HONORS (HNRS)

HNRS105. INNOVATION AND DISCOVERY IN ENGINEERING, ARTS, AND SCIENCES I. 3.0 Semester Hrs.
(I) (WI) "Innovation and Discovery in Engineering, Arts, and Sciences" (IDEAS) applies honors pedagogies in a multidisciplinary, integrated environment that highlights the seamless boundaries between science and engineering, design, ethics, and the arts as a path toward making value-informed technical decisions. In addition to developing foundational skills in engineering design and problem-solving, students examine place, identity, citizenship, and community in various contexts as they learn what it means to be an engaged and mindful citizen and professional. IDEAS poses ethical problems and hands-on design challenges from a multitude of lenses. It incorporates experiential learning, team-based projects, and seminar discussions to encourage students to think both critically and creatively about their world. Students must pass both HNRS105 and HNRS 115 to meet degree requirements. If students drop either of these courses, they must take both HASS100 and EDNS151 or their equivalents in order to graduate.
Course Learning Outcomes

- Identify design problems that respond to needs of place, identity, citizen, and community.
- Recognize and utilize multiple perspectives in the problem-definition process.
- Analyze self and community through multidisciplinary techniques.
- Evaluate a place using ethical, environmental, societal, and cultural lenses.
- Utilize observational and ethnographic research methods.
- Engage in design charrettes, writing projects, and rapid prototyping activities that demonstrate user empathy, values-sensitive design, creativity, synthesis, and/or reflection.
- Give and receive feedback during peer review and portfolio development.
- Increase ethical sensitivity and add to ethical judgment.
- Visually communicate ideas through hand sketching.
- Use written, oral, and graphic communication as a means to discover and reconsider ideas through a process of drafting, collaborating, revising, and editing.

HNRS110. LEADERSHIP BY DESIGN I. 3.0 Semester Hrs.
In the first of two semesters of this honors experience, students participate in a multidisciplinary, integrated, collaborative environment that blends leadership, design, communication, innovation, and ethics in order to build the capabilities needed to lead and address grand challenges. Students will experience a combination of experiential learning, projects, seminar discussions, guest speakers, and design sprints as they spend time gaining foundational knowledge, learning how to think in systems, analyzing grand challenges, communicating ?the story? in multiple ways to various audiences, and designing documents, presentations, objects, and exhibitions. Also, students will begin to develop their portfolio to document the story of their time in Leadership by Design. Students must pass both HNRS110 and HNRS120 to meet degree requirements.
Course Learning Outcomes

- Develop your Capabilities and Mindsets through these 10 C's, so that you Grow as a leader, communicator, thinker, designer, maker, innovator, and collaborator

HNRS115. INNOVATION AND DISCOVERY IN ENGINEERING, ARTS, AND SCIENCES II. 4.0 Semester Hrs.
(WI) "Innovation and Discovery in Engineering, Arts, and Sciences" (IDEAS) applies honors pedagogies in a multidisciplinary, integrated environment that highlights the seamless boundaries between science and engineering, design, ethics, and the arts as a path toward making value-informed technical decisions. Students examine place, identity, citizenship, and community in various contexts as they learn what it means to be an engaged and mindful citizen and professional. IDEAS poses ethical problems and hands-on design challenges from a multitude of lenses. It incorporates experiential learning, team-based projects, and seminar discussions to encourage students to think both critically and creatively about their world. Students must pass both HNRS105 and HNRS115 to meet degree requirements. If students drop either of these courses, they must take both HASS100 and EDNS151 or their equivalents in order to graduate. Prerequisite: HNRS105 with a grade of C- or higher.
Course Learning Outcomes

- Model and communicate formalized design ideas through the use of standardized engineering graphics conventions and computer-aided design/solid modeling software.
- Apply the professional techniques of leadership and team membership in the context of project management.
- Research and analyze an engineered or natural system through multidisciplinary techniques.
- Analyze and evaluate the needs, values, and perspectives of human and non-human stakeholders.
- Design solutions through an iterative testing, refining, and feedback process based on bibliographic research, analysis of technical requirements, environmental risks, user empathy, and stakeholder engagement.
- Develop written and oral arguments that meet the needs of varying rhetorical situations.
- Recognize the need for engineering solutions that are responsive to a multicultural and globalized world.
- Apply ethical reasoning in support of an engineering design solution.

HNRS120. LEADERSHIP BY DESIGN II. 3.0 Semester Hrs.
In the second of two semesters of this honors experience, students participate in a multidisciplinary, integrated, collaborative environment that blends leadership, design, communication, innovation, and ethics in order to build the capabilities needed to lead and address grand challenges. Students will experience a combination of experiential learning, projects, seminar discussions, professional development workshops, guest speakers, and design sprints. Students build on the first semester as they build leadership skills and work to be better designers, creators, thinkers, innovators, and communicators. They will address the questions ?What is good design?? ?What is good leadership?? ?What is innovation?? and ?How do I best tell the story?? Students design documents, presentations, and objects. They investigate ways to create impact and value as they define problems, pose solutions for grand challenges, and create a portfolio to document their experience to best tell the story of their time in Leadership by Design. Students must pass both HNRS110 and HNRS120 to meet degree requirements. Prerequisite: HNRS110 with a grade of C- or better.

Course Learning Outcomes

- Develop your Capabilities and Mindsets through these 10 C's, so that you Grow as a leader, communicator, thinker, designer, maker, innovator, and collaborator

HNRS150. ENTERING RESEARCH. 1.0 Semester Hr.
In this course, students will be introduced to various skills needed to be successful when conducting research. These skills include best practices to finding a research mentor, the roles and responsibilities of a researcher, developing relationships that make for a successful research experience, how to critically read and analyze scientific literature, lab safety, and disseminating research work.
Course Learning Outcomes

- Student Learning Outcomes

HNRS198. SPECIAL TOPICS. 6.0 Semester Hrs.
A Special Topics course will be a pilot course in the UHSP curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.

HNRS199. INDEPENDENT STUDY. 1-6 Semester Hr.
Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

HNRS298. SPECIAL TOPICS. 1-6 Semester Hr.
A Special Topics course will be a pilot course in the UHSP curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.

HNRS299. INDEPENDENT STUDY. 1-6 Semester Hr.
Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

HNRS305. EXPLORATIONS IN MODERN AMERICA. 3.0 Semester Hrs.
(WI) Honors core course that develops student skills in reading, writing, critical thinking, and oral communication. skills through the exploration of selected topics related to the social, cultural, and political ideas and events that have shaped the development of the modern United States and its role in the world. 3 lecture hours, 3 credit hours. Prerequisite: HASS100 or HNRS105, HNRS115 or HNRS110, HNRS120 or HNRS198A.

HNRS315. EXPLORATIONS IN THE MODERN WORLD. 3.0 Semester Hrs.
(WI) Honors core course that develops student writing skills and critical thinking abilities through the exploration of selected topics related to the social, cultural, and political ideas and developments that have shaped the modern world. 3 lecture hours, 3 credit hours. Prerequisite: HASS100 or HNRS105, HNRS115 or HNRS110, HNRS120 or HNRS198A.

HNRS398. SPECIAL TOPICS IN THE UNIVERSITY HONORS AND SCHOLARS PROGRAM. 1-6 Semester Hr.
A Special Topics course will be a pilot course in the University Honors & Scholars Programs curriculum or will be offered as an enhancement to regularly-scheduled UHSP seminars. Special Topics courses in the UHSP curriculum will not be offered more than twice.

HNRS399. INDEPENDENT STUDY. 1-6 Semester Hr.
Under special circumstances, a UHSP student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled UHSP curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.

HNRS405. MCBRIDE PRACTICUM. 1-3 Semester Hr.
(I, II) (WI) With approval of the Program, a McBride student may enroll in an individualized study project which substitutes for or enhances the regularly-scheduled McBride curriculum seminars. This option may be used to pursue an approved foreign study program, service learning program, international internship, undergraduate research project, or other authorized experiential learning program of study. Students must also prepare a faculty-guided major research paper that integrates the experience with the goals, objectives, and focus of the Honors Program in Public Affairs. 1-3 semester hours. Repeatable up to 6 hours.

HNRS425. EXPLORATIONS IN POLITICS, POLICY, AND LEADERSHIP. 3.0 Semester Hrs.
(WI) Study of selected topics related to policy, politics, and/or leadership through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in The Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS430. EXPLORATIONS IN IDEAS, ETHICS, AND RELIGION. 3.0 Semester Hrs.
(WI) Study of selected topics related to ideas, ethics, and/or religion through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS435. EXPLORATIONS IN CULTURE, SOCIETY, AND CREATIVE ARTS. 3.0 Semester Hrs.
(WI) Study of selected topics related to culture, society, and/or the creative arts through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS440. EXPLORATIONS IN INTERNATIONAL STUDIES & GLOBAL AFFAIRS. 3.0 Semester Hrs.
(WI) Study of selected topics related to international studies and/or global affairs through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS445. EXPLORATIONS IN SCIENCE, TECHNOLOGY, AND SOCIETY. 3.0 Semester Hrs.
(WI) Study of selected topics related to the relationships between science, technology, and society through case studies, readings, research, and writing. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS450. EXPLORATIONS IN EARTH, ENERGY, AND ENVIRONMENT. 3.0 Semester Hrs.
(WI) Study of selected topics related to earth, energy, and/or the environment through case studies, readings, research, and writing. This course may focus on the human dimensions or broader impacts of science, technology, engineering, or mathematics. Prerequisites: HNRS305: Explorations in Modern America and HNRS315: Explorations

in the Modern World. Repeatable for credit up to a maximum of 6 hours. 3 lecture hours, 3 credit hours.

HNRS476. COMMUNITY ENGAGEMENT THROUGH SERVICE LEARNING. 3.0 Semester Hrs.
(II) Community Engagement through Service Learning combines a traditional classroom environment with an off campus learning experience with a local non-profit or community organization. Students spend 3-4 hours per week serving the organization they choose and meet in class once per week to discuss reading assignments, present research findings, and share experiences and insights about the course material. Instructors may choose to focus on a particular topic or social issue, such as poverty and privilege, or may engage with community issues more broadly. The course focuses on several aspects of a student?s learning, including intra- and interpersonal learning, discovering community, and developing communication skills and critical and interdisciplinary approaches. Course work will focus on critical reading, group discussion and deliberation, oral presentations of research, and writing assignments. Prerequisites: none. 2 hours lecture; 3-4 hours lab; 3.0 semester hours.

HNRS496. PAYNE SCHOLARS PROGRAM. 1.0 Semester Hr.
Mines graduates often go on to become corporate leaders and are responsible for many of the innovations and changes seen across industries. In much the same way, the research done at Mines has far reaching implications for many of the social, economic, and environmental challenges faced around the world. To develop these relationships, and to prepare students for future roles, the Payne Institute partnered with students to develop a public policy community that uses all the School of Mines? resources to be both physical and social engineers of the world around them. One of the most prominent ways we do this is through the Payne Scholars program. This one-credit course helps students perform research, collaborate across campus, and engage with a broad network of international experts on global policy challenges. Students are taught how to write academic papers on the important issues we are facing today, and once the students finish the course, the papers they write can be published as Payne Commentaries on our website. We often sponsor students for internships, or offer student worker positions to continue their work. This often means that they get to be co-authors on peer-reviewed academic papers or help us build world-shaping policy.

HNRS498. SPECIAL TOPICS IN THE MCBRIDE HONORS PROGRAM IN PUBLIC AFFAIRS. 1-6 Semester Hr.
A Special Topics course will be a pilot course in the McBride curriculum or will be offered as an enhancement to regularly-scheduled McBride seminars. Special Topics courses in the McBride curriculum will not be offered more than twice. Variable credit: 1 - 6 semester hours. Repeatable for credit under different titles.

HNRS499. INDEPENDENT STUDY. 1-6 Semester Hr.
Under special circumstances, a McBride student may use this course number to register for an independent study project which substitutes for or enhances the regularly-scheduled McBride curriculum seminars. Variable credit: 1 - 6 semester hours. Repeatable for credit.