

DANC 242. Intermediate Ballet I (0, 4). 2 credits. *Offered fall and spring.*
Intermediate skills in ballet technique. May be repeated for credit.
Prerequisite: DANC 142 or permission of the instructor.

DANC 245. Dance Improvisation (0, 4). 2 credits. *Offered fall.*
Development of individual, group and environmental awareness; extension of individual movement vocabulary; and theory and exploration of the inter-relationships of the visual and theatre arts through structured improvisation.

DANC 246. Intermediate Jazz. 2 credits. *Offered spring.*
Intermediate skills in jazz dance technique, vocabulary and movement combinations. May be repeated for credit. *Prerequisite: DANC 146 or permission of the instructor.*

DANC 247. Intermediate Tap. 2 credits. *Offered once every other year.*
Intermediate skills in tap dance technique, vocabulary and models of sequencing. May be repeated for credit. *Prerequisite: DANC 147 or permission of instructor.*

DANC 248. History of Dance: Renaissance Through the 20th Century. 3 credits. *Offered spring.*
A survey of dance history in Western civilization from the Renaissance to the present. Emphasis is on the dance idioms of ballet and modern.

DANC 311 Contemporary Dance Ensemble Repertory II (0, 4). 2 credits.
Offered fall and spring.

Intermediate-level experiences in performance, choreography and technical theatre with a modern dance ensemble. May be repeated for credit.
Prerequisites: DANC 211 or the equivalent and concurrent enrollment in a dance technique course.

DANC 312. Virginia Repertory Dance Company II (0, 4). 2 credits.
Offered fall and spring.

Advanced rehearsal, performance and technical theatre experience in a modern dance company. May be repeated for credit. *Prerequisites: Permission of the instructor and concurrent enrollment in a dance technique course.*

DANC 320. Anatomy and Somatic Studies for the Dancer. 3 credits.
Offered fall.

An introduction to the structure and function of the human body, along with an overview of contemporary bodywork theories and techniques essential to the education of dancers. Emphasis will be on the application of knowledge within the context of dance technique.

DANC 325. Dance in Community. 2 credits. *Offered spring.*
This course introduces students to the use of creative movement and dance in community settings. Emphasis is on concepts and skills utilized in designing and implementing movement experiences for diverse populations.

DANC 340. Intermediate Modern Dance II (0, 4). 2 credits. *Offered fall and spring.*

Modern dance technique on an accelerated intermediate level. May be repeated for credit. *Prerequisite: DANC 240 or permission of the instructor.*

DANC 342. Intermediate Ballet II (0, 4). 2 credits. *Offered fall and spring.*
Ballet technique on an accelerated intermediate level. May be repeated for credit. *Prerequisite: DANC 242 or permission of the instructor.*

DANC 345. Dance Composition I (2, 2). 3 credits. *Offered spring.*
Introductory studies of dance composition with focus on the learning and development of choreographic techniques and styles. Compositional movement studies and solo/duet dances will be utilized for exploring and developing the student's individual creativity. *Prerequisite: DANC 245 or permission of the instructor.*

DANC 346. Intermediate Jazz II/Musical Theater Styles. 2 credits.
Offered fall.

A continuation of the jazz dance techniques in the dance program at the upper-intermediate level. Primary focus of this class will be on the study and training of historic and contemporary musical theatre jazz movement. May be repeated for credit. *Prerequisite: DANC 246 or permission of instructor.*

DANC 390. New Directions in Dance. 1-3 credits. *Offered once a year.*
Study of selected timely topics in dance. May be repeated when course content changes. See e-campus for current topic.

DANC 411. Contemporary Dance Ensemble Repertory III (0, 4). 2 credits. *Offered fall and spring.*

Advanced-level experiences in performance, choreography and technical theatre with a modern dance ensemble. May be repeated for credit.
Prerequisites: DANC 311 or the equivalent and concurrent enrollment in a dance technique course.

DANC 412. Virginia Repertory Dance Company III (0, 4). 2 credits.
Offered fall and spring.

Advanced rehearsal, performance and technical theatre experience in a modern dance company for the professional level dancer. May be repeated for credit. *Prerequisites: Permission of the instructor and concurrent enrollment in a dance technique course.*

DANC 440. Advanced Modern Dance (0, 4). 2 credits. *Offered fall and spring.*
Modern dance technique on an advanced level. May be repeated for credit. *Prerequisite: DANC 340 or the equivalent.*

DANC 442. Advanced Ballet (0, 4). 2 credits. *Offered fall and spring.*
Ballet technique on an advanced level. May be repeated for credit. *Prerequisite: DANC 342 or the equivalent.*

DANC 445. Dance Composition II (2, 2). 3 credits. *Offered fall.*
Dance composition study involving the development and use of complex choreographic structures with emphasis on creating small and large group dance compositions, as well as the exploration of contemporary choreographic styles and techniques. *Prerequisite: DANC 345 or permission of the instructor.*

DANC 446. Advanced Jazz. 2 credits. *Offered spring.*
A continuation of the dance technique in the dance program. Advanced skills in jazz technique with special emphasis on the development of performance skills. May be repeated for credit.

DANC 449. The Dance Professional. 3 credits. *Offered fall.*
Introduction to the professional dance world through lectures, discussions and research. Emphasis will be placed on the preparation of skills and materials necessary to pursue dance as a career. Contemporary dance trends and issues will also be explored.

DANC 450. The Open Studio: An Interdisciplinary Approach to Creative Arts. 3 credits. *Offered once every other year.*

Introduction to the interdisciplinary studio through discussion of the history of interdisciplinary art and exposure to contemporary examples from dance, theatre, music, creative writing, visual art, film and video. Emphasis on production of original work that evidences the use of another media or collaborative work by artists from different disciplines. *Prerequisites: Permission of the instructor(s) and advanced skill level in one or more of the creative arts.*

DANC/THEA 471. Stage Management. 3 credits. *Offered once every other year.*
Study and analysis of stage management. Consideration given to the methods and strategies for successful stage management for theatre, dance and other performances. Emphasis on developing management and organizational skills. *Prerequisite: DANC 171.*

DANC 479. Methods of Teaching Dance. 3 credits. *Offered spring.*
An introduction to the theory and practice of teaching dance. Course will provide introductory level teaching experiences and will encourage the development of the student's personal educational philosophy.

DANC 490. Special Studies in Dance. 1-3 credits each semester.
Offered fall and spring.

Designed to give superior students in dance an opportunity to complete independent study and/or research under faculty supervision. May be repeated for credit. *Prerequisite: Permission of the dance program coordinator.*

DANC 495. Internship in Dance. 1-3 credits. *Offered fall and spring.*
A faculty arranged, prepared and monitored internship program designed to provide practical experiences in dance. *Prerequisite: Permission of dance area coordinator.*

DANC 499. Honors. 6 credits. *Offered fall and spring.*
Year course.

Early Childhood Education

College of Education

ECED 371. Practicum in Early Childhood Education. 2 credits.
Preschool and kindergarten placements will provide for extensive observation and experience with young children and the opportunity to assist teachers as they facilitate children's growth and learning in contexts that are culturally varied. *Prerequisite: Admission to teacher education. Corequisites: READ 366 and ECED 372.*

ECED 372. Introduction to Early Childhood Education. 3 credits.

Introductory study of the role of the teacher, the role of the learner and the developing child as the basis for designing programs and developing curriculum for children 0-8 with different abilities and from various cultures. *Prerequisites: Admission to teacher education. Corequisites: READ 366 and ECED 371.*

ECED 401. Problems in Early Childhood Education. 1-3 credits.

Considers current problems and issues in early childhood education. *Prerequisite: Permission of the program coordinator.*

ECED 412. Natural and Social Sciences for Young Children. 3 credits.

Study of content, processes, teaching methods and materials for teaching science and social studies in the early childhood classroom. Knowledge of cognitive development as applied to the selection of content in method will be examined. *Prerequisites: Grades of "C" or better in ECED 371, ECED 372 and READ 366; ECED 441, ECED 443, ELED 444 and READ 436. Corequisite: ECED 461.*

ECED 441. Practicum in Child Development. 1 credit.

This course is a supervised field experience working in an early childhood laboratory classroom with pre-kindergarten age children. It emphasizes applications of age-appropriate guidance strategies for facilitating children's total development, including children with diverse needs. Observational strategies for assessing growth and progress are developed. *Prerequisites: Grades of "C" or better in ECED 371, ECED 372 and READ 366; a current TB test. Corequisites: ECED 442, ECED 443 and READ 436.*

ECED 442. The Young Child. 3 credits.

This course integrates child development knowledge and theories, academic content knowledge, and age/stage appropriate guidance strategies for teaching children pre-kindergarten through grade three. Emphasis on observational/assessment strategies and inquiry processes related to young children's growth and development as a basis for teaching decisions. *Prerequisites: Grades of "C" or better in ECED 371, ECED 372 and READ 366; a current TB test. Corequisites: ECED 441, ECED 443, ELED 444 and READ 436.*

ECED 443. Practicum in Primary Grades. 1 credit.

This two-hour, weekly practicum in first or second grade will provide students with experience in planning and implementing math and literacy experiences for young children. *Prerequisites: Grades of "C" or better in ECED 371, ECED 372 and READ 366. Corequisites: ECED 441, ECED 442; ELED 444 and READ 436.*

ECED 461. Integrated Day Practicum. 3 credits. *Offered fall and spring.*

This all-day, primary-grade practicum allows students to demonstrate their educational decision-making skills through planning, implementing and evaluating appropriate activities for children of diverse interests, needs and abilities. Strategies to assess learning, guide behavior, work with professionals and family involvement are applied in this practicum and accompanying seminar. *Prerequisites: Grades of "C" or better in ECED 361, ECED 372, ECED 441, ECED 442, ECED 443, READ 366, READ 436 and ELED 444, and current TB test. Corequisites: ECED 464, ELED 462.*

ECED 481. Fieldwork in Family and Community. 2 credits. *Offered fall and spring.*

This fieldwork is designed to provide support for students and reinforces skills and concepts learned during the education program which are being applied during student teaching. Particular attention is given to school and family/community unity. *Prerequisite: Grades of "C" or better in ECED 361, ECED 372, ECED 441, ECED 442, ECED 443, ECED 454, ECED 461, READ 366, READ 436, ELED 444 and ELED 462. Corequisite: ECED 480.*

ECED 490. Special Studies in Early Childhood Education. 1-3 credits.

Offered fall and spring.

Designed to give capable students opportunities to complete independent research on educational problems under faculty guidance. The plan for the study must be presented to the department head in prescribed form for approval prior to registration.

ECED 499. Honors in Early Childhood Education. 3 credits. *Offered fall and spring.*

Economics

College of Business

GECON 200. Introduction to Macroeconomics. 3 credits. *Offered fall, spring and summer.*

Behavior of systems at the national and international levels. Topics include the methodology of economics as a social science, supply and demand, definition and measurement of important macroeconomic variables, and theoretical models of growth, inflation, interest rates, unemployment, business cycles, stabilization policy, exchange rates and the balance of payments. Not open to students who are enrolled in or who have received credit for ECON 332.

ECON 201. Principles of Economics (Micro). 3 credits. *Offered fall, spring and summer.*

Topics covered include supply and demand, consumer choice, economics of the firm and industry, production costs, distribution theory, international trade, comparative economic systems, and the philosophy of economics. Not open to students who are enrolled in or who have received credit for ECON 331.

ECON 222. Contemporary Economic Issues and Policy

Alternatives. 3 credits. *Offering to be announced.*

Application of elementary economic theory to current economic issues. Special emphasis is placed on public policy alternatives. *Prerequisites: ECON 201 and GECON 200.*

ECON 270. International Economics. 3 credits. *Offered fall, spring and summer.*

A survey of the relationships among national economies, including trade theory, trade policy, international monetary relations and the balance of payments. Not open to students who are enrolled in or have already received credit in ECON 370 or 372. *Prerequisites: ECON 201 and GECON 200.*

ECON 300. Special Topics in Economics. 3 credits. *Offering to be announced.*

Examination of special topics in theoretical or applied economics not covered in the current economics curriculum. Specific topics to be determined by the instructor. *Prerequisites: GECON 200 and ECON 201 or equivalent.*

ECON 301. Economies in Transition. 3 credits. *Offered spring.*

A study of the evolution and operation of the post-Soviet Union economy. Special emphasis is given to the new independent states and their market reforms and foreign economic policies. *Prerequisites: ECON 201 and GECON 200.*

ECON 302. History of Economic Thought. 3 credits. *Offered spring.*

Major contributions within the history of economic thought are studied in relation to both the historical circumstances within which they arose and the role each played in shaping contemporary, competing economic doctrines. *Prerequisites: ECON 201 and GECON 200.*

ECON 305. Environmental Economics. 3 credits. *Offered fall.*

An analysis of the problems of the environment, their causes and alternative proposed methods of solution. Air and water pollution will be stressed as case studies of environmental problems. *Prerequisite: ECON 201.*

ECON 306. The Economics of Women and The Family. 3 credits.

Offered fall.

Examines facts and theories pertaining to the various economic roles of women in America. The economics of marriage, divorce and childbearing are examined as are empirical and theoretical explanations of occupational and wage differentials between the sexes. *Prerequisite: ECON 201.*

ECON 307. Economics of Aging. 3 credits. *Offering to be announced.*

Application of the theoretical and empirical tools of modern micro- and macro-economics analyses to the circumstances of older people in American society. Among the topics studied are retirement from paid employment, sources and distribution of income among the elderly, and spending patterns of the elderly. The role of public policies like Social Security is an important thread throughout the course. *Prerequisite: Six credits in economics.*

ECON 310. Economic History of the United States. 3 credits. *Offering to be announced.*

A survey of the economic growth and development of the United States from Colonial times to the present. *Prerequisites: ECON 201 and GECON 200.*

ECON 312. Comparative Economic Systems. 3 credits. *Offered fall.*

An examination of the distinguishing characteristics, institutions and performances of the various types of major economic systems in the world today. *Prerequisites: ECON 201 and GECON 200.*

ECON/FIN 325. Money and Banking. 3 credits. *Offered summer.*

Examines the economic role of money, banking and monetary policy within current institutional settings and under alternative theories explaining the interrelationships between money, the financial system and economic activity. *Prerequisites:* ECON 201 and GECON 200.

ECON 326. Public Finance. 3 credits. *Offered fall.*

Introduction to the field of public finance including theories and principles of taxation, government expenditure, public debt and fiscal administration. Studies interrelationships between federal, state and local finance, shifting and incidence of tax, and the burden of public debt. *Prerequisites:* ECON 201 and GECON 200.

ECON 331. Intermediate Microeconomic Theory. 3 credits. *Offered fall and spring.* Intermediate analysis of the determination of price, resource allocation and product distribution in a free enterprise economy. *Prerequisites:* ECON 201, GECON 200, and MATH 205 or MATH 235.

ECON 332. Intermediate Macroeconomic Theory. 3 credits. *Offered fall and spring.*

Intermediate-level analysis of the major approaches to the determination of economic aggregates with emphasis given to structuring a common analytic framework. *Prerequisites:* ECON 201, GECON 200, and MATH 205 or MATH 235.

ECON 340. Economics of Natural Resources. 3 credits. *Offered fall.*

Emphasizes availability of exhaustible resources and optimum utilization rates. Examines questions of intertemporal allocation and costs of growth. *Prerequisites:* ECON 201 and GECON 200.

ECON 345. Industrial Organization. 3 credits. *Offered fall and spring.*

An examination of contemporary U.S. industrial concentration both in the aggregate and within particular industries with emphasis on public policy implications. Alternative theories of the firm are considered in relation to different market structures. *Prerequisites:* ECON 201 and GECON 200.

ECON 360. Labor Economics. 3 credits. *Offered fall.*

Study of the economics of labor markets. Attention is given to the structure and operation of labor markets, wage determination, employment, unions, and contemporary labor problems and policies. *Prerequisites:* ECON 201 and GECON 200.

ECON 365. Economic Development. 3 credits. *Offered fall.*

A study of the characteristics of under-development, theories of economic development and the underlying causes for varying standards of living among the world's people. Considerable time will be spent on studying social and cultural factors that influence economic growth and their potential effect on the economic progress of the less-developed countries. *Prerequisites:* ECON 201 and GECON 200.

ECON 370. International Trade and Trade Policies. 3 credits. *Offered fall.*

An examination of the classical and modern theories of international trade, the effects of such trade on the domestic economy, the effects of barriers to free trade and an appraisal of U.S. commercial policy since 1948. *Prerequisites:* ECON 201 and GECON 200.

ECON/FIN 372. International Finance and Payments. 3 credits.

Offered fall, spring and summer.

Examines international financial markets, instruments and institutions; determination of spot and forward exchange rates, interest arbitrage, hedging and speculation; and alternative policies for achieving equilibrium in international payments. *Prerequisites:* ECON 201 and GECON 200.

ECON 382. Urban Economics. 3 credits. *Offered spring.*

A detailed examination of the economic aspects of urbanization with emphasis on metropolitan land use and location theory. Urban problems considered include housing, poverty, labor markets and municipal finances. *Prerequisites:* ECON 201 and GECON 200.

ECON 385. Econometrics. 3 credits. *Offered fall and spring.*

Course discusses construction of models based on economic theory including identification of variables, development and testing of hypotheses for single- and multi-equation systems. *Prerequisites:* ECON 201, GECON 200, COB 191 or MATH 220, and MATH 205 or MATH 235.

ECON 394. Economics Internship. 3 credits. *Offered fall, spring and summer.*

Academic credit for an approved internship experience. Registration for the course must be concurrent with the internship. An application showing how all requirements for the internship will be met must be approved prior to registration. May be taken on a credit/no credit basis only. *Prerequisites:* ECON 201 and GECON 200.

ECON 400. Advanced Topics in Economics. 3 credits. *Offering to be announced.*

Examination of special topics in theoretical or applied economics not covered in the current economics curriculum. Specific topics to be determined by the instructor. *Prerequisites:* ECON 331 and ECON 332 or permission of instructor.

ECON 401. Senior Assessment in Economics. 0 credits. *Offered fall and spring.*

Students participate in testing, interviews and other assessment activities as approved by the economics program. Grades will be assigned on a credit/no-credit basis. *Prerequisites:* ECON 331, ECON 332, ECON 385 and senior standing.

ECON 405. Political Economy. 3 credits. *Offered spring.*

Evaluation and critique of mainstream and nontraditional economic paradigms. The interaction of economics and politics in the United States as it affects the distribution of wealth and domestic and international economic policies. *Prerequisites:* ECON 201, GECON 200, and junior or senior standing.

ECON 426. Theory of Public Choice. 3 credits. *Offered spring.*

Examines the justification for and nature of public sector activity in a market-based mixed economy. Emphasis is placed on theories of market failure, voting models, conditions of production and provision in the public sector, and models of bureaucratic behavior. *Prerequisite:* ECON 326 or ECON 331.

ECON 430. Monetary Theory. 3 credits. *Offered spring.*

Examines alternative theories of the relationships between money, interest rates, price levels, employment and output in order to assess the effectiveness of monetary policy for economic stabilization. *Prerequisites:* ECON 332 and either MATH 205 or MATH 235.

ECON 431. Advanced Microeconomic Theory. 3 credits. *Offered fall.*

Examines theories of general equilibrium and the distribution of income, welfare economics, capital theory and information theory. *Prerequisites:* ECON 331, ECON 332 and either MATH 205 or MATH 235.

ECON 432. Advanced Macroeconomics. 3 credits. *Offered fall.*

Study of macroeconomics at an advanced level. Topics will normally include, but are not limited to, long-run models of economic growth and short-run models of economic fluctuations. Alternative policies for improving economic performance will be identified and evaluated. *Prerequisites:* ECON 332, and MATH 205 or MATH 235.

ECON 455. Economics of Regulated Industries. 3 credits. *Offered fall.*

A study of the rationale, methods and impact on industry behavior of government regulations including public utility regulation and antitrust policies relating to monopoly and competition in the United States. *Prerequisite:* ECON 331 or ECON 345. *Prerequisite or corequisite:* ECON 385.

ECON 460. Human Resources. 3 credits. *Offered fall.*

Examines the role of education and training in enhancing productive skills, employment opportunities and income. Also focuses on American employment and health and welfare policies that relate to the labor market, giving attention to empirical studies. *Prerequisite:* ECON 306, ECON 331, ECON 332 or ECON 360.

ECON 475. Regional Economics. 3 credits. *Offered spring.*

A study of local and subnational economics viewed as integral parts of a unified system. Emphasis will be given to the basic economic forces associated with regional growth and decline and related public policy considerations. *Prerequisite:* ECON 200 and ECON 201.

ECON 484. Mathematical Economics. 3 credits. *Offering to be announced.*

Course employs techniques of differentiation and integration for microeconomic and macroeconomic analysis at the intermediate level. *Prerequisites:* ECON 331, ECON 332, and MATH 205 or MATH 235.

ECON 485. Advanced Econometrics. 3 credits. *Offered spring.*

Theory and application of statistical techniques to study empirical relationships among economic variables. Students will use econometrics to develop forecasts of economic activity, to estimate limited dependent variable and simultaneous equation models, and to model various time-series processes. *Prerequisite:* ECON 385.

ECON 487. Economic Consulting. 3 credits. *Offered fall.*

A research-oriented, senior-level course that provides students an opportunity to integrate theoretical knowledge, quantitative techniques and writing skills through research on a set of simulated consulting projects. *Prerequisites:* ECON 331, ECON 332, ECON 385 and senior standing.

ECON 488. Senior Capstone Seminar. 3 credits. *Offered fall and spring.*

This course is a writing-intensive seminar offering a student the opportunity to integrate many of his/her undergraduate studies in economics. Its substantive content will emphasize applying the methods of theoretical

and empirical analyses employed by all economists. The seminar will be structured so as to contain embedded assessment measures of the learning objectives specified by the department of economics, including those related to command of basic economic theory and of quantitative methods used in quantifying empirical relationships and testing hypothesis. *Prerequisites: Senior standing and completion of each of the following courses with a grade of at least "C": ECON 331, ECON 332 and ECON 385.*

ECON 490. Special Studies in Economics. 1-3 credits each semester.

Offered fall, spring and summer.

Designed to give capable students in economics an opportunity to complete independent study under faculty supervision. Admission by recommendation of the instructor and written permission of the director of economics prior to registration. May not be used toward fulfillment of the 400-level requirement for a major in economics.

ECON 499. Honors. Year course. 6 credits. *Offered fall and spring.*

See catalog description entitled "Graduation with Distinction" and "Graduation with Honors."

Education

College of Education

EDUC 100. The Study of the Future: An Interdisciplinary Approach. 3 credits.

Introduces the students to an interdisciplinary study of the future within the context of education. Various topic areas, such as population, science/technology, lifestyle, economics, international relations, energy and religion will be explored in terms of future trends and how education responds to these trends and their impacts.

EDUC 150. Information in Contemporary Society. 3 credits.

Concerns the individual's need for information, especially that which will assist in solving problems related to everyday needs and interests and with the agencies and resources which can help to meet those needs. Will not count as social science course for teacher licensure.

EDUC 310. Teaching in a Diverse Society. 3 credits.

This course will examine how personal and professional values, attitudes, beliefs and behaviors affect teaching and learning. The pre-service teachers will develop an understanding of similar and unique characteristics of students in grades 6-12, including culture, heritage, language and learning abilities. *Corequisites: MIED 311 and READ 312 for middle students. EDUC 312 for special education students.*

EDUC/EXED 312. Field Experience in Special Education and Diversity. 1 credit.

Students devote 30 clock hours to activities in school and nonschool settings that emphasize diversity of individuals and families. *Corequisite: EDUC 310.*

EDUC 332. Single Camera TV Operation. 1 credit.

A basic understanding of the principles of video equipment along with skills in the use, set up and operation of one-half inch portable videocassette systems.

EDUC 336. Photography in Education. 1 credit.

An introduction to the use and operation of 35mm SLR cameras. Note: All needed equipment will be supplied.

EDUC 339. Production of Computer-based Materials for Education. 1 credit.

Creating educational material in a variety of media for computer-based presentations. Principles of creating visual messages will be examined.

EDUC 360. Foundations of American Education. 3 credits.

A study of the practices and issues that affect American education. Consideration is given to such topics as philosophical approaches to education, history of American education, and the organizational and cultural aspects of schools which influence educational practices.

EDUC 370. Instructional Technology. 3 credits.

Principles and procedures of a teaching/learning process designed to provide reliable, effective instruction to learners through systematic application of instructional technology. Includes selecting, producing, evaluating and utilizing nonprint media and equipment for application to instructional process.

EDUC 375. Selected Topics in Media. 1-2 credits.

An in-depth study of a narrowly defined topic or practice in media. May be repeated for credit when course content changes.

EDUC 381. Field Experience in English as a Second Language. 3 credits.

The course provides supervised field experiences in working with English as a Second Language students, NK-12. Preservice teachers will demonstrate competencies developed in the English as a Second Language endorsement program and in consultation with a field supervisor. *Prerequisite: Completion of ESL minor requirements.*

EDUC 401. Problems in Education. 1-3 credits.

Workshop experiences for the development and training of teachers. *Prerequisites: EDUC 360 and permission of the program coordinator.*

EDUC 416. School Discipline and Classroom Management. 1 credit. Theory and practices in classroom management and discipline, including specific models and the various legal aspects will be examined.

EDUC 430. General Education Curriculum K-12 Overview. 1 credit.

This course will provide an overview of curriculum in grades K-12. An understanding of objectives, content, materials and trends associated with curriculum will be addressed. *Corequisites: READ 430, MIED 530 and SPED 410.*

EDUC 480. Student Teaching. 3-12 credits.

Enables students to apply, in the public school classrooms and the comprehensive child development programs, those skills and attitudes acquired in all components of teacher education. Under the guidance of university supervisors, students are provided activities designed to familiarize them with the classroom teacher's role. *Prerequisites: GPSYC 160, PSYC 270, EDUC 360, appropriate methods courses and permission of the coordinator of field experiences.*

EDUC 490. Special Topics in Education. 3 credits.

In-depth examination of selected topics which are of current importance in the field of education. Offered only with approval of School of Education director. May be repeated for credit when course content changes. *Prerequisites: At least junior standing and consent of the instructor.*

EDUC 499. Honors. 3-6 credits.

Independent research topic initiated and completed by qualified upper-division students. See catalog sections entitled "Graduation with Distinction" and "Graduation with Honors."

Elementary Education

College of Education

ELED 308. Child Development: Birth Through Adolescence. 3 credits.

Skills for observing, recording and interpreting the behavior of children ages three through 12 will be developed so that adult intervention and guidance is appropriate and meaningful. *Prerequisites: GPSYC 160 and admission to teacher education. Corequisites: ELED 309, ELED 310, ELED 311 and READ 366.*

ELED 309. Learning and Teaching in the Elementary School. 3 credits.

This course provides pre-service teachers with an introduction to learning and teaching processes. Factors affecting learning and the discoveries from brain research set the stage for decisions teachers make about instruction. Models of instruction, active engagement, creating a climate for learning and appropriate planning, implementation and reflection will foster the development of teachers. Throughout the course, issues of age, culture, learning preferences and ability will be presented. *Prerequisite: Admission to teacher education. Corequisites: ELED 308, ELED 310, ELED 311 and READ 366.*

ELED 310. Diversity in Elementary Education with Service Learning. 3 credits.

This course guides students in critically examining their own perspectives regarding diversity in our society. Through this course, students will expand their awareness and understanding of individuals and groups apparently different from themselves. Students will explore pedagogical issues and practices in the classroom that embrace the whole community of learners and their families. *Prerequisite: Admission to teacher education. Corequisites: ECED 372, ELED 308, ELED 311 and READ 366.*

ELED 311. Practicum with a Focus on Learners and Learning. 3 credits.

This field experience and seminar support the study of child development and learning in an organized environment. Through direct observation and interactions with children in a classroom setting, candidates will examine and reflect on how children develop and learn. Candidates will explore how their own personal attitudes, assumptions and behaviors toward students and their families are influenced by class, cultural and linguistic backgrounds. *Prerequisite: Admission to teacher education. Corequisites: ECED 372, ELED 308, ELED 310 and READ 366.*

ELED 411. Practicum with a Focus on Curriculum Connections. 3 credits.

This field experience provides candidates with a classroom of students and a mentor teacher with whom to practice the teaching of reading, math, science and social studies. The accompanying seminar explores the integration and construction of meaningful curriculum in elementary education contexts and supports students in their ongoing professional development. *Prerequisite: ELED 311. Corequisites: READ 436, ELED 432, ELED 433 and ELED 434.*

ELED 432. Children and Science. 3 credits.

This course is a study of content, processes, pedagogy and materials for teaching science in the elementary classroom. Knowledge of cognitive development as applied to the selection of content and methodology for elementary learners will be examined. *Prerequisites: ELED 308, ELED 309, ELED 310, ELED 311 and READ 366. Corequisites: READ 436, ELED 411, ELED 433 and ELED 434.*

ELED 433. Children and Mathematics: Number, Operations, Algebraic and Geometric Reasoning. 3 credits.

The first of two courses that provides students with knowledge, skills and understanding of design and implement for effective, developmentally appropriate mathematics instruction for grades PreK-6. Emphasis is on children's mathematical learning and pre-numerical stages through the acquisition of advanced numerical processes and operations and connections to geometric and algebraic reasoning. *Prerequisites: MATH 107, MATH 108, MATH 207 and READ 366. Corequisites: READ 436, ELED 411, ELED 432 and ELED 434.*

ELED 434. Children and Social Studies. 3 credits.

This course focuses on the content, processes, pedagogy and materials for teaching social studies in the elementary classroom. Knowledge of cognitive development as applied to the selection of content, methods, and materials and strategies for organizing the learning environment for elementary learners will be examined. *Prerequisites: ECED 372, ELED 308, ELED 310, ELED 311 and READ 366. Corequisites: ELED 411, ELED 432, ELED 433 and READ 436.*

ELED 490. Special Studies in Elementary Education. 1-3 credits.

Designed to give students opportunities to complete independent research on educational problems under faculty guidance. The plan for the study must be presented to the department head in prescribed form for approval prior to registration.

Engineering

School of Engineering**ENGR 112. Introduction to Engineering (1,2).** 3 credits.

ENGR 112 is the first course in the engineering curriculum; its purpose is to introduce students to some of the over-arching themes and culture in engineering and in our curriculum. Topics of coverage include professionalism, engineering and society, sustainable development, engineering fundamentals, systems approach in engineering problem solving, as well as creative problem solving practices. *Prerequisites: MATH 235, PHYS 240 and PHYS 140L.*

ENGR 212. Statics and Dynamics (3,1). 4 credits.

ENGR 212 provides the fundamental and governing principles of particles and rigid bodies for the analysis of these structures at rest (statics) and in motion (dynamics). Topics will include equilibrium of particles and rigid bodies, force and moment vectors, moments of inertia, kinematics of particles, work, and energy. *Prerequisites: ENGR 112, PHYS 240 and PHYS 140L. Corequisite: MATH 238.*

ENGR 221. Management of Technology I: Systems Analysis and Project Management. 3 credits.

ENGR 221 is the first of a two-course sequence introducing students to management of technology. The course will include general business functions (management, marketing, finance, accounting, and operations); systems analysis skills; and project management skills. Students will develop an understanding and appreciation for the importance of technology and innovation in organizations. *Prerequisite: ENGR 112.*

ENGR 231. Engineering Design I. 1 credit.

ENGR 231 is the first of six courses in the engineering design sequence. This course provides students with an overview of sustainable engineering design including history, concepts, and practices; and an introduction to cognitive processes and interpersonal communication skills that lead to effective problem solving, idea generation, and decision making; and basic technical design skills. *Prerequisite: ENGR 112.*

ENGR 232. Engineering Design II. 1 credit.

ENGR 232 is the second course in the engineering design sequence. This course provides instruction in sustainable engineering design concepts and hands-on practice; individual cognitive processes, thinking and communication skills, and decision making; introduction to sustainability contexts (environmental, social, economic, and technical); and technical project design skills. *Prerequisite: ENGR 231.*

English

Department of English**GENG 235. Survey of English Literature: From Beowulf to the 18th Century.** 3 credits. *Offered fall and spring.*

A general survey presented chronologically.

GENG 236. Survey of English Literature: 18th Century to Modern. 3 credits. *Offered fall and spring.*

A general survey presented chronologically.

GENG 239. Studies in World Literature. 3 credits. *Offered fall and spring.*

Introduction to masterpieces of world literature with emphasis on non-Western literature. (May be focused regionally or topically.)

GENG 247. Survey of American Literature: From the Beginning to the Civil War. 3 credits. *Offered fall and spring.*

A general survey presented chronologically.

GENG 248. Survey of American Literature: From the Civil War to the Modern Period. 3 credits. *Offered fall and spring.*

A general survey presented chronologically.

GENG 260. Survey of African-American Literature. 3 credits. *Offered fall and spring.*

Survey of literature by African-American authors from the 18th century to the present.

ENGR/WRTC 290. Intermediate Composition. 3 credits. *Offered fall and spring.*

This course stresses the argumentative and persuasive essay as well as grammar and usage.

ENG 293. Exploring Careers in English. 2 credits.

An introduction to academic and career opportunities in English. Students will research and shape academic and career interests, with particular attention to articulating the relationship between the reading, writing and analytical skills they develop as majors and their long-term career plans. Does not count as an English elective.

ENG 294. Internship in English. 1-3 credits. *Offered fall and spring.*

Provides English majors with work experience in career fields they are interested in pursuing. A journal, internship report, research paper, bibliography and evaluation from the intern provider are required. *Prerequisites: Major or minor status and approval of the internship director. Does not count as an English elective.*

ENG 299. Writing About Literature. 3 credits. *Offered fall and spring.*

This course will provide students with the skills and knowledge necessary for interpreting, researching and writing about literature. Students will learn basic literary terms, acquire an understanding of canon formation and transformation, and gain a knowledge of literary theories. Fulfills the College of Arts and Letters writing-intensive requirement for the major. *Prerequisite: Declared English major.*

ENG 302. Special Topics in Literature and Language. 3 credits.

Offered fall and spring.

Study of a particular literary or linguistics topic. May be repeated for credit when course content changes but not more than once, except with the approval of the department head.

ENG 304. Modern Literature and Religion. 3 credits.

Using a variety of readings, this course explores 20th-century literary perspectives on the religious and literary culture of the western traditions. Genre, readings and emphasis may vary with the instructor.

ENG 305. Mythology. 3 credits.

Study of the nature and meaning of Greek myths as interpreted and reinterpreted in significant works of ancient and modern literature.

ENG 306. The Bible as Literature. 3 credits.

Study of Hebrew and Christian scripture as literary and cultural texts which have influenced subsequent literature and culture.

ENG 307. Literature and Psychology: A Psychoanalytical Approach to Literary Readings. 3 credits.

This course will study the works of World Literature authors from the perspective of psychoanalysis.

ENG 311. Medieval Literature and Culture. 3 credits.

An introduction to the literature and culture of the Middle Ages through selected Old English, Norse/Icelandic, Middle English, Old Irish, French, German, Latin and Arabic texts in translation.

ENG 312. Special Topics in Medieval Literature. 3 credits.

Studies in medieval literature. May be organized by theme, genre, geography or date and may focus on cultural context and critical or theoretical issues. May be repeated for credit when course content changes.

ENG 313. Poetry and Prose of the Early British Renaissance. 3 credits.

Chief poets and prose writers of the early British Renaissance, including Skelton, More, Sidney, Spenser, Marlowe and Shakespeare.

ENG 314. 17th-Century British Literature. 3 credits.

Chief prose writers of the 17th century, including such writers as Bacon, Burton, Browne, Walton, Hobbes, Dryden and Pepys.

ENG 315. 17th-Century British Poetry. 3 credits.

Chief poets of the 17th century from Donne to the Restoration.

ENG 316. Renaissance and 17th-Century British Drama. 3 credits.

Major works of British dramatists, excluding Shakespeare, from 1500-1660.

ENG 321. Restoration and 18th-Century British Prose and Poetry. 3 credits.

A study of the poetry and prose (other than the novel) from the Age of Satire, including works by Dryden, Swift, Pope and Johnson.

ENG 322. Restoration and 18th-Century British Drama. 3 credits.

Dramatists from Dryden and Wycherley to Goldsmith and Sheridan.

ENG 323. 18th-Century British Novel. 3 credits.

A study of the rise and development of the novel in England during the 18th century.

ENG 325. Romantic Poetry. 3 credits.

A study emphasizing selected works of major Romantic poets. Attention given to critical theories, intellectual and cultural movements and poetic forms.

ENG 326. Romantic Era Prose. 3 credits.

A study of British literature written during the Romantic period, 1789-1832, with primary emphasis on prose, including the essay, memoir and/or the novel.

ENG 327. The Gothic: Change and Continuity. 3 credits.

A study of the origins, influence and transformations of Gothic fiction from the 18th century to the present, with emphasis on the literary uses of the supernatural.

ENG 329. Victorian Literature. 3 credits.

Study of British literature of the Victorian period with primary emphasis on poetry and nonfiction prose.

ENG 330. The 19th-Century English Novel. 3 credits.

The development of the English novel in the 19th century and the study of representative works.

ENG 331. Modern Poetry. 3 credits.

British and American poetry from 1900 to 1945.

ENG 332. Contemporary Poetry. 3 credits.

British and American poetry from 1945 to the present.

ENG 333. Modern Drama. 3 credits.

Drama from 1900 to 1960.

ENG 334. Contemporary Drama. 3 credits.

Drama from 1960 to the present.

ENG 340. Modern British Novel. 3 credits.

The British novel from 1900 to 1945.

ENG 341. Contemporary British Novel. 3 credits.

The British novel from 1945 to the present.

ENG 342. Early American Literature. 3 credits.

Significant genres, writers and literary movements of the 17th and 18th centuries.

ENG 343. Writers of the American Renaissance. 3 credits.

Selected works of major figures such as Emerson, Thoreau, Hawthorne, Poe, Melville and Whitman.

ENG 344. American Realism and Naturalism. 3 credits.

Selected works of major figures such as Dickinson, Twain, Howells, James, Crane, Norris and Dreiser.

ENG/THEA 347. Playwriting. 3 credits.

Study of the process of writing plays. Consideration of plot, character, thematic material, conflict and dramatic structure. Emphasis on individual writing assignments.

ENG 352. The American Novel to 1914. 3 credits.

A study of the development of the American novel from its beginnings to the modern period.

ENG 355. Southern Literature. 3 credits.

Southern authors, especially those of the 20th century.

ENG 356. Modern American Novel. 3 credits.

The American novel from 1914 to 1945.

ENG 357. Contemporary American Fiction. 3 credits.

A study of contemporary American novels and short stories written since 1945 with emphasis on current fiction. May be repeated for credit when course content changes.

ENG 358. Oral Literature. 3 credits.

This course is a study of oral literature which may be organized by theme, geography or genre. The course examines the social, political and artistic reasons for the creation and popularity of this literature. May be repeated for credit when course content changes.

ENG 361. African American Fiction Writers. 3 credits.

Selected works of fiction by major African-American writers of the 20th century.

ENG 362. African American Poets. 3 credits.

Selected works of poetry by major African-American writers of the 20th century. May be repeated for credit when course content changes.

ENG/WMST 367. Women's Poetry. 3 credits.

A study of poetry by women.

ENG/WMST 368. Women's Fiction. 3 credits.

A study of novels and short stories by women.

ENG/WMST 370. Exploring Gay and Lesbian Literature. 3 credits.

An exploration of texts and issues in literature written by and about gay and lesbian writers, including critical and theoretical issues as well as questions of canon. Texts studied may include fiction, poetry, drama, essays and memoirs written primarily, but not exclusively, in the 20th century.

ENG 371. Literature and the Environment. 3 credits.

A critical examination of literature's representation of the interconnections between human beings, non-human beings and the environment.

ENG 374. Introduction to Anglo-Irish Literature. 3 credits.

Selected writings in English by outstanding Irish poets, playwrights and novelists.

ENG 375. Studies in Anglo-Irish Literature. 3 credits.

Study of the works of one or more Anglo-Irish writers.

ENG 381. An Introduction to Film to 1960. 3 credits. *Offered fall.*

An analysis of film from its beginnings to the modernism of the 1950s and early 1960s.

ENG 382. An Introduction to Film Since 1960. 3 credits.

An analysis of world cinema from early modernism through the present.

ENG 383. Major Film Genres. 3 credits. *Offered spring odd years.*

The literary and critical study of film genres.

ENG 384. Major Film Directors. 3 credits. *Offered spring even years.*

Literary or critical study of several major directors.

ENG 391. Introduction to Creative Writing—Nonfiction. 3 credits.

Offered fall and spring.

A basic workshop in reading and writing works of creative nonfiction.

ENG 392. Introduction to Creative Writing – Poetry. 3 credits. *Offered*

fall and spring.

A basic workshop in reading and writing poetry.

ENG 393. Introduction to Creative Writing – Fiction. 3 credits. *Offered*

fall and spring.

A basic workshop in reading and writing fiction. May be repeated for credit when course content changes.

ENG/WRTC 396. Advanced Composition. 3 credits. *Offered fall and spring.*
Extensive exercises in expository writing, with emphasis on rhetorical types of composition, designed to develop sophistication of style in the student's writing.

ENG 410. Major Author. 3 credits. *Offered fall and spring.*
Study of the works of one or more major British or American authors. May be repeated for credit when course content changes; credit may not be earned in both ENG 410 and ENG 510 unless course content changes.

ENG 412. Special Topic Seminar. 3 credits. *Offered fall and spring.*
Study of a literary school, movement, genre or some other significant literary or linguistic topic. May be repeated for credit when course content changes; credit may not be earned in both ENG 412 and ENG 512 unless course content changes.

ENG 416. Old English Language and Literature. 3 credits.
An introduction to the Old English language through selected readings in poetry and prose. Credit may not be earned in both ENG 416 and ENG 503.

ENG 418. English Linguistics. 3 credits.
Introduction to English linguistics including sociolinguistics and psycholinguistics.

ENG 419. History of the English Language. 3 credits.
Introduction to the historical study of English including its Indo-European origins. May be repeated for credit when course content changes.

ENG 421. Traditional English Grammar. 3 credits.
Introduction to traditional grammar, probing its logic, system and history, with an examination of modern applications of conventional rules.

ENG 422. Modern English Grammar. 3 credits.
Introduction to modern English grammar with attention to the structure of the English language from a modern linguistic perspective.

ENG 425. Survey of Literary Criticism to 1950. 3 credits.
Survey of the nature, function and development of literary criticism from Aristotle to Eliot. Credit may not be earned in for both ENG 425 and ENG 508.

ENG 426. Contemporary Practices in Literary Criticism. 3 credits.
Study of the major debates in current critical discourse. Credit may not be earned for both ENG 426 and ENG 509.

ENG 427. Studies in South Asian Literature. 3 credits.
A study of selected works of South Asian literature.

ENG 429. Postcolonialism. 3 credits.
Study of selected works of postcolonial literature. *Prerequisite: Completion of ENG 299 for English majors.*

ENG 430. Studies in Comparative Literature. 3 credits.
Comparative study of selected world literature.

ENG 431. Studies in Caribbean Literature. 3 credits.
A survey of the literary achievement of novelists, poets and dramatists of the Caribbean.

ENG 432. Studies in African Literature. 3 credits.
A study of selected works by African writers focused by theme, geography or genre. May be repeated for credit when course content changes.

ENG 433. Studies in Arabic Literature. 3 credits.
A study of Arabic writers. May be repeated for credit when content varies.

ENG/SPAN 434. Latin American Literature in Translation. 3 credits.
This course will study Latin American literature in translation. The course will focus on the work of major Spanish-American authors.

ENG/FR 435. Studies in French Literature. 3 credits.
A study of selected works of French literature. Instruction is in English. May be repeated for credit when course content changes.

ENG/GER 436. Studies in German Literature. 3 credits.
A study of selected works of German literature. Instruction is in English. May be repeated for credit when course content changes.

ENG/ITAL 437. Studies in Italian Literature. 3 credits.
A study of selected works of Italian literature. Instruction is in English. May be repeated for credit when course content changes.

ENG/RUS 438. Studies in Russian Literature. 3 credits.
A study of selected works of Russian literature. Instruction is in English. May be repeated for credit when course content changes.

ENG/SPAN 439. Major Authors of Literature in Spanish in Translation. 3 credits.

This course will study the work of both Peninsular and Latin American authors in translation. The course will focus on major Spanish-speaking authors and their work, both in Latin America and in Spain.

ENG 440. Texts for Teachers I. 3 credits.
An examination of selected poems and plays of particular relevance to students enrolled in the secondary education pre-professional licensure program. (This course satisfies the genre requirement for the pre-professional licensure program.)

ENG 441. Texts for Teachers II. 3 credits.
An examination of selected fiction and non-fiction of particular relevance to students enrolled in the secondary education pre-professional licensure program. (This course satisfies the period requirement for the pre-professional licensure program.)

ENG/THEA 447. Advanced Playwriting. 3 credits.
An advanced workshop with emphasis on developing full-length dramatic material. *Prerequisite: ENG/THEA 347.*

ENG 450. The Open Studio: An Interdisciplinary Approach to Creative Arts. 3 credits.

Introduction to the interdisciplinary studio through discussion of the history of interdisciplinary art and exposure to contemporary examples from dance, theatre, music, creative writing, visual art, film and video. Emphasis on production of original work that evidences the use of another media or collaborative work by artists from different disciplines. *Prerequisites: Permission of the instructor(s) and advanced skill level in one or more of the creative arts.*

ENG 451. Chaucer. 3 credits.
The Canterbury Tales and other major works of Chaucer.

ENG 456. Shakespeare's Tragedies and Romances. 3 credits.
A study of selected tragedies and romances; nondramatic work may be considered.

ENG 457. Shakespeare's Comedies and Histories. 3 credits.
A study of selected comedies and histories; nondramatic work may be considered.

ENG 458. Shakespeare on the Page and Stage in London. 3 credits.
Students will study the plays of Shakespeare currently in production in London and England with special emphasis on the productions of the Royal Shakespeare Company and the National Theatre. Course can be substituted for either ENG 456 or ENG 457 but may not be taken for credit in addition to both.

ENG 461. Milton. 3 credits.
Major prose and poetical works of John Milton with special emphasis on Paradise Lost.

ENG/WMST 466. Studies in Women's Literature. 3 credits.
Advanced study of women's literary achievements in several cultural and historical contexts. May be focused by theme. *Prerequisite: ENG 367 or ENG 368.*

ENG 467. Feminist Literary Theory. 3 credits.
An intensive study of a variety of feminist critical approaches and their applications to literature. *Prerequisite: ENG 367 or ENG 368.*

ENG 471. Ecocriticism and Environmental Ethics. 3 credits.
This course will examine ecocriticism, which investigates the interconnections between language, literature, ethics and the environment. A further exploration of environmental ethics will allow students to identify ideas about the purpose and appropriate use of landscape, wilderness and animals.

ENG 483. Narrative Form. 3 credits.
The study, development and practice of narrative craft. *Prerequisite: ENG 393 or permission of the instructor.*

ENG 484. Poetic Craft and Creativity. 3 credits.
The study, development and practice of poetic craft. *Prerequisite: ENG 392 or permission of the instructor.*

ENG 490. Special Studies in English. 3 credits.
Independent study for students with high academic standing. Students may select work in (1) a literary type, period or author; (2) imaginative writing; or (3) linguistics. Approval of department head required; may be repeated for credit when course content changes.

ENG 493. Creative Nonfiction. 3 credits.
The writing of nonfiction narratives as a creative art. *Prerequisite: ENG 393, ENG 396 or instructor's permission.*

ENG 494. Advanced Poetry Writing. 3 credits.

An advanced workshop with emphasis on developing sound poetic form, voice and vision. *Prerequisite: ENG 392 or permission of the instructor.*

ENG 495. Advanced Fiction Writing. 3 credits.

An advanced workshop with emphasis on developing sound narrative prose form, style and vision. May be repeated for credit when course content changes. *Prerequisite: ENG 393 or permission of instructor.*

ENG 496. Advanced Topics in Creative Writing. 3 credits.

Study of a specific and concentrated aspect of creative writing. Topics will vary semester to semester. May be repeated for credit when the topic changes. *Prerequisite: ENG 392 or ENG 393.*

ENG 499. Honors. 6 credits.

Year course.

Environment

Cross Disciplinary Studies

ENVT 200. Environmental Systems Theory. 3 credits. *Offered every other fall.* Explores three aspects of understanding the environment. First, the kind of problem the environment is and the thinking strategies that will best yield insights and understanding. Second, how humans create and/or respond to environmental issues and crises. Third, examination of past environmental changes and how humans have been affected by and responded to those changes. Final synthesis explores what we can and cannot do practically to respond to future changes. *Does not satisfy elective credit or count as credit for the environmental management or environmental studies minor for geology or earth science majors.*

ENVT 400. Capstone Seminar in Environmental Problem Solving.

3 credits. *Offered fall and spring.*

Integrates perspectives from three environment programs: environmental management, environmental science and environmental studies. The course is team taught using a case-study approach to environmental issues, emphasizing teamwork and student initiative. Topics vary. *Prerequisites: Completion of 15 hours in declared environment minor or permission of instructor. Students wishing to complete more than one of the environmental minors (environmental studies, environmental science, environmental management) may receive dual credit for ENVT 400.*

Environmental Management

College of Integrated Science and Technology

ENVM 480. Selected Topics in Environmental Management.

1-4 credits. *Offered by arrangement.*

Topics in environmental management which are of interest to the upper-division student but not otherwise covered in the regular course offerings. Offered only with the approval of the director. May be repeated for credit when course content changes. Students should consult the instructor prior to enrolling. *Prerequisite: Junior or senior standing in environmental management program. Topic selected may dictate additional prerequisites.*

ENVM 490. Environmental Management Seminar. 2 credits. *Offered by arrangement.*

A literature-based seminar in environmental management, this course emphasizes student investigation and research, presentation and discussion. *Prerequisite: Senior standing in environmental management program.*

ENVM 491, 492. Senior Thesis/Project I & II. 3 credits each. *Offered by arrangement.*

In this two-course sequence, the student performs an independent research and/or engineering project to identify and analyze an environmental management problem and develop a practical solution. May be taken to satisfy the requirements set forth by the Honors program. *Prerequisite: Senior standing in environmental management program.*

Exceptional Education

College of Education

EXED 200. Nature and Issues of Disabilities. 3 credits.

The nature, needs and problems of exceptional children and how these relate to educational provisions are studied. The status of the disabled in society will be emphasized. Federal and state laws ensuring the rights of the disabled will be stressed.

EXED 202. Field Experiences in Special Education. 3 credits.

Provides students with supervised experiences with persons with disabilities. Placements are made in various settings including schools, institutions and recreational programs. *Prerequisite: EXED 200 or permission of the instructor.*

EXED 300. Educational Technology for Students with Disabilities. 1 credit.

An introduction to instructional technology for persons with disabilities. The role of assistive technology in the educational process is investigated. Students are exposed to a variety of instructional programs and equipment. Federal and state guidelines, interdisciplinary team functioning, and program, as well as equipment selection, are addressed. *Prerequisite: Teaching and non-teaching minors only.*

EXED 302. Mentoring Children and Youth with Mild Disabilities. 2 credits.

The course will provide students with the knowledge and skills to engage in mentoring of children and youth with learning disabilities and attentional disorders. Students will focus on increasing their understanding of self awareness related to living with a disability, effective compensatory learning strategies and self advocacy skills. *Prerequisite: Because of the purpose of this course is to increase self awareness and mentoring skills related to understanding disabilities, it is open only to students who are registered with the Office of Disability Services.*

EXED 306. Lifespan Issues for Individuals with Disabilities. 3 credits.

This course examines how issues such as legal mandates and policies, self advocacy, family involvement, educational services, transition, and interagency collaboration impact individuals with disabilities and their families from birth through postsecondary life. The students will be challenged to compare and analyze needs and services available and accessed by individuals with disabilities. *Prerequisite: For special education non-teaching minors only.*

EXED 310. Survey of Emotional/Behavioral Disorders. 2 credits.

A detailed study of the characteristics, diagnosis, treatment, assessment and education of individuals with emotional/behavioral disorders. Medical, psychological, behavioral and environmental causes are presented as well as therapeutic interventions, educational resources and instructional strategies. *Prerequisite: EXED 200 or permission of the instructor.*

EXED 312. Field Experience in Special Education and Diversity. 1 credit.

Students devote 30 clock hours to activities in school and nonschool settings that emphasize diversity of individuals and families. *Prerequisite: Teaching and non-teaching minors only; Corequisite: EDUC 310.*

EXED 320. Survey of Learning Disabilities. 2 credits.

A detailed study of the theories, characteristics, etiology and needs of individuals with learning disabilities including ADHD. Focus will be on causation and terminology as well as historical perspectives and current trends related to practices in identification and treatment of learning disabilities. *Prerequisite: EXED 200 or permission of the instructor.*

EXED 330. Survey of Mental Retardation. 2 credits.

A detailed study of the characteristics, diagnosis, treatment and education of individuals with mental retardation. Medical aspects and implications for support needs are addressed as well as educational settings, resources and instructional techniques designed to facilitate integration for individuals with mental retardation. *Prerequisite: EXED 200 or permission of the instructor.*

EXED 340. Classroom Observations in Special Education. 1 credit.

This practicum experience will provide an opportunity to observe the learning and behavioral characteristics of students with learning disabilities, mental retardation and emotional disturbance in various educational settings. *Prerequisite: Teaching licensure students only; corequisites: EXED 310, EXED 320 and EXED 330.*

EXED 341. Characteristics of High-Incidence Disabilities. 4 credits.

A detailed study of the definitions, characteristics, and learning and behavioral supports needed for students with high-incidence disabilities who are accessing the general education curriculum, including but not limited to students with learning disabilities, emotional disturbance, mental retardation, developmental delay, autism, other health impairment, traumatic brain injury and multiple disabilities. Content will include age span and developmental issues, emotional and behavioral adjustment, social development, language, development, cognitive functioning, medical aspects, and cultural/ethnic and socioeconomic factors impacting individuals with disabilities. *Prerequisites: EXED 200, EDUC 310, EDUC 360.*

EXED 350. Psychoeducational Assessment of Learning and Behavior Problems. 3 credits.

A detailed study of psychoeducational assessment procedures and instruments for eligibility, instructional planning and evaluation for students with mental retardation, learning disabilities and emotional disturbance. The course emphasizes skills in administering formal and informal instruments, interpreting results and using assessment data for decision making in educational planning, delivery and monitoring. *Prerequisite: EXED 341.*

EXED 375. Overview Study of Autism Spectrum Disorders. 3 credits.

This course is designed to provide an overview of the current issues involved in working with children who have been identified as having an autism spectrum disorder. Areas addressed will include learning characteristics, current research and factors involved with causation, assessment and diagnosis. We will discuss positive behavioral supports; social skills development; sensory processing, motor planning and sensory integration; and communication and language development. We will review current research related to the evaluation, planning, instruction and supports for students with a disability on the autism spectrum. A range of institutional methodologies and techniques will be emphasized throughout the course.

EXED 401. Issues in Exceptional Education. 1-3 credits.

Considers current problems and issues in special education as they relate to the professional education of teachers.

EXED 416. Overview and Assessment of Autism Disorders. 3 credits.

This course is designed to provide an overview of the current issues involving working with children who have been identified as having an autism spectrum disorder. Areas covered in-depth will include learning characteristics, current research and factors involved with causation, assessment and diagnosis. We will discuss positive behavioral supports; social skills development; sensory processing, motor planning and sensory integration; and communication and language development as these will be covered in much greater depth in other courses. A range of institutional methodologies and techniques will be emphasized throughout the course.

EXED 417. Communication, Language & Sensory Issues of Autism. 3 credits.

This course is designed to provide an in-depth study of the current issues involved in working with children who have been identified as having an autism spectrum disorder. We will discuss only briefly learning characteristics, current research and factors involved with causation, assessment and diagnosis, and positive behavioral supports to set the stage. The bulk of our time will be spent exploring social skills development; sensory processing, motor planning and sensory integration; and communication and language development. We will consider a range of institutional methodologies and techniques for providing instruction, support and generalization of skills in these areas. *Prerequisite: EXED 416.*

EXED 418. Challenging Behaviors, Positive Behavioral Supports, Functional Behavioral Assessment and Behavior Intervention Plans. 3 credits.

This course is designed to provide an in-depth look at the behavioral challenges those with a disability in the autism spectrum might face and display. Areas addressed will include behavioral characteristics, current research and factors related to behavioral challenges in this population, positive behavioral supports, Functional Behavioral Plan Development, implementation and monitoring. We will cover data collection in relation to assessment and monitoring behaviors. We will review social skills development; sensory processing, motor planning and sensory integration; and communication and language development as these are covered in much greater depth in other courses. A range of institutional methodologies and techniques will be emphasized throughout the course. *Prerequisites: EXED 416 and EXED 417.*

EXED 420. Developing and Managing the Special Education Instructional Program. 1 credit.

This course explores the practical skills and strategies needed to develop and implement programming for K-12 special education students. Skills will be applicable in consultative, self-contained, resource and integrated settings.

EXED 430. Practicum in General Education Methods. 2 credits.

This practicum experience is designed to enhance understanding of the scope and sequence of the general education curriculum, explore the impact of state curriculum standards and provide an opportunity to observe teaching methods in language arts and mathematics.

EXED 431. Assistive Technology for Individuals with Sensory Impairments. 2 credits.

This course is designed to heighten the awareness of participants to specific technology and resources available to enhance and improve the abilities of individuals with sensory impairments to succeed in school, daily living activities and employment. This course is delivered via a distance education format. *Prerequisite or corequisite: EXED 435.*

EXED 432. Braille Code. 3 credits.

This course provides instruction in the development, use and application of the Braille literary code and its implications for educational/literacy programs for students with visual disabilities. Students will develop the skills to read and write contracted and uncontracted Braille, while acquiring instructional methodologies for teaching children who are blind to read and write. Sources of Braille materials for educational purposes are identified. This course is delivered via a distance education format. *Prerequisite or corequisite: EXED 435.*

EXED 433. Orientation and Mobility for Students with Visual Impairments. 2 credits.

This course provides the foundation for understanding the components and essence of orientation and mobility. It establishes how the need for independent travel by individuals with visual impairments created the field of O&M; explores the philosophy and history of orientation and mobility including cane instruction, dog guides and methods of travel; and addresses techniques in developing orientation skills and basic mobility instruction. Motor and concept skill development are emphasized. This course is delivered via a distance education format. *Prerequisite or corequisite: EXED 435.*

EXED 434. Curriculum and Assessment for Students with Visual Impairments. 3 credits.

This course provides students with knowledge and understanding of the educational assessment of students with visual impairments and additional disabilities including deaf-blindness. Students practice assessing and planning educational programs for students with visual impairments. Also covered in this course are assessment technology for students with visual impairments; determination of learning needs and appropriate learning media; and the relationship of assessment, IEP development, and placement. This course is delivered via a distance education format. *Prerequisite or corequisite: EXED 435.*

EXED 435. Characteristics of Students with Visual Impairments. 1 credit.

This course provides an overview of the characteristics of and services to persons with visual impairments, including the impact of visual impairments on infants' and children's growth and development, child and adolescent emotional and social development, and family interaction patterns. It considers the educational, conceptual, psycho-social and physical implications of a visual impairment. This course is delivered via a distance education format.

EXED 440. Classroom Management and Professional Collaboration. 3 credits.

A focus on techniques used to manage the behavior of students. Emphasized are strategies used to prevent inappropriate behavior from occurring and/or worsening. Other interventions are taught such as techniques for working with others (e.g., parents, teachers and administrators) who may provide behavior management assistance to teachers and administrators.

EXED 441. Functional Applications of Low Tech Assistive Technology. 2 credits.

This course will focus on functional applications of low-technology solutions within the areas of self-care; mobility and transfer; communication; stability and support; sports, recreation, and leisure; and academic and work environments. The course will include exploration and opportunities to design and create low-tech devices for children and adults. *Prerequisite: EXED 300.*

EXED 442. Computer Technology and Individuals with Disabilities. 3 credits.

This course is designed to increase students' awareness and understanding of computer technology and its implications for individuals with disabilities. It will examine the accessibility of standard computer hardware and software as well as explore available assistive technologies designed to enhance computer accessibility and the functional capabilities of individuals with disabilities. Laboratory and demonstration experiences will enable students to better utilize devices and software in a variety of settings. *Prerequisite: EXED 300, EXED 441 or permission of the instructor.*

EXED 443. Assistive Technology Use for Individuals with Disabilities. 2 credits.

This course is designed to enhance students' awareness and understanding of the range of assistive technologies available and their instructional implications for individuals with disabilities. Laboratory and demonstration experiences will enable students to select and utilize devices and software in settings serving individuals with disabilities. *Prerequisite: EXED 300.*

EXED 450. Principles of Specialized Reading Instruction. 3 credits.

The content of this course will focus on the acquisition and development of reading skills for students with disabilities. Content will include: characteristics of students with reading disabilities; informal assessment strategies; the relationship of oral language to reading; stage-development of reading skills; research-based instructional methods; principles of specialized reading instruction; scientifically-based reading programs for students with disabilities; and collaboration with parents to enhance students' reading skills. *Prerequisite: READ 430.*

EXED 455. Collaborative Teaching for Learners with Disabilities. 3 credits.

Students in this course will gain knowledge and practice skills in consultation, case management, and collaboration with individuals, families, educators, related service providers, and other human service professionals. An overview of collaborative processes, collaborative models for supporting the education of students with disabilities and for effective management of paraprofessionals will be studied. *Prerequisite: EXED 200 or equivalent.*

EXED 460. Differentiation of Instruction and Academic Collaboration. 3 credits.

This course assists preservice teachers in using their understanding of exceptional learners and learning to accommodate the diversity of students in the general education classroom. In addition, preservice teachers will explore the roles of teachers and how general and special education teachers collaborate to meet the needs of exceptional students.

EXED 465. Perspectives of Early Childhood Special Education. 3 credits.

This course is designed to provide the student with an overview of educational programming and service delivery for children with developmental delays and/or disabilities, ages 0 to 5. Particular attention is given to federal legislation, historical perspective and current recommended practice in programming educational services for young children with delays and/or disabilities.

EXED 470. Directed Practicum in Special Education. 3 credits.

This practicum course provides a structured supervised experience teaching students with disabilities. Application of skills in planning direct instruction, creating instructional materials, collecting performance data, managing behavior and developing social skills will be emphasized. *Prerequisite: EXED 475.*

EXED 471. Practicum in Integrated Primary EXED. 1 credit.

This practicum experience will provide an opportunity to enhance understanding of the scope and sequence of the general education curriculum, to observe the learning and behavioral characteristics of primary grades students with developmental delays and/or disabilities in inclusive educational settings and to observe methods for delivering instruction in inclusive classrooms. *Prerequisite: This course is for EXED-ECSE students only. Corequisite: READ 436.*

EXED 475. IEP and Curriculum-Based Assessment. 3 credits.

A detailed study of purposes and procedures involved in the development of Individualized Educational Programs (IEP) for students with disabilities. In addition, the course emphasizes the selection or design of curriculum-based assessment to plan and evaluate instruction in academics, social behaviors and life skills. *Prerequisite: EXED 350.*

EXED 485. Systematic Behavioral Interventions. 3 credits.

An application of various systematic behavioral interventions to the management of behavior and learning of individuals with disabilities. Approaches to teaching social skills are also addressed. *Corequisite: EXED 470.*

EXED 490. Special Studies in Special Education. 1-3 credits each semester.

Designed to allow the student to complete independent study under faculty supervision. *Prerequisite: Permission of the program coordinator.*

EXED 499. Honors. 6 credits.

See catalog sections titled "Graduation with Distinction" and "Graduation with Honors."

Family Studies

Department of Social Work**FAM 133. The Contemporary Family.** 3 credits. *Offered fall and/or spring.*

Concepts of variations in forms and lifestyles of families. Consideration is given to the family life cycle and the interdependency between the family and society.

FAM 300. Child Development. 3 credits. *Offered on a rotating basis.*

A study of the factors influencing the physical, cognitive, social and emotional growth of the young child. Emphasis is given to the importance of family relations and development of observational skills. *Prerequisite: GPSYC 101, GPSYC 160 or equivalent.*

FAM 330. Family Relations. 3 credits. *Offered on a rotating basis.*

A study of the structures, functions and dynamics of contemporary families with consideration of diverse cultural definitions and contexts. *Prerequisite: FAM 133 or SOCI 276.*

FAM 335. Parent-Child Relationships Across the Lifespan. 3 credits.

Offered on a rotating basis.

Focuses on intergenerational caregiving and interactions across the lifespan and generations. Uses a developmental framework to explore family life as the territory in which people fulfill relational responsibilities to children and parents while simultaneously attending to independent life stage challenges. *Prerequisite: FAM 133 or SOCI 276.*

FAM/GERN/NPS/SOWK 375. Grant Writing for Agencies. 3 credits.

Offered on a rotating basis.

Emphasizing active learning, this course teaches the basics of grant and proposal writing. Efficient research, persuasive prose and the importance of relationships are stressed. Private and corporate philanthropy are examined with guest speakers providing current insights. Students research, write and complete a funding proposal.

FAM/SOWK 386. Youth Empowerment Strategies (YES). 3 credits.

Offered fall and/or spring.

Students learn to use group activities that include the creative arts, low ropes and self-discovery in youth empowerment. The goal is to help youth build life skills and make informed decisions. Prior to beginning work with youth, students complete 25 hours of training.

FAM 400. Issues and Applications. 3 credits. *Offered fall and spring.*

This seminar is designed to integrate and apply knowledge from the student's major and the family studies minor. A substantial, in-depth individualized project will strengthen the student's capabilities in research, information access and self-directed learning. *Prerequisites: FAM 133 or SOCI 276, three additional courses in the family studies minor, and junior or senior standing.*

FAM 487. Special Topics in Family Studies. 3 credits. *Offered on a rotating basis.*

Examination of selected topics that are of current importance to family studies. Course may be repeated for credit. *Prerequisite: FAM 133 or SOCI 276.*

FAM 490. Special Studies in Family Studies. 1-3 credits. *Offered fall and/or spring.*

The course is designed to give capable students in family studies an opportunity to complete independent study under faculty supervision. Course may be repeated for credit. *Prerequisites: FAM 133 or SOCI 276 and two additional courses in the family studies minor or permission of the instructor.*

Finance

College of Business**FIN 210. Principles of Real Estate.** 3 credits. *Offered fall and spring.*

Emphasizes industry principles and economic factors influencing the real estate business. Subjects include contracts, deeds, valuation, financing and subdivision development.

FIN 250. Introduction to Quantitative Finance. 3 credits.

A broad introduction to the markets and instruments of engineered finance. The focus of the course is to expose students to the properties and uses of the array of non-traditional financial instruments that are increasingly trading in both the exchange and over-the-counter markets. *Prerequisite: MATH 236 or permission of the instructor.*