MSES 5230. Risk Management in Construction. 3 hours. Review of the concepts of risk and uncertainty in the construction and their impact on management decisions in construction industry, and a study of the systems, tools and techniques used in construction project risk management. Subjects also include development of risk mitigation procedures, safety planning and execution, and the role of insurance and bonds in the industry.

MSES 5300. Embedded Controllers. 3 hours. (2;2) The study of the technical aspects of real-time software systems: software development methodologies, operating system and real-time kernel concepts.

MSES 5310. Industrial Process Controls. 3 hours. (2;2) Use of programmable controllers and microcomputers as controllers in industrial processes; topics include sensors and transducers, data acquisition, control devices and the nature of digital control.

MSES 5320. Introduction to Telecommunications.
3 hours. An introduction to the technology, standards, systems and practices of the telecommunications industry to

systems and practices of the telecommunications industry to include equipment, switched and dedicated communications lines, and voice and data communications.

MSES 5330. Instrumentation System Design. 3 hours. (2;2) The major objectives of this course are instrumentation design techniques, transducer selection, and interfacing control and measurement signals to the system. The use of graphical and structured programming techniques in the design of virtual instrument systems will constitute a significant portion of the course. Completion of a capstone project incorporating a summation of learning experiences from the entire curriculum is a requirement of the course. Must be taken the last term/semester offered prior to graduation. Prerequisite(s): completion of ELET required courses; course is to be taken within the last 12 hours of the degree plan.

MSES 5340. Digital Logic Design Techniques. 3 hours. (2;2) Study of the design, simulation and implementation of digital logic circuits including combinational and sequential logic, algorithmic state machines, hardware test techniques, software used in design, simulation and an introduction to the use of VHDL programming language. Oral and written documentation required.

MSES 5800-MSES 5810. Studies in Engineering Systems. 1–3 hours each. Organized classes specifically designed to accommodate the needs of students and the demands of program development that are not met by regular offerings. Short courses and workshops on specific topics, organized on a limited-offering basis, to be repeated only upon demand. May be repeated for credit.

MSES 5900-MSES 5910. Special Problems. 1–3 hours each. Open to graduate students capable of developing a problem independently.

MSES 5930. Research Problems in Lieu of Thesis. 3 hours. Independent, applied research that addresses significant problems in the field, emphasizing statistical methods and research design, supervised by a member of the engineering technology graduate faculty and approved by the department chair; for students who are doing a project in lieu of a thesis; no credit given until the problem is completed and approved. Prerequisite(s): approval of research proposal by major advisor and department chair.

MSES 5950. Master's Thesis. 3 or 6 hours. To be scheduled only with consent of department. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun. May be repeated for credit.

Manufacturing Engineering Technology – see *Undergraduate Catalog*

Mechanical Engineering Technology – see Undergraduate Catalog

Nuclear Engineering Technology – see *Undergraduate Catalog*

English

English, ENGL

ENGL 5000. Old English. 3 hours. A study of Old English grammar and phonology; the reading of selections from prose and poetry in West Saxon; a survey of the literature of the Old English period. Prerequisite(s): 12 semester hours in advanced English, including a course from Group D. See *Undergraduate Catalog* for Group D course listing.

ENGL 5010. Beowulf. 3 hours. A study of *Beowulf,* its language and its place in the Germanic epic tradition; some attention to other heroic poetry. Prerequisite(s): ENGL 5000.

ENGL 5030. Studies in Medieval Literature. 3 hours. A detailed study of the works of one or more of the major writers or literary genres of the medieval period in England, with a study of the major literary and social forces that helped to shape the cultural context of the period.

ENGL 5100. Studies in British Literature of the Romantic Period. 3 hours. A detailed study of the work of one or more of the major Romantic poets, together with wide reading in the general literature of the period.

ENGL 5140. Form and Theory: Poetry. 3 hours. Rhetorical criticism of poetry to show how poems achieve identification with the audience; emphasis on student mastery of critical analysis.

ENGL 5145. Form and Theory: Prose. 3 hours. Rhetorical criticism of prose fiction to show how short stories and novels achieve effect.

ENGL 5162. Creative Writing: Essay. 3 hours. A close analysis of the contemporary essay; writing of essays using rhetorical principles in conjunction with invention, humor and polemics. Prerequisite(s): by permission of the department.

ENGL 5170. Rhetorical Theory. 3 hours. A consideration of rhetorical theory from the Greeks to modern times. Emphasis upon 20th-century advances and innovations. The relationship between literary criticism and rhetorical theory; persuasive techniques in literary discourse; the place of rhetorical theory in the teaching of writing.

ENGL 5200. Studies in British Literature of the Victorian Period. 3 hours. A study of the works of one or more of the major British writers of the Victorian period and of the intellectual and philosophical interests of the time.

ENGL 5250. Studies in British Literature of the Eighteenth Century. 3 hours. An appraisal of a significant group of writers or a literary genre of either the Restoration or the 18th century, together with attention to the historical, intellectual and social background.

ENGL 5260. Studies in Nineteenth-Century British Literature. 3 hours. A detailed survey of the works of the Romantic and Victorian periods, with a general consideration of social and intellectual interests of the time.

- **ENGL 5400. Studies in Shakespeare.** 3 hours. An intensive study of selected plays and a consideration of some of the literary problems connected with Shakespeare's life and work.
- ENGL 5410. Studies in the British Renaissance. 1–4 hours. A study of the works of one or more major authors of the 16th and 17th centuries and of the intellectual, philosophical and religious life of the time.
- **ENGL 5420.** Creative Writing: Poetry. 3 hours. A study of the principles of poetic composition in traditional forms as well as free verse. Format includes lecture and workshop. Prerequisite(s): consent of department.
- ENGL 5490. Studies in the Twentieth-Century British Novel. 3 hours. A detailed study of the writings of one or more major 20th-century British novelists, with consideration of relevant social and intellectual interests of the time.
- ENGL 5500. Studies in American Literature from the Beginning to 1800. 3 hours. A survey of the writings of major Colonial and Federalist American authors and a general consideration of the social and intellectual interests of the time
- ENGL 5510. Studies in American Literature, 1800 to 1865. 3 hours. A detailed study of the writings of major authors and a general consideration of the social and intellectual interests of the time.
- ENGL 5520. Studies in American Literature, 1865 to 1914. 3 hours. A detailed study of the writings of major authors and a general consideration of the social and intellectual interests of the time.
- ENGL 5530. Studies in American Literature, 1914 to the Present. 3 hours. A detailed study of the writings of major authors and a general consideration of the social and intellectual interests of the time.
- ENGL 5540. Studies in Twentieth-Century British Literature. 3 hours. A detailed study of the complete writings of one or more major 20th-century British authors, with consideration of relevant social and intellectual interests of the time.
- ENGL 5550. Studies in the Teaching of Composition. 3 hours. Survey of current scholarly opinion concerning objectives and methods of instruction in written composition; supervised planning of the English curriculum, with special attention to problems related to teaching composition; development through practice of criteria for evaluating student composition. May be repeated for credit as topics vary. Either ENGL 5550 or TECM 5550 is required for all new teaching fellows (offered every fall).
- ENGL 5560. Studies in the Teaching of Literature. 3 hours. Survey of current scholarly opinion concerning objectives and methods of teaching literature; supervised planning of the English curriculum, with special attention to problems related to the teaching of poetry, drama, prose fiction and prose non-fiction.
- ENGL 5570. Studies in the Teaching of the English Language. 3 hours. Survey of current scholarly opinion concerning objectives and methods of teaching grammar, vocabulary, semantics, usage and other aspects of language; supervised planning of the curriculum with special attention to problems related to the teaching of the English language in its spoken and written forms.

- ENGL 5600. Studies in European Literature. 3 hours. Study of a major period or movement in continental European literature; extensive reading in literature in translation and research in literary history and development, with emphasis upon relations to British and American literature.
- **ENGL 5630. Semiotics.** 3 hours. An introduction to the study of signs as signifiers of meaning in various genres.
- ENGL 5700. Classical Background of English and American Literature. 3 hours. A study of Greek and Latin literature in translation, with emphasis upon works that have strongly influenced English and American literature; research in literary and linguistic influences.
- **ENGL 5710. Studies in Folklore.** 3 hours. An introduction to the types of folklore, with emphasis upon cultural phenomena as reflected in tales, legends, proverbs and folk songs, and upon folklore motifs as bases for formal literature. Techniques of collecting, comparing and analyzing folklore.
- ENGL 5750. Bibliography and Methods of Research in Literature. 3 hours. An examination of the basic materials available for research in British and American literature; study of the conventions of presentation of material in scholarly writing; consideration of types of bibliography, problems in textual analysis and criticism, and methods of research in literary history and literary criticism.
- ENGL 5760. Scholarly and Critical Writing. 3 hours. Examination of the writing strategies entailed in preparing successful term papers, theses, dissertations and publishable articles.
- **ENGL 5800. Studies in Literary Genres.** 3 hours. A study of the historical development of one or more literary genres in American, English, continental or world literature, with attention to major practitioners in the genre and to the historical and literary influences on the form.
- **ENGL 5810. Studies in Literary Criticism.** 3 hours. A study of one or more major strains of critical emphasis, with special attention to those that have been influential in the 20th century.
- ENGL 5820. Creative Writing: Prose Fiction. 3 hours. A study of the principles of prose fiction as exemplified in published and unpublished works. Emphasis on writing for specific subgenres and methods of preparation and submission of work. Workshop format is employed. Prerequisite(s): by permission of the department.
- **ENGL 5825. Screenwriting.** 3 hours. A study of the principles of dramatic composition as applied to writing for the motion picture or television screen.
- ENGL 5890. Studies in the American Novel, 1914 to the Present. 3 hours. A detailed study of the writings of one or more major American novelists and a general consideration of the social and intellectual interests of the time.
- ENGL 5900-ENGL 5910. Special Problems. 1–3 hours each. Conference course open to advanced students capable of doing independent research under the direction of the instructor. Registration permitted only when other graduate courses are not available and only upon the recommendation of the instructor and the consent of the department chair. A maximum of 3 semester hours of credit is allowed for each course.

ENGL 5920-ENGL 5930. Research Problems in Lieu of Thesis (Original Scholarly Papers). 6 hours each. (0;0;6) Courses each require the composition of an original scholarly paper in the field of linguistics and/or English as a second language. Prerequisite(s): consent of department.

ENGL 5950. Master's Thesis. 3 or 6 hours. To be scheduled only with consent of department. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun. May be repeated for credit.

ENGL 5960-ENGL 5970. English Institute. 1–6 hours each. For students accepted by the university as participants in special institute courses. May be repeated for credit but not to exceed 6 hours in each course.

ENGL 6020. Seminar in Old and Middle English Language or Literature. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6200. Seminar in British Literature, 1500–1660. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6250. Seminar in British Literature, 1660–1780. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6410. Seminar in British Literature, 1780 to the Present. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6500. Seminar in American Literature to 1865. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6530. Seminar in American Literature, 1865 to the Present. 3 hours. A study in depth of a single writer, a group of writers, a literary genre or a literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6590. Seminar in the Novel. 3 hours. A study in depth of a single novelist, a group of novelists, a literary genre or literary fashion of the period; consideration of the cultural context of the literary work.

ENGL 6900-ENGL 6910. Special Problems. 1–3 hours each. Conference course open to doctoral candidates doing independent research under the direction of the instructor.

ENGL 6941-ENGL 6942-ENGL 6944. Directed Research. 1–12 hours each. Doctoral research of an independent nature. May be repeated for credit.

ENGL 6950. Doctoral Dissertation. 3, 6 or 9 hours. To be scheduled only with consent of department. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.

Ensembles, Music

see Music

Ethnomusicology, Music

see Music

Finance

see Finance, Insurance, Real Estate and Law

Finance, Insurance, Real Estate and Law

Business Law, BLAW

BLAW 5050. Legal, Regulatory and Ethical Environment of Business. 1.5 hours. Introduction to the legal environment of business, with particular emphasis on managerial decision-making. Includes a study of the litigation process and constitutional law; selected areas of private and public law, including government regulation; international dimensions of the legal environment of business, business ethics and the social responsibility of business organizations. Business context is emphasized with a focus on individual and managerial decision-making in response to legal and ethical issues.

BLAW 5400. Law for Accountants and Managers. 3 hours. A study of and practice in the technique of analyzing law problems and cases affecting accountants and managers. Topics include legal responsibility, business organizations, contracts, debtor-creditor relations, government regulation, uniform commercial code and property rights.

BLAW 5600. Current Topics in Law. 3 hours. Designed to provide information on the legal environment of specified functional areas as required by need of functional areas and/ or changes in the law. May be repeated for credit as topics vary

BLAW 5610. Legal Issues in Electronic Commerce. 3 hours. Part of the electronic commerce track in the MBA program. Examination of the emerging law, ethics and public policy applying to computer technology, the Internet, and electronic business and commerce. Prerequisite(s): BLAW 5050, or equivalent with approval of instructor.

BLAW 5760. Insurance Law. 3 hours. Designed to lead the student into a study of fundamental legal doctrines and concepts applicable to the field of insurance. Includes contract law, parties to the contract, insurable interest, agency powers, waiver and estoppel, warranties, representations and concealments, the rights of the beneficiary and provisions controlling and limiting loss. Pertinent to the life-health and property-liability insurance

BLAW 5770. Advanced Real Estate Law and Contracts. 3 hours. In-depth study of legal principles governing real estate transactions with an emphasis on promulgated contracts. Topics may include contract law, estates in land, types of ownership, deeds, mortgages, title insurance, agency and homestead.

BLAW 5900. Special Problems. 1–3 hours. Open to graduate students who are capable of developing a problem independently. Problem chosen by the student and developed through conferences and activities under the direction of the instructor. Prerequisite(s): approved applications for special problems/independent research/dissertation credit must be submitted to the CoB Graduate Programs Office prior to registration.