

HUMANITY AND TECHNOLOGY (HTEC)

HTEC 101. Introduction to Humanity and Technology. 3 Units.

An introduction to the fundamental principles and methodologies for integrating the humanities, sciences, and technology. This course offers majors and prospective majors an essential foundation for subsequent studies, leading to a capstone project. For non-majors, it serves as a valuable introduction to these interdisciplinary approaches, which are applicable to many fields of study. Students explore ethics in technology and the interconnectedness of humanities and STEM methodologies while gaining hands-on experience with applied technologies like machine learning and data visualization. Through design thinking and praxis-based learning, students develop their approach to integrating humanities and STEM to address contemporary challenges, fostering critical thinking, and collaborative problem-solving skills essential for a just and sustainable future. Throughout the course, guest speakers share their experiences integrating humanities with STEM, providing insights into diverse integrative projects, and showcasing the dynamic possibilities within this interdisciplinary realm. Counts as a Moral & Ethical Reasoning course.

HTEC 301. Humanity and Technology: Toward a Just and Sustainable Socio-technical World. 3 Units.

This course explores the social and ethical ramifications that arise from the interactions of humanity and technology. Drawing on scholarly publications as well as works from popular culture, students interrogate how technologies offer new possibilities for humans to connect with each other, oppress each other, and imagine social relationships. We will focus especially on questions of how humans can harness technology to create more just and sustainable social structures; a major focus, therefore, will be on the ethical implications of technology and the uses to which humans put it. For majors and prospective majors, this course provides an essential upper-level investigation of the ethical and social ramifications that arise from the interactions of humanity and technology. The course trains students to be critical and ethical thinkers and to reflect on the questions of sustainability, justice, and ethics that are expected to drive their capstone project. As an elective for non-majors, this course provides the same training, which may be applied productively to their work in other programs. Counts as a Moral & Ethical Reasoning course.

HTEC 399A. Capstone I: Humanity and Technology. 2 Units.

This is the first part of a two-semester capstone for majors in Humanity and Technology. It is the culmination of a student's academic journey in the program, providing a platform for in-depth, immersive exploration, critical inquiry, and independent research. It provides students with the necessary skills and knowledge to conduct original research and to design and complete a high-quality capstone project that integrates their two focus areas, one in humanities or arts and one in STEM, through an applied technology. This course also explores leadership and ethical issues within the context of the research process and beyond. By the end of the semester, every student will have an approved proposal and plan for their project, which they will complete during the second semester of the capstone, HTEC 399B, which may be taken for 1-4 credit hours, depending on the scope of the project. Counts as a Capstone Project course. Prereq: HTEC 101 and HTEC 301.

HTEC 399B. Capstone II: Humanity and Technology. 1 - 4 Units.

This is the second part of a two-semester capstone for Humanity and Technology majors, this course focuses on completing a capstone project that integrates the student's two focus areas, one in a humanities or arts field and one in a STEM field, through an applied technology. This course may be taken for one to four credits, depending on the size of the project. Combined with HTEC 399A (two credit hours), capstones may thereby be completed for a total of three to six credit hours. Students are encouraged to be creative and innovative in designing and building their integrative projects, with the proviso that all projects require proposal approval by the instructor of HTEC 399A before admission to HTEC 399B. Counts as a Capstone Project course. Prereq: HTEC 399A.