EDSP 4930 Classroom and Behavior Management for Special Educators 3(3) Students describe various intervention strategies for increasing and maintaining appropriate behaviors and for decreasing or eliminating inappropriate behaviors. Students accurately recognize, record, and chart inappropriate behaviors; employ the least restrictive intervention; foster self-management skills; and develop preventive strategies and classwide systems for managing academic and social behavior. Offered fall semester only. Preq: EDSP 4910; and admission to the professional level. Coreq: EDSP 4900 and EDSP 4920 and EDSP 4940 and EDSP 4960 and EDSP 4970.

EDSP 4940 Directed Teaching 3(9) Directed Teaching for preservice special education teachers preparing to teach individuals with mild/moderate disabilities. Offered fall semester only. Preq: EDSP 4910; and admission to the professional level. Coreq: EDSP 4900 and EDSP 4920 and EDSP 4930 and EDSP 4940 and EDSP 4960 and EDSP 4970.

EDSP 4950 Communication and Collaboration in Special Education 3(3) Focuses on effective communication skills for preservice special education teachers to encourage collaboration among relevant stakeholders and improve outcomes for individuals with disabilities. Preq: EDSP 4910. Coreq: EDSP 4980.

EDSP 4960 Special Education Field Experience 3 (9) Supervised practical experience prior to Directed Teaching for preservice special education teachers preparing to teach individuals with mild/moderate disabilities. Offered fall semester only. Preq: EDSP 4910; and admission to the professional level. Coreq: EDSP 4900 and EDSP 4920 and EDSP 4930 and EDSP 4940 and EDSP 4960.

EDSP 4970 Secondary Methods for Individuals with Disabilities 3(3) Preparation for working with students with mild/moderate disabilities in secondary schools. Focus is on literature, methods, and materials for providing instruction in transition, self-determination, knowledge within content areas, functional skills, and integration into the community. Offered fall semester only. Preq: EDSP 4910; and admission to the professional level. Coreq: EDSP 4900 and EDSP 4920 and EDSP 4930 and EDSP 4940 and EDSP 4960.

EDSP 4980 Directed Teaching in Special Education 12(34) Comprehensive course providing a full-time, semester-long experience for preservice special education teachers who plan to teach individuals with mild/moderate disabilities. Generally the last course in the program; provides teaching experience under the supervision of University and school personnel. Offered spring semester only. Preq: EDSP 4960 Coreq: EDSP 4950.

ENVIRONMENTAL ENGINEERING AND SCIENCE

Professors T.A. DeVolve, D.L. Freedman, T.J. Oercamp, M.A. Schlauman; Associate Professors E.R. Carraway, K.T. Finneran, B.A. Powell; Assistant Professors M. Carbajales-Dale, D.A. Ladner, L. Schuller-Nichols

EES 4100 Environmental Engineering Fundamentals I 3(3) Overview of topics and engineering application areas that comprise the environmental engineering profession. Significant emphasis is given to development of oral and written communication skills needed by the engineering professional and application of engineering fundamentals to environmental systems. Preq: CH 1010 and ENGR 1060 and MATH 1080, each with a C or better. Preq or concurrent enrollment: CHE 1130 or ENGR 1070.

EES 4101 Environmental Engineering Fundamentals II 4(3) Overview of fundamentals related to environmental engineering processes, including water treatment, wastewater treatment, solid and hazardous waste management, air pollution control, risk assessment, and pollution prevention strategies. Laboratories cover measurement techniques and applications to process engineering. Preq: CH 1020; and EES 2010; and CHE 1300 or ENGR 1030. Students must have a C or better in EES 2100 and ENGR 1090 to meet the prerequisite requirement. Coreq: EES 2020.

EES 4102 Environmental Engineering FundamentalsII Laboratory 3(3) Coreq: EES 4100 and EES 4101.

EES 4103 Environmental Engineering Fundamentals III Laboratory 1(3) Laboratory exercises to accompany EES 4100. Coreq: EES 4100 and EES 4101.

EES 4104 Environmental Radiation Protection I 3(3) Fundamentals of radiation protection in the environmental engineering field. Additional topics include the nuclear fuel cycle. Preq: MATH 2060 or EES 2020 or EES 2030.

EES 4105 Environmental Radiation Protection II 3(3) Laboratory exercises in radiation detection and measurement. Topics include nuclear electronics, counting statistics, radiation interactions; basic gas, scintillation, and semiconductor detectors; gamma-ray spectroscopy; health physics survey instrumentation; and thermoluminescent dosimetry. Preq: EES 4100. Coreq: EES 4101.

EES 4110 Environmental Radiation Detection and Measurement Laboratory 3(3) Non-credit laboratory to accompany EES 4110. Coreq: EES 4110.
EES 4120 Nuclear Fuel Cycle and Radioactive Waste Management 3(3) Materials flow throughout the nuclear fuel cycle emphasizing safe handling of radioactive material; environmental aspects of fuel cycle activities; radioactive waste management; nuclear nonproliferation and safeguards; nuclear forensics. Preq: EES 3100. Preq or concurrent enrollment: EES 4100.

EES 4140* Radioecology 3(3) An introduction to

EES 4500 Professional Seminar 1(1) Development, professional registration, professional ethics, and other factors necessary for achieving success in a professional career. Course enables students to make decisions that will help them succeed in their careers. Preq or concurrent enrollment: EES 3030 and EES 3040 and EES 3050 and EES 4300.

EES 4751 Capstone Design Project Laboratory 0(6) Non-credit laboratory to accompany EES 4750 Coreq: EES 4750.

EES 4800* Environmental Risk Assessment 3(3) Quantitative estimation of human health risk posed by the release of a contaminant to the environment. Topics include methods for analyzing emission rate, environmental transport, exposure, and health effects; methods of uncertainty analysis; and the role of risk assessment in environmental regulation and environmental decision making. Preq: EES 2020 or EES 4010; and MATH 2080 with a C or better.

EES (BE) 4840* Municipal Solid Waste Management 3(3) Introduction to the problems, regulations, collection, handling, recycling, and disposal of municipal solid wastes in the urban and rural sectors. Emphasizes an integrated waste-management system with resource recovery, composting, incineration, landfill disposals, and their costs. May also be offered as BE 4840. Preq: EES 2020 or EES 4010.

EES 4850* Hazardous Waste Management 3(3) Introduction to the problems, regulations, treatment, and ultimate disposal of hazardous and toxic materials. Spill cleanup, groundwater transport, land disposal, incineration, and treatment technologies are discussed. Preq: EES 2020 or EES 4010; and CH 2010 or CH 2230.

EES 4860* Environmental Sustainability 3(3) Topics include sustainable engineering and industrial ecology with emphasis on pollution prevention methods using source reduction, recycling assessments, treatment to reduce disposal, life-cycle assessment and design for the environment. Emphasizes case studies. Preq: Junior standing in College of Engineering, Computing and Applied Sciences.

EES 4900* Special Projects 1-3(1-3) Studies or laboratory investigations on special topics in the environmental engineering and science field. Arranged on a project basis with a maximum of individual student effort and a minimum of staff guidance. May be repeated for a maximum of three credits. Includes Honors sections. Preq: Consent of instructor.

EES 4910 Selected Topics in Environmental Engineering 1-3(1) Study of the dynamic role of environmental engineering in maintaining environmental quality. A comprehensive study of any phase of environmental engineering. May be repeated for credit, but only if different topics are covered. Preq: Consent of department chair.

EES 4950 Honors Thesis in Environmental Engineering 1(1) Continuation of EES 4900. Students complete their honors thesis in environmental engineering and give an oral presentation of the results. Preq: EES 4000 and consent of instructor and membership in the Calhoun Honors College.

EXECUTIVE LEADERSHIP AND ENTREPRENEURSHIP

Professor: W. H. Stewart; Associate Professor: C. C. Navig; Assistant Professors: A. E. Ingram, E. E. Powell; Lecturers: J. E. Hopkins; A. H. Parnell

ELE 3010 Introduction to Entrepreneurship 3(3) An overview of entrepreneurship topics: opportunity creation and discovery, business concepts and business models, feasibility and business plans. Financial, managerial, legal, social and ethical issues are also addressed. Preq: MGT 2010.

ELE (MKT) 3140 New Venture Creation I 3(3) First in a two-part series that continues with MGT (ELE) 3150 assessing entrepreneurial opportunities. Focuses on creativity, idea generation, market opportunity analysis, strategy, and methods of entry. Opportunity analysis may be developed into a full new venture plan in ELE 3150 or M GT 3150. May also be offered as MKT 3140. Preq: Junior standing.

ELE (MGT) 3150 New Venture Creation II 3(3) Through the development of a business plan, the course focuses on creating an organization capable of effectively exploiting a viable opportunity. Topics include organization strategy and design, startup capital, operations and sourcing issues, leadership, team building, and management of rapid growth. May also be offered as MGT 3150. Preq: ELE 3150.

ELE (ECON) 3210 Economics of Innovation 3(3) Examines the nature of entrepreneurship and the contribution of innovation to economic growth. Investigates the organizational and institutional sources of innovation in different firms and different countries as well as the work of economic theorists concerning the role entrepreneurs play in bringing new products to market. May also be offered as ECON 3210. Preq: ECON 3060 or ECON 3140.

ELE 3560 Social Science of Entrepreneurship 3(3) Examines those areas of the social sciences that have direct relevance for entrepreneurs. Topics include processes by which entrepreneurs are shaped by social institutions such as the family and community, public policy implications and influences on entrepreneurship, risk perception, decision making, motivation, leadership, and group dynamics. May also be offered as PSYC 3560 or SOC 3560. Preq: SOC 2010 or SOC 2020 or SOC 2350 or PSYC 3100 or PSOC 1020 or PSOC 1020 or PSOC 1040.

ELE 4000* Technology Entrepreneurship 3(3) Introduction to technology entrepreneurship emphasizing ideation, opportunity assessment, market and technology forecasting, intellectual property protection, financial modeling and business valuation, project management, and cross-functional team building. Preq: Junior standing in the College of Engineering, Computing and Applied Sciences.

ELE 4010 Executive Leadership and Entrepreneurship II 3(3) Continuation of ELE 3010 with extensive use of a computer-simulated business start-up. Preq: ELE 3010.