971   Emerging Topics in Chemistry
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to doctoral students in the Chemistry or Chemical Physics major.
Discussion of a research topic of emerging interest in chemistry. Preparation of a proposal for funding of research.

987   Selected Topics in Physical Chemistry I
Fall. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to doctoral students or approval of department.
Topics such as kinetics and photochemistry, macromolecular and surface chemistry, molecular spectroscopy, electric and magnetic properties of matter, or applications of statistical mechanics to chemical problems.

988   Selected Topics in Physical Chemistry II
Spring. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to doctoral students or approval of department.
Topics such as analysis and interpretation of molecular spectra, advanced molecular structure theory, magnetic resonance, X-rays and crystal structure, scientific analysis of vacuum systems, or problems in statistical mechanics.

991   Quantum Chemistry and Statistical Thermodynamics I
Fall. 3(3-0) R: Open only to graduate students in College of Natural Science or College of Engineering.
Principles and applications of quantum chemistry. Partition functions, spectroscopic measurements, and thermodynamic applications.

992   Quantum Chemistry and Statistical Thermodynamics II
Spring. 3(3-0) P:NM: (CEM 991)
Analytical and numerical methods for solving quantum chemical problems. Statistical mechanics of solids and liquids.

993   Advanced Topics in Quantum Chemistry
Spring of odd years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to graduate students in the College of Natural Science or the College of Engineering.
Spectroscopic theory, properties of atoms and molecules in electric and magnetic fields, intermolecular forces. Many-body theory, molecular electronic structure, solid state chemistry, or molecular reaction dynamics.

994   Advanced Topics in Statistical Mechanics
Spring of even years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to graduate students in the College of Natural Science or the College of Engineering.
Nonequilibrium statistical mechanics and thermodynamics. Correlation functions and spectroscopy, light scattering, magnetic relaxation, transport properties of fluids and gases, or statistical mechanics of chemical reactions.

998   Physical Chemistry Seminar
Fall, Spring. 1(1-0) A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to graduate students in Chemistry.
Advances in physical chemistry reported by graduate students.

999   Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 20 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to doctoral students in Chemistry and Chemical Physics.
Doctoral dissertation research.

CHINESE   CHS

Department of Linguistics and Germanic, Slavic, Asian and African Languages
College of Arts and Letters

101   Elementary Chinese I
Fall. 5(5-0) Not open to students with credit in CHS 112.
Pronunciation, writing system, and basic vocabulary and sentence patterns, with emphasis on conversation.

102   Elementary Chinese II
Spring. 5(5-0) P:M: (CHS 101) Not open to students with credit in CHS 105.
Further work on conversation, character writing, and comprehension, with increasing emphasis on vocabulary building and grammar.

105   Introductory Chinese with Business Emphasis
Summer. 5(5-0) SA: CHS 111, CHS 112 Not open to students with credit in CHS 101.
Beginning-level speaking, listening comprehension, and reading for Chinese in business-related contexts. Economic conditions and business culture in China.

201   Second-Year Chinese I
Fall. 5(5-1) P:M: (CHS 102) R: Approval of department.
Intermediate-level work on skills in conversation, comprehension, and grammar. Practice in composition.

202   Second-Year Chinese II
Spring. 5(5-0) P:M: (CHS 201) R: Approval of department.
Further intermediate-level work on skills in conversation, comprehension, and grammar. Continued practice in composition.

301   Third-Year Chinese I
Fall. 4(4-0) P:M: (CHS 202)
Advanced-level work on speaking, listening comprehension, reading, and writing skills, based on materials of cultural interest.

302   Third-Year Chinese II
Spring. 4(4-0) P:M: (CHS 301)
Advanced-level work on speaking, listening comprehension, reading, and writing skills, based on materials of cultural interest.

350   Studies in the Chinese Language
Spring. 3(3-0) P:M: (CHS 201)
Grammatical structures of modern Chinese. Grammar review, sound system, word formation, sentence and discourse structures, historical evolution of the Chinese language, dialects, sociolinguistics.

401   Fourth-Year Chinese I
Fall. 3(3-0) P:M: (CHS 302)
Reading, discussion, and writing of advanced materials, including classical texts of broad cultural interest.

402   Fourth-Year Chinese II
Spring. 3(3-0) P:M: (CHS 401)
Further reading, discussion and writing based on original materials, including classical texts of broad cultural interest.

499   Senior Thesis Research
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. R: Approval of department.
An individual research project supervised by a faculty member that demonstrates the student's ability to do independent research and submit or present a major paper.

CIVIL ENGINEERING   CE

Department of Civil and Environmental Engineering
College of Engineering

271   Engineering Surveying
Fall, Spring. 4(3-3) P:M: (MTH 104 or MTH 116 or MTH 120 or MTH 124 or MTH 132 or LBS 117 or LBS 118)
Application of surveying and error analysis to civil engineering problems. Earth work. Calculations. Layout and management of construction sites.

280   Introduction to Environmental Engineering
Fall, Spring. 3(3-0) P:M: (CEM 141 or CEM 151 or LBS 165) and (MTH 132 or concurrently or LBS 118 or concurrently) and (CSE 101 or concurrently or CSE 131 or concurrently or CSE 231 or concurrently or LBS 125 or concurrently or LBS 126 or concurrently or LBS 127 or concurrently)
Elements of hydrology. Groundwater and surface water supply and contamination. Treatment systems for drinking water, wastewater, air, and solid and hazardous waste. Noise and radiation pollution.

305   Structural Analysis
Fall, Spring. 3(3-0) P:M: (MSM 211) R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering.
Determinate and indeterminate plane structures. Linearity, stability, determinacy. Virtual-work calculation of forces and displacements. Flexibility and stiffness methods in plane structures.

312   Soil Mechanics
Fall, Spring. 3(2-3) P:M: (MSM 211) and completion of Tier I writing requirement. R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering or in the Biosystems Engineering major.
Engineering properties of soil and their measurement. Effective-stress concept. Permeability and seepage. Compaction. Consolidation, shear strength and stress-strain behavior.

Civil Engineering–CE

321 Introduction to Fluid Mechanics
Fall, Spring. 4(3-2) P:M: (MTH 235 or concurrently) and completion of Tier I writing requirement. R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering or in the Biosystems Engineering major. Not open to students with credit in ME 332.
Fluid properties, fluid statics, fluids in motion. Conservation of mass, energy and momentum. Dimensional analysis and similitude. Internal and external flows. Applications.

337 Civil Engineering Materials I
Fall, Spring. 4(3-3) P:M: (MSM 211 or concurrently) R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering.
Common civil engineering construction and paving materials: aggregates, inorganic cements, asphalts, concretes, wood and steel. Composition, structure, physical and mechanical properties, tests, and production mix design.

341 Transportation Engineering
Fall, Spring. 3(3-0) P:M: (MTH 234 or concurrently) RB: (STT 351) R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering or in the Urban and Regional Planning major. SA: CE 346
Overview of transportation system issues and problems. Fundamentals of highway design and operations. Planning and evaluation of transportation system alternatives.

375 Cost Engineering and Engineering Ethics
Fall. 3(3-0) R: Open only to juniors or seniors in the College of Engineering. SA: CE 370
Cost engineering concepts and applications. Time value of money, alternative definitions and decision criteria. Equivalent cash flows. Cost benefit analysis, rate of return, depreciation. Moral foundations, engineering codes of ethics and case studies.

400 Structural Mechanics
Fall. 3(3-0) P:M: (CE 305) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Matrix methods of structural analysis. Flexibility method. Direct stiffness method for plane structures. Elastic supports, inclined supports, member releases and non-prismatic members. Application software.

405 Design of Steel Structures
Fall, Spring. 3(3-0) P:M: (CE 305) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Design of steel beams, columns, tension members and connections. Stability and plastic strength.

406 Design of Concrete Structures
Fall, Spring. 3(3-0) P:M: (CE 305 and CE 337) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Design of reinforced concrete beams, slabs, columns and footings.

418 Geotechnical Engineering
Fall, Spring. 4(4-0) P:M: (CE 312) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Shallow foundation design including bearing capacity, stress distribution, and settlement analysis. Pile foundations. Design of retaining structures including rigid walls, braced excavations, and sheet-pile walls. Stability of slopes and embankments.

421 Engineering Hydrology
Fall. 3(2-2) P:M: (CE 321 or concurrently) RB: (STT 351) R: Open only to juniors or seniors or graduate students in the College of Engineering or College of Natural Science or Department of Crop and Soil Sciences.
Hydrologic design of stormwater systems. Equilibrium hydrograph analysis, unit hydrographs, infiltration, hydrograph synthesis, and reservoir routing. Groundwater: Darcy's law, flow nets, well hydraulics, design of capture wells.

422 Applied Hydraulics
Spring. 3(2-2) P:M: (CE 321 or ME 332) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering or Department of Mechanical Engineering or in the Biosystems Engineering major.
Fundamentals of open-channel flow. Rapidly and gradually varied nonuniform flow analysis. Confined flows past submerged bodies, in pipe networks, and in turbo machinery. Design applications.

431 Pavement Design and Analysis I
Fall. 4(4-0) P:M: (CE 312 and CE 337) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Highway and airfield pavement structural design. Performance measures. Failure mechanisms, popular thickness design procedures, and design considerations for surface friction, pavement joints, and drainage. Design of rehabilitation alternatives, design of overlays.

432 Pavement Rehabilitation
Spring. 3(3-0) P:M: (CE 312 and CE 337) P:NM: (CE 431) R: Open only to seniors or graduate students in the Department of Civil and Environmental Engineering.
Engineering concepts and information needed to rehabilitate pavements. Network and project survey and evaluation: design of rigid and flexible overlays, other methods of rehabilitation, selection of rehabilitation alternatives. Initial and life cycle cost analysis of various rehabilitation alternatives.

442 Airport Planning and Design
Fall. 3(3-0) P:M: (CE 341) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Components of the airport system including ground access facilities, aircraft characteristics, air traffic control, airport configuration, capacity analysis.

443 Advanced Airport Systems Design
Spring. 3(3-0) P:M: (CE 442) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Analysis and design of airport systems using computer models. Design parameters, demand analysis. Runway orientation and capacity, airside delay, vehicle processing. Passenger processing.

444 Principles of Traffic Engineering
Fall. 3(3-0) P:M: (STT 351) P:NM: (CE 341) RB: (CE 341) R: Open only to juniors or seniors or graduate students in the Civil Engineering major.
Driver and vehicle characteristics affecting traffic flow and safety. Speed, density, capacity relationships. Signal control in street networks. Freeway management systems. Risk management and liability.

448 Transportation Planning
Spring. 3(3-0) P:M: (CE 341 and STT 351)
Transportation planning process and procedures. Estimation of travel demand using traditional models of trip generation, trip distribution, modal split, and traffic assignment. Use of "quick-response" procedures. Traffic impact of new facilities.

449 Highway Design
Fall, Spring. 4(3-3) P:M: (CE 341) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Geometric design of highways as related to operation, capacity and safety. Alignment, drainage and pavement design. The use of CAD systems in preparing contract plans.

462 Technical Communication
Spring. 3(3-0) RB: Junior status in a degree program in the College of Engineering.
Major modes of technical communication such as letters, memoranda, research reports, analysis/decision papers, presentations, information graphics, procedures. Communication planning, audience analysis, and information design. Case studies, exercises and writing workshops.

480 Water and Wastewater Analysis Laboratory
Fall. 1(0-3) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering. C: CE 481 concurrently.
Chemical and microbial analysis of water and wastewater.

481 Environmental Engineering Chemistry
Fall. 3(3-0) P:M: (CEM 361 and CHE 201 and CE 280)
Chemistry of environmental processes including alkalinity, precipitation-dissolution reactions, chemical complexation and redox reactions. Engineering applications to processing plants for water and wastewater.

483 Water and Wastewater Treatment
Fall. 3(3-0) P:M: (CE 280 and CE 321 or concurrently) R: Open only to juniors or seniors or graduate students in the Department of Civil and Environmental Engineering.
Distribution of water and collection of sewage. Theory and design of water treatment processes.

485 Solid and Hazardous Waste Management
Spring. 3(3-0) P:M: (CE 280) R: Open only to juniors or seniors or graduate students in the College of Engineering.
Design of solid waste collection and disposal systems. Definition of hazardous waste problems and selection of treatment alternatives.

487 Microbiology for Environmental Health Engineering
Spring. 3(3-0) P:M: (CEM 361 and CHE 201) R: Open only to juniors or seniors or graduate students in the College of Engineering.
Use and control of microorganisms for the protection of public health and the environment. Thermodynamics of microbial populations and microbial transformations.

490 Independent Study
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering. Approval of department.
Civil engineering problem of specific interest to the student and a faculty member. May be analysis or design.

491 Civil Engineering Design Project
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to juniors or seniors in the Department of Civil and Environmental Engineering. Approval of department.
Planning, specification, and design of a civil engineering project or facility.

492 Selected Topics in Civil Engineering
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.
Selected topics related to construction engineering, environmental engineering, fluid mechanics, geotechnical engineering, hydrology, pavements, structural engineering, or transportation engineering.

800 Bridge Design
Spring of odd years. 3(3-0) RB: (CE 400 and CE 405 and CE 406 and CE 312 and CE 806) R: Open only to graduate students in the College of Engineering or approval of department.
Design and analysis of bridge structures including bridge types, materials, load conditions, construction, methods, and rehabilitation. Analysis of beam-slab, box girder, curved, and skewed bridges. Conceptual or preliminary design of a bridge project.

802 Introduction to Dynamics and Earthquake Engineering
Fall. 2 credits. P:NM: (MSM 306) Not open to students with credit in ME 461.
Dynamic response of single degree-of-freedom systems. Damping in structures and soils. Time domain and frequency domain methods. Analytical and numerical solution techniques. Earthquake response spectra.

803 Dynamics of Structures and Soils and Earthquake Engineering (MTC)
Fall. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course.
Topics vary each semester. Topics such as structural dynamics, soil dynamics, and earthquake engineering.

804 Advanced Mechanics for Civil Infrastructure
Fall. 3(3-0) P:NM: (CE 400) RB: Matrix structural analysis R: Open only to graduate students in the College of Engineering.
Advanced linear mechanics. Potential energy principle. Finite element formulations. Applications to problems in structural, geotechnical and pavement engineering.

805 Advanced Design of Steel Structures
Spring. 3(3-0)
Flexural and torsional instability of columns and beams. Slender cross-sectional elements, design of beam-columns. Torsion, plastic design, plate girders, composite steel-concrete construction, connections.

806 Advanced Structural Concrete Design
Fall. 3(3-0) SA: CE 808
Analysis and design of prestressed and conventionally reinforced concrete structures.

809 Finite Element Method
Fall, Spring. 3(3-0) Interdepartmental with Materials Science and Mechanics; Mechanical Engineering; Biosystems Engineering. Administered by Department of Materials Science and Mechanics.
Theory and application of the finite element method to the solution of continuum type problems in heat transfer, fluid mechanics, and stress analysis.

810 Reliability-Based Design in Civil Engineering
Fall. 3(3-0)
Probabilistic treatment of live and dead loads: earthquakes, floods, material properties, and capacity. Reliability basis of design specifications, reliability index, probability of failure, design for reliability. Reliability of engineering systems.

811 Advanced Hydrogeology
Spring. 3(3-0) Interdepartmental with Geological Sciences. Administered by Department of Geological Sciences. P:NM: (CE 821)
Processes influencing groundwater flow and solute transport. Mathematical equations and numerical methods to describe these processes.

812 Mechanical Properties of Soils
Fall. 3(2-3)
Permeability, consolidation theory, stress-strain behavior, conditions of failure, shear strength. Laboratory determination of soil properties including interpretation of experimental data.

815 Selected Topics in Geotechnical Engineering
Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.
Selected topics related to soil stabilization, highway and airport soils, and frozen ground engineering.

818 Advanced Geotechnical Design
Spring. 3(3-0)
Foundations and earth retaining structures. Bearing capacity, settlement, and lateral resistance of deep foundations. Advanced design of retaining structures using in-situ test data. Numerical solution of geotechnical problems.

821 Groundwater Hydraulics
Fall. 3(3-0)
Physical properties of porous media. Equations of flow in saturated media. Flow nets, well flow and parameter measurement. Transport processes and the advective-dispersion equation for conservative contaminants.

831 Pavement Design and Analysis II
Spring. 3(3-0)
Theoretical models for analysis of pavement systems. Evaluation and application of current design practices related to elastic and plastic theory. Formulation of improved design procedures.

835 Engineering Management of Pavement Networks
Spring of even years. 3(3-0)
Theoretical and statistical analysis of pavement networks. Engineering monitoring. Determination of distress mechanisms and engineering solutions. Assignment of priorities to engineering actions.

837 Civil Infrastructure Materials
Fall. 3(3-0)
Elastic and inelastic behavior and modeling of materials for civil infrastructure; design for desired properties and response of infrastructure components and systems. Constituents, manufacturing, stiffness, strength, failure, and durability of pavements, structural concretes, and fiber reinforced polymer composites.

839 Stabilizing Unbound Granular Materials
Fall of even years. 3(3-0)
Improving performance and engineering properties of various granular materials through the use of mechanical processes, and chemical or mineralogical additives. Characterization of engineering properties of stabilized materials.

841 Traffic Flow Theory
Spring. 3(3-0)
Microscopic and macroscopic traffic flow models, Queueing theory. Gap acceptance. Simulation models for network analysis. Intelligent vehicle highway systems.

843 Simulation and Optimization of Urban Traffic Flow
Fall of even years. 3(3-0) P:NM: (CE 841)
Statistical analysis of highway geometric designs and operational-control strategies with respect to the optimal flow of traffic: intersection, arterial, network design and control models. Traffic simulation. System management and optimization.

844 Highway and Traffic Safety
Fall of odd years. 3(3-0)
Analysis of highway geometric design alternatives and operational-control strategies with respect to accident probabilities. Statistical methods of pattern identification. Countermeasure selection and evaluation methodology. Risk management.

846 Statewide Transportation Network Evaluation
Spring of odd years. 3(3-0)
Transportation system measures, needs studies, sufficiency ratings. Cost allocation models, programming and budget constraints. Corridor analysis, transportation economics, demand elasticity.

Civil Engineering–CE

847 Simulation Models for Transportation Applications
Fall of even years. 3(3-0)
Simulation models for analysis and optimization of transportation systems. Experimentation with planning and traffic simulation models for signal timing and capacity analysis.

849 Transportation Research Methods
Spring. 3(3-0)
Application and interpretation of quantitative methods and design of experiments for transportation research; ANOVA, non-parametric, discriminant analysis, factor analysis, multivariate regression, SPSS.

850 Intelligent Transportation Systems (ITS)
Fall of odd years. 3(3-0) RB: Traffic and Transportation engineering
Technical and policy aspects emerging from the application of advanced technologies to transportation problems. Intelligent Transportation Systems (ITS) user services requirements, available and emerging technologies, case studies of ongoing operational tests, legal institutional and planning issues related to ITS development and deployment.

851 Transportation and the Environment
Spring of even years. 3(3-0) RB: B.S. in Civil Engineering with emphasis on transportation or environmental engineering R: Open only to graduate students in the College of Engineering.
The impact of transportation systems on the environment. Elements of Environmental Impact Statements. Policy options and their consequences. Alternatives for reducing environmental impact.

890 Independent Study in Civil Engineering
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to Civil Engineering master's students. Approval of department.
Research problems of limited scope not pertaining to thesis accomplished under CE 899 or CE 999.

891 Selected Topics in Civil Engineering
Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course.
Selected topics in new or developing areas of civil engineering.

892 Master's Research Project
Fall, Spring, Summer. 3 to 5 credits. R: Open only to master's students in the Civil Engineering major. Approval of department.
Master's degree Plan B individual student research project. Original research, research replication, or survey and reporting on a research topic.

893 Master's Design Project
Fall, Spring, Summer. 1 to 3 credits. R: Open only to master's students in the Civil Engineering major. Approval of department.
Master's degree Plan B individual student civil engineering design project.

899 Master's Thesis Research
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 24 credits in all enrollments for this course.
Master's thesis research.

990 Independent Study in Civil Engineering
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to Civil Engineering doctoral students
Research problems of limited scope not pertaining to thesis accomplished under CE 999.

999 Doctoral Dissertation Research
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 72 credits in all enrollments for this course.
Doctoral dissertation research.

CLASSICAL STUDIES   CLA

Department of Romance and Classical Languages
College of Arts and Letters

120 Latin and Greek Roots of English Words
Spring of even years. 3(3-0)
Prefixes, suffixes, and roots of English vocabulary from Greek and Latin word elements.

140 Greek and Roman Mythology
Fall. 3(3-0)
Introduction to Greek and Roman myths, with emphasis on myth as social discourse and as an influence on ancient poets and thinkers.

210 Greek Civilization
Fall. 3(3-0)
General survey of salient aspects of ancient Greek civilization and modern approaches to its study.

211 Roman Civilization
Spring. 3(3-0) SA: CLA 310
Ancient Roman civilizations and modern approaches to their study.

292 Introduction to Ancient Studies
Fall. 2(1-2) Interdepartmental with Arts and Letters; History of Art; History. Administered by Arts and Letters.
Methods and current trends in the study of the Greek and Roman world. Visits to library and museum collections.

350 Greek and Roman Literature in English Translation
Fall of even years. 3(3-0) R: Not open to freshmen.
Representative works of major Greek and Roman authors.

360 Ancient Novel in English Translation
Spring of odd years. 3(3-0) R: Not open to freshmen.
Translation of the ancient Greek and Roman novel. Interpretation of assigned novels. The role of popular literature in Greco-Roman society.

400 Women in Classical Greek Society
Spring of odd years. 3(3-0) Interdepartmental with Women's Studies. R: Not open to freshmen or sophomores.
Image, role, and status of women in Greek society as seen through literary sources.

491 Topics in Classical Studies
Spring of even years. 3(3-0) P:NM: (CLA 210) R: Open only to juniors or seniors.
Special topics supplement regular course offerings.

499 Senior Thesis
Fall, Spring. 3(3-0) P:NM: (LTN 402) R: Approval of department.
Scholarly research and writing with a focus on specific problems, under faculty supervision.

COMMUNICATION   COM

Department of Communication
College of Communication Arts and Sciences

100 Human Communication
Fall, Spring, Summer. 3(3-0)
Process and functions of communication. Principles underlying communication behavior. Practice in analyzing communication situations and in speaking and writing.

200 Methods of Communication Inquiry
Fall, Spring, Summer. 4(3-2) P:NM: Completion of University mathematics requirement.
Nature and conduct of communication inquiry. Significant questions about communication and finding systematic answers.

225 An Introduction to Interpersonal Communication
Fall, Spring, Summer. 3(3-0)
Principles and practices of interpersonal communication. Emphasis on effective and responsible interpersonal communication.

240 Introduction to Organizational Communication
Fall, Spring, Summer. 4(4-0)
Theories, systems, structures and processes of organizational communication. Organizational cultures. Communication in multinational organizations and in individual, leadership, supervisor-subordinate and small group situations.

275 Effects of Mass Communication
Fall, Spring, Summer. 3(3-0) Interdepartmental with Telecommunication. Administered by Department of Telecommunication. RB: (TC 100) R: Not open to freshmen.
Major social effects of mass media on audience behavior. Political communication. Media effects on children. Message strategies producing attitude change. Interrelationships between mass media and interpersonal communication.

315 Information Gathering and Interviewing Theories
Fall of odd years. 3(3-0) R: Open only to juniors or seniors.
Information gathering as a relational process. Interaction through the asking and answering of questions.