## COMMUNICATION

## COM

## **Department of Communication** College of Communication Arts and Sciences

#### Human Communication 100.

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: MTH 110 or MTH 116 or designated score on mathematics placement test.

Nature and conduct of communication inquiry. Significant questions about communication and finding systematic answers.

## An Introduction to Interpersonal Communication

Fall, Spring, Summer. 3(3-0)

Principles and practices of interpersonal communication. Emphasis on effective and responsible interpersonal communication.

### Introduction to Organizational 240. 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.

## Effects of Mass Communication

Fall, Spring, Summer. 3(3-0) Interdepartmental with Telecommunication. Administered by Telecommunication.

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-numbered years. 3(3-0)

R: Open only to juniors and seniors.

Information gathering as a relational process. Interaction through the asking and answering of questions.

### Interpersonal Communication Theory 325. and Research

Fall, Spring. 3(3-0)

R: Open only to juniors and seniors.

Theories, processes and models of interpersonal communication. Topics include conflict resolution, deception, consensus, and uncertainty reduction in

### 340. Dyadic and Group Processes in Organizations

Spring. 3(3-0)

R: Open only to juniors and seniors.

Theory and research on dyadic and group relations within organizations. Topics include leadership, motivation, networks, decision making, and organizational taxonomy.

### 375. Audience Response to Mediated Communication

Spring. 3(3-0)

R: Open only to juniors and seniors.

Theory and research on audience responses to mediated communication including entertainment.

### 391. $Topics\ in\ Verbal\ or\ Intercultural$ Communication

Fall. 4(4-0) A student may earn a maximum of  $8\ credits\ in\ all\ enrollments\ for\ this\ course.$ 

P: One 200 level course in Communication. R: Not open to freshmen and sophomores.

Topics in cultural diversity and verbal interaction.

### Special Topics in Communication

Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.

P: One 200 level COM course. R: Not open to freshmen and sophomores.

Contemporary issues in communication.

### 425. Communication in Close Relationships

Fall, Spring. 4(4-0)

P: COM 225 or COM 325. R: Open only to junior, senior or graduate student Communication majors. Completion of Tier I writing requirement.

In-depth treatment of current research and of theoretical and methodological issues.

### Organizational Communication Structure (W)

Fall. 4(4-0)

P: COM 340. R: Open only to junior, senior or graduate student Communication majors. Completion of Tier I writing requirement.

Systems approaches to information processing and communication structures in organizations.

## Critical Perspectives in Communication Spring. 4(4-0)

P: One 200 level course in Communication. R: Not open to freshmen and sophomores.

Evaluation of efficacy of messages. Interdependence of communication and other societal factors, emphasizing criteria for ethical and social appropriateness.

### Communication Campaign Design and Analysis (W) Fall. 4(4-0)

R: Open only to junior, senior or graduate student Communication majors. Completion of Tier I writing requirement.

Design and analysis of campaigns presented through mediated channels including electronic and print me-

#### Independent Study 490.

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course.

P: One 200 level COM course. R: Not open to freshmen and sophomores. Approval of department; application required.

Directed study under faculty supervision.

### 493. Internship

Fall, Spring, Summer. 1 to 7 credits. A student may earn a maximum of 7 credits in all enrollments for this course.

R: Open only to Communication majors. Approval of department; application required.

Supervised practical experience in a professional environment.

### Practicum in Communication Research 494. and Instruction

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

R: Open only to Communication majors. Approval of department; application required.

Structured participation in departmental research teams and applied practice in the community.

### 800. Communication Programs and Evaluation

Fall. 3(3-0)

Communication audits, training and development, and focus groups as they apply to the evaluation of communication programs and institutions. Related topics include interviewing, questionnaire design and formative evaluation.

# Communication Research I

Fall. 4(4-0)

Communication research strategy and methodology. Scientific process. Derivation and test of hypotheses. Methods of research design.

#### 802. Communication Research II

Spring. 4(4-0)

P: COM 801.

Further consideration of communication research strategy and methodology. Topics include systems theory, cybernetics, and transactional approach.

### Organizational Communication I Fall. 3(3-0)

Emphasis on dyadic and group processes and organizational intervention strategies. Topics include managing diversity, organizational structure, and communication productivity.

### Communication Theory and Process Fall. 3(3-0)

Theoretical models of communication with emphasis on the applications of communication theory to various professional communication areas.

### Cross-Cultural Communication Spring. 3(3-0)

Problems in communicating across cultural boundaries. Role of communication in the economic, social, and political development of less developed countries.

#### 855. Codes and Code Systems

Spring. 4(4-0)

Structure and function of verbal and nonverbal communication. Relationship between discourse and context. Generation of meaning through interaction.

## Persuasion

Fall. 3(3-0)

Use of messages to gain compliance and effect social change. Persuasion and attitude change from classical theories to contemporary situations.

### Independent Study

Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

R: Approval of department.

Individualized study under faculty direction.

Internship Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

R: Open only to graduate students in Communication. Supervised experience in an applied-communication setting.

## Master's Thesis Research

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 14 credits in all enrollments

R: Open only to graduate students in Communication.

### 901. Communication Research Design I Fall. 4(4-0)

P: One introductory research design or statistics course. Methods of data collection and analysis. Writing and critiquing research reports.

### 902. Communication Research Design II Spring. 4(4-0)

P: COM 901. R: Open only to graduate students. Further study of methods of data collection and analysis. Writing and critiquing research reports.

### Organizational Communication II

Spring of odd-numbered years. 3(3-0) P: COM 815; COM 800 or COM 902.

Organizational communication structure and information processing. The organization's embeddedness in a larger social environment.

#### 921. Micro and Macro Media

Fall of odd-numbered years. 3(3-0)

P: COM 800 or COM 902.

Perspectives on media processes pertaining to individuals, groups, and large-scale systems. Topics include cognitive processing of media, public opinion and affective responses to media.

### Interpersonal Communication 922

Fall.  $\hat{3}(3-0)$ 

P: COM 800 or COM 902.

Theory and research in interpersonal communication. Role of communication in processes such as interpersonal influence and relationship development.

#### 990. 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 graduate students in Communication. Approval of department.

Individualized study under faculty direction.

#### 999. Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

R: Open only to Ph.D. students in Communication.

# COLLEGE OF **COMMUNICATION ARTS** AND SCIENCES

CAS

## **College of Communication Arts** and Sciences

Special Topics

Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 16 credits in all enrollments for this course.

R: Approval of department.

Varied topics pertaining to the study of communication processes.

## Special Topics

Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 16 credits in all enrollments for this course.

R: Open only to graduate students in the College of Communication Arts and Sciences or approval of col-

Varied topics pertaining to advanced study of communication processes.

#### 992. Doctoral Seminar

Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 15 credits in all enrollments for this course.

R: Open only to Ph.D. students in Mass Media and Communication or approval of college.

Topics on theoretical and research issues in communication and mass media.

#### 993. Research Internship

Fall, Spring, Summer. 1 credit. A student may earn a maximum of 6 credits in all enrollments for this course.

R: Open only to Ph.D. students in Mass Media. Participation in faculty research projects.

## Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

R: Open only to Ph.D. students in Mass Media.

### **COMPUTER SCIENCE CPS**

## **Department of Computer Science** College of Engineering

### Computing Concepts and Competencies Fall, Spring, Summer. 3(2-2)

Core concepts in computing including information storage, retrieval, management, and representation. Applications from specific disciplines. Applying core concepts to design and implement solutions to various focal problems, using ha rdware, multimedia software, communication and networks. SA: CPS 100, CPS 130

## Introduction to Technical Computing Fall, Spring. 3(2-2)

P: MTH 103 or MTH 110 or MTH 116: or MTH 120 or MTH 124 or MTH 132 or concurrently.

Computing systems and applications. Design and implementation of programs using FORTRAN. Examples from engineering, mathematics and science.

#### 230. Algorithms and Computing

Fall, Spring. 4(3-2)

P: LBS 118 or MTH 120 or MTH 124 or MTH 132. Computer systems and problem solving. Software development. Structured design and implementation of algorithms. Procedural and object-oriented programming. Compilation and linking.

### Discrete Structures in Computer Science

Fall, Spring. 3(3-0)

P: MTH 133.

Propositional and first order logic. Equivalence, inference. Mathematical induction, diagonalization principle. Set operations, relations, functions. Lattices, Boolean algebras. Truth tables and minimization of Boolean expressions. Appl ications to CPS.

## Independent Study in Computer Science

Fall, Spring. 1 credit. A student may earn a maximum of 3 credits in all enrollments for this course.  $R: Approval\ of\ department;\ application\ required.$ Supervised individual study in an area of computer

#### 291. Selected Topics in Computer Science

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this

R: Approval of department.

Topics selected to supplement and enrich existing courses and lead to the development of new courses.

### 320. Computer Organization and Assembly Language Programming

Fall, Spring. 4(3-2)

P: CPS 230, CPS 260. R: Not open to students with credit in EE 331.

Machine representation of data and instructions. Machine organization, primary storage, registers, arithmetic logic unit, control unit, operations. Assembly language programming, interface to high level languages. Assemblers and loaders.

### 330. Data Structures and Programming Concepts

Fall, Spring. 4(3-2)

P: CPS 230, CPS 260.

Data types and structures. Algorithms including searching, sorting and hashing. Program correctness, program analysis. Abstract data types including stacks, queues, and trees. Object-oriented programming, introduction to various program libraries.

### 360. Automata and Formal Language

Fall, Spring. 3(3-0)

P: CPS 230, CPS 260. R: Open only to Computer Science, Computer Engineering, Computational Mathematics, Electrical Engineering, and LBS Computer Science students.

Regular languages, regular grammars, finite-state automata, transducers and relationships among them. Context-free languages and grammars. Language recognition, parsers. Properties of formal languages. Turing computability and undecidab ility.

#### 410. Operating Systems

Fall, Spring. 4(3-2)
P: CPS 330; CPS 320 or EE 331. R: Open only to Computer Science, Computer Engineering, Electrical Engineering, and LBS Computer Science majors.

History and evolution of operating systems. Process and processor management. Primary and auxiliary storage management. Performance evaluation, security, distributed systems. Case studies of modern operating systems.

## Computer Architecture

Fall, Spring. 4(3-2)

P: CPS 330; EE 331 or CPS 320, CPS 360. R: Open only to Computer Science, Computer Engineering, Electrical Engineering, and LBS Computer Science majors. Digital logic and sequential machine design. Computer organization, control unit and arithmetic logic unit

implementation. Input-output, memory organization, parallel operations. Digital system simulation.

## Computer Networks

Fall, Spring. 4(3-2)

P: STT 351; CPS 320 or EE 331; CPS 410 or concurrently. R: Open only to juniors or seniors in the Computer Science or Computer Engineering or Electrical Engineering or LBS Computer Science major.

Computer network architectures and models. Medium access control. Physical, data link, network, transport, and session layers. Local-area and wide-area networks.

### 440. Artificial Intelligence and Symbolic Program ming

Fall. 4(3-2)

P: CPS 330, CPS 360. R: Open only to Computer Science, Computer Engineering, and LBS Computer Science majors.

Machine intelligence. Heuristic programming. Representation and control in LISP and PROLOG. Applications to search, rule-based diagnosis, and parsing.

# Design of Intelligent Systems (W)

Spring. 4(2-4)

P: CPS 440; CPS 320 or EE 331. R: Open only to seniors or graduate students in a College of Engineering Computer Science major. Completion of Tier I writing requirement. Not open to students with credit in CPS 479

Intelligent system applications such as natural language, machine vision, or a diagnostic expert system. Team development, software engineering, project management.