems. This course covers important microscopy basics including scale, the relationship between reality and the image, and the kind of information that can be captured with different types of microscopes. This course combines lecture and hands-on laboratory activities allowing students the opportunity to explore the basic principles of visible light, fluorescence, and electron microscopy. We will gain practical hands-on experience with the many forms of microscopy and learn the procedures and tools of the trade necessary to become a proficient microscopist. All students will be trained on at least one research-grade microscope during the semester and the major assignment for this course will be a final portfolio of micrographs created by each student.

Applies to requirement(s): Math Sciences

Other Attribute(s): Writing-Intensive

H. Hamilton

Prereq: 8 credits in STEM subjects.