HON 1920 Freshman Colloquium: Social Science (Honors) 3(3) Interdisciplinary intensive seminar that engages freshman honors students in dialogue about the “idea of the University.” Explores foundations and consequences of human thought and behavior at the individual and societal levels, with emphasis on concepts and tools that organize scholarly inquiry across the social and behavioral sciences. Topics vary. Preq: Membership in Calhoun Honors College.

HON 1930 Freshman Colloquium: Cross-Cultural Awareness (Honors) 3(3) Interdisciplinary intensive seminar that engages freshman honors students in dialogue about the “idea of the University.” Explores traditions, customs, and value systems of peoples and cultures. Examines concepts and tools that organize scholarly inquiry into world cultures emphasizing non-Western societies. Topics vary. Preq: Membership in Calhoun Honors College.

HON 1940 Freshman Colloquium: Science and Technology in Society (Honors) 3(3) Interdisciplinary intensive seminar that engages honors students in dialogue about the “idea of the University.” Explores interactions of the sciences and technology with society. Examines how science and technology are social enterprises and the impact of science and technology on attitudes, behaviors, and choices. Topics vary. Preq: Membership in Calhoun Honors College.

HON 2010 Structures and Society (Honors) 3(3) Interdisciplinary honors seminar that examines selected structures regarded as monuments to artistic creativity and technological genius and the ways that structures affect and are affected by the societies that produce them. Preq: Membership in Calhoun Honors College.

HON 2020 Science, Culture, and Human Values (Honors) 3(3) Interdisciplinary honors seminar that unifies natural scientific, social scientific, and humanistic disciplines into a holistic view of the modern world and its future. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2030 Society, Art, and Humanities (Honors) 3(3) Combines readings and methodologies from the social sciences, arts, and humanities to study the interrelationships among the disciplines and their societal effects. Subjects vary. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2040 Honors Study/Travel 1(3) Study/travel experience related to a three-credit Calhoun Honors Seminar. May be repeated for a maximum of three credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2050 Current Issues 1-3(1-3) Examination of a current issue or set of issues from a variety of academic perspectives. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2060 Controversies in Science and Technology (Honors) 3(3) Interdisciplinary honors seminar that examines social issues related to science and technology, using perspectives from science, the social sciences, and humanities. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2070 Reasoning, Critical Thinking, and Problem Solving (Honors) 3(3) Interdisciplinary honors seminar that teaches a particular set of tools for thinking and analyzing, showing how these tools can be applied to different kinds of problems in different disciplines. May be repeated for a maximum six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2080 Border Crossings: Experiences in World Cultures (Honors) 1-3(1-3) Readings and studies that heighten understanding of world cultures and societies. Taken in conjunction with international educational experiences approved by Calhoun Honors College. May be repeated for a maximum of six credits, with a maximum of three credit hours per study abroad experience. Preq: Membership in Calhoun Honors College.

HON 2100 Experiencing the Arts 3(2) Interdisciplinary exploration of the arts through seminar discussions and attendance at performing and visual arts events on campus. Exploration of arts and aesthetics leading to performance previews, reviews, and experiences of Brooks Center and Lee Gallery events. May be repeated for a maximum of nine credits. Preq: Membership in Calhoun Honors College. Coreq: HON 2100.

HON 2101, Experiencing the Arts (Honors) Laboratory 0(3) Non-credit laboratory to accompany HON 2100. Coreq: HON 2100.

HON 2200 Studies in Social Science (Honors) 3(3) Discipline specific social science seminar including a disciplinary introduction (anthropology, economics, history, political science, psychology or sociology) and a detailed examination of specific theories and methods within that discipline. May be repeated for a maximum of six credits, but only if different disciplines are covered. Preq: Membership in Calhoun Honors College.

HON 2210 Studies in Literature (Honors) 3(3) Introduction to selected authors and literary works focused around a specific topic. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2215 Studies in Humanities (Honors) 3(3) Exploration of various topics in communications. Focus may be on a particular type of communication, medium or theory. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2220 Studies in Arts and Humanities (Honors) 3(3) Exploration of music, literature, film, philosophy or another area in humanities by examining a discipline specific topic. Focus may be on a particular scholar, era or culture idea or concept specific to a particular arts/humanities discipline. May be repeated for a maximum of six credits, but only if different disciplines are covered. Preq: Membership in Calhoun Honors College.

HON 2230 Studies in Communications (Honors) 3(3) Explores various topics in communications. Focus may be on a particular type of communication, medium or theory. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 2240 Global Issues 3(3) Exploration of various global issues across time and space. May be repeated for a maximum of six credits, but only if different topics are covered. Preq: Membership in Calhoun Honors College.

HON 4000 Honors Contract 0(0) Advanced study and research taken in conjunction with any 3000- or 4000-level course. Contract requires prior approval by instructor and Honors Director. To be taken Pass/No Pass only. May be repeated once, but only if in conjunction with a different course. Preq: Membership in Calhoun Honors College.

HON 4010 Interdisciplinary Honors Independent Study 1(1) Independent study taken in conjunction with another undergraduate course as part of the student’s approved interdisciplinary honors program. Preq: Membership in Calhoun Honors College.

HON 4990 Honors Research 1-12(1-12) Honors directed research in an academic discipline. Topics include, but are not limited to, literature review, research design and execution, and reporting of results. May be repeated for a maximum of 12 credits. Preq: Membership in Calhoun Honors College.

HORT 1010 Horticulture 3(3) Environmental factors and horticultural practices affecting optimum production of floral, fruit, ornamental, and vegetable crops. Includes a survey of the various areas of horticulture and their importance to society.

HORT 1020 Experience Horticulture 1(2) Students experience the art, science, business, and diversity of horticulture through visits to greenhouses, nurseries, botanical gardens, athletic fields, golf courses, orchards, farms, and research fields and laboratories. Students learn about horticulture from a cross section of professionals sharing their work experiences. Preq: Freshman or sophomore standing in Horticulture or Turfgrass.

HORT 2020 Selected Topics 1-1(3) Introduction to developing trends, concepts or technologies in horticulture and/or turfgrass. May be repeated for a maximum of three credits, but only if different topics are covered. Preq: Consent of instructor.

HORT 2080 Landscape Appreciation 3(3) Deepens students’ appreciation of natural and built environments through a study of landscape elements, styles, and professions. Landscapes ranging in scale from residential to regional are critiqued, and design principles and landscape ethics are discussed.

HORT 2100 Growing Garden Plants in the Fall 3(2) Focuses on growing techniques for the production of ornamental and edible horticultural crops during the fall growing season. Lectures focus on scheduling, fertilization, irrigation, integrated pest management and marketing. Labs focus on providing hands-on opportunities to identify and grow flowering crops and vegetables in greenhouses and the field. Preq: HORT 1010. Coreq: HORT 2101.

HORT 2101 Growing Garden Plants in the Fall Laboratory 0(3) Non-credit laboratory to accompany HORT 2100. Coreq: HORT 2101.
HORT 2110 Growing Garden Plants in the Spring (3) Focuses on growing techniques for the production of ornamental and edible horticultural crops during the spring growing season. Includes scheduling, manipulation of vegetative growth and flowering, nutritional management and plant growth regulation. Labs focus on providing hands-on opportunities to grow flowering crops and vegetables in the greenhouse and field. Preq: HORT 2100. Coreq: HORT 2111.

HORT 2111 Growing Garden Plants in the Spring Laboratory (0) Non-credit laboratory to accompany HORT 2110. Coreq: HORT 2110.

HORT 2120 Introduction to Turfgrass Culture (3) Studies of the introductory concepts associated with the art and science of turfgrass culture. Develops an understanding of the history and evolution of turfgrass and turfgrass culture. Explores career potentials in turfgrass management. Explains the basic scientific principles and techniques associated with the propagation and establishment of turfgrasses. Preq: BIOL 1030 and BIOL 1040.

HORT 2130 Turfgrass Culture Laboratory 1(2) Provides hands-on activities and understanding of basic principles and techniques in turfgrass culture. Students learn all phases of turfgrass management including identification, turfgrass culture, common turfgrass pest identification and control. Preq or concurrent enrollment: HORT 2120.

HORT 2710 Internship 1(6-16) Preplanned, practical, supervised work experience to give beginning students on-the-job learning opportunities that support classroom experience. Students submit monthly reports and present a departmental internship seminar. Undergraduates may accumulate a maximum of six credits for participation in HORT 2710 and/or 4710. Preq: Consent of instructor.

HORT 3030 Landscape Plants 3(2) Woody, ornamental plants and their aesthetic and functional uses in landscape developments. Study covers habit of growth, ultimate size, texture, period of bloom, color, and cultural requirements. Coreq: HORT 3031.

HORT 3031 Landscape Plants Laboratory 0(3) Non-credit laboratory to accompany HORT 3030. Coreq: HORT 3030.

HORT 3040 Annuals and Perennials Laboratory 3(2) Annual and perennial flowers' aesthetic appeal and functional uses and needs. Color, texture, bloom time, form, size, and growth requirements as they relate to designing, planting, and maintaining colorful landscapes. Preq: HORT 2080 and HORT 3030. Coreq: HORT 3041.

HORT 3041 Annuals and Perennials Laboratory 0(3) Non-credit laboratory to accompany HORT 3040. Coreq: HORT 3040.

HORT 3080 Sustainable Landscape Design, Installation and Maintenance 3(3) Landscape planning of gardens using environmentally sensitive design, construction, and maintenance practices. Survey skills to obtain user perception and preference and environmental measurement skills are introduced. Offered fall semester only. Preq: HORT 1010.

HORT 3090 Sustainable Landscape Garden Design Laboratory 1(3) Landscape garden design using sustainable environmentally sensitive concepts and practices. Techniques of sustainable landscape garden design including hard hand drawing, site assessment, client interview, user perception survey, plant selection, and professional presentation. Plant selection encourages establishing healthy ecosystems. Emphasis on interactions between design, installation, and maintenance phases. Preq or concurrent enrollment: HORT 3080.


HORT 3101 Growing Landscape Plants Laboratory 0(3) Non-credit laboratory to accompany HORT 3100. Coreq: HORT 3100.

HORT 4000 Selected Topics 1-6(1-6) A directed study of any aspect of horticulture and/or turfgrass not addressed in other courses. May be repeated for a maximum of six credits, but only if different topics are covered.

HORT 4040* Plant Propagation 3(3) Practices of plant propagation from seeds, bulbs, divisions, layers, cuttings, grafting, and plant tissue culture are introduced. Physiological principles of pollination and seed biology, plant growth, regulators, source sink relations, life cycles and developmental phase transitions explain the practices. Environmental and economic contexts frame the preferred practices.

HORT 4050* Plant Propagation Techniques Laboratory 1(3) Techniques of plant propagation, including sexual methods: germination, scarification, and stratification. Asexual methods, including grafting, budding, cuttings, layering, tissue culture divisions, and separations. Students visit local nurseries. Preq or concurrent enrollment: HORT 4040.

HORT 4080 Horticulture Discovery and Inquiry 1-3(1-3) Students learn about horticulture through research, service learning, and/or creative inquiry projects. They explore a topic of interest with faculty, organize a quality proposal, complete the project, and report results to appropriate professional audiences. May be repeated for a maximum of nine credits.

HORT 4090 Senior Capstone Course 3(3) Student cognitive, affective and psychomotor learning (skills) in the field of environmental horticulture is assessed using real world professional situations requiring the command, analysis and synthesis of knowledge and skills acquired during the undergraduate experience. Preq: Senior standing in horticulture.

HORT 4120* Advanced Turfgrass Management Laboratory 0(3) Non-credit laboratory to accompany HORT 4120. Coreq: HORT 4120.
HUM 3010 Humanities 3(3) Introduction to humanistic studies focusing on relationships among disciplines—painting, sculpture, architecture, music, literature, philosophy, and drama—beginning with prehistory and continuing to the Renaissance.

HUM 3020 Humanities 3(3) Introduction to humanistic studies focusing on relationships among disciplines—painting, sculpture, architecture, music, literature, philosophy, and drama—beginning with the 17th century and continuing to the present.

HUM 3060 Creative Genius in Western Culture 3(3) Investigation of creativity through study of great innovators in art, literature, music, and ideas. May be repeated once for credit.

HUM 3090 Studies in Humanities 3(3) Interdisciplinary approach to the humanities. Special subject matter varies according to the instructor and as approved by the chair of the English Department. May be repeated once for credit.

HUM (ENGL) 4560 Literature and Arts of the Holocaust 3(3) Addresses the Holocaust through literature, art, architecture, music, and film. Beginning with historical, political, and economic forces that contributed to the Holocaust, course then focuses on highly diverse creative responses to this event—responses that often reflect the difficulties and politics of these commemorative gestures. May also be offered as ENGL 4560. Preq: ENGL 3010.

INDUSTRIAL ENGINEERING


IE 2000 Sophomore Seminar in Industrial Engineering 1(1) Addresses the industrial engineering program, best student practices, and career paths. Invited lecturers, as needed, and faculty provide lectures and demonstrations. Preq: ENGR 1060 or ENGR 1090, each with a C or better.

IE 2100 Design and Analysis of Work Systems 3(2) Introduction to the tools and techniques used to design and analyze work systems for human use, including process improvement, workplace design and an introduction to the field of human factors and ergonomics. Preq: ENGR 1060 with a C or better, and either ENGL 1020 or ENGL 1030 with a C or better.

IE 2100* Design and Analysis of Work Systems Laboratory 0(3) Non-credit laboratory to accompany IE 2100. Coreq: IE 2100.

IE 2680* Creative Inquiry Seminar in Industrial Engineering 1(1) Students are introduced to creative inquiry methods, resources, and current activities in a seminar format. To be taken Pass/No Pass only. Includes Honors sections.

IE 2800 Deterministic Operations Research 3(3) Introduction to operations research models, including linear programming, integer linear programming, transportation and assignment problems, and network flows. Preq: MATH 1060 or MATH 1070 with a C or better.

IE 3000* Honors Seminar 1(1) Acquaints students enrolled in the Departmental Honors Program with current research issues in the profession. This assists students in preparing a research proposal for the senior thesis. Preq: Junior standing and admission to Departmental Honors Program.

IE 3010 Systems Design I 4(3) Introduction to the design of industrial engineering systems. Design methodologies are introduced in the context of a design process that includes identifying user needs; developing a design specification; generating, evaluating, refining, and selecting design concepts; detail design; constructing, testing, and refining prototypes; and delivering the product to the customer. Preq: ENGR 1060 with a C or better, and ENGL 1020 or ENGL 1030 with a C or better.

IE 3011 Systems Design I Laboratory 0(3) Non-credit laboratory to accompany IE 3010. Coreq: IE 3010.

IE 3600 Industrial Applications of Probability and Statistics I 3(3) Introduces central concept that overall system performance can be improved by taking uncertainty into account, especially through the reduction of variability. Specific industrial applications, such as decision analysis, reliability and probabilistic inventory models, are emphasized. Preq: MATH 2600.

IE 3610 Industrial Applications of Probability and Statistics II 3(3) Introduces central concept that apparent conflict between productivity and quality can be resolved through improvements in processes by introducing statistical thinking. Specific industrial applications, such as (static) simulation, quality control and reliability models, are emphasized. Preq: IE 3600.

IE 3680 Professional Practice in Industrial Engineering 1(1) Seminar to orient students to issues of professional development and professional practice of industrial engineering.

IE 3810 Probabilistic Operations Research 3(3) Probabilistic modeling of engineering systems. Topics include calculus-based probability, Markov processes, Poisson processes, queuing, and other selected topics. Preq: IE 2800 and IE 3600.


IE 3860 Production Planning and Control 3(3) Fundamentals of forecasting demand, scheduling production, and controlling the movement and storage of material associated with production are studied. State-of-the-art manufacturing techniques are discussed. Preq: IE 2800 or MATH 4400.

IE 4000* Honors Thesis 1-6(1-6) Individual or joint research project performed with a faculty mentor or committee of faculty. May be repeated for a maximum of six credits. Preq: IE 2800 and consent of mentor.

IE 4040 Creative Inquiry Research 1-6(1-6) Research experience promoting reasoning, critical thinking, ethical judgment, communication skills, and an understanding of the scientific method and engineering design. These applied/basic research experiences are usually undertaken with a team under the mentorship of a faculty member or advanced graduate student.

IE 4300* Human Factors Engineering in Healthcare 3(3) Focuses on how industrial engineers help improve the quality and safety of patient care. Students learn how healthcare is different from traditional industrial engineering sectors. A substantial part of the course is focused on learning how to apply industrial engineering tools, specifically those grounded in human factors, to healthcare problems. Preq: IE 2100 or IE 4880 or PSYC 3640 or PSYC 3680 or PSYC 4350.