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COLLEGE OF HEALTH AND HUMAN SCIENCES

Course Revision

Page 166, 2016-17 Graduate Catalog

UHHS 770. INDEPENDENT STUDY (1-3). Independent course work focusing on student's Individual Program of Study. Multiple sections may be taken in same semester. A maximum of 152 hours may count toward the degree. PRQ: Consent of adviser program.

COLLEGE OF LIBERAL ARTS AND SCIENCES

Department of Computer Science

New Courses Page 225, 2016-17 Graduate Catalog

CIP: 11.0202

502. PROGRAMMING PRINCIPLES IN JAVA (3). Object-oriented programming in Java, including class definitions, collections, streams, I/O, multi-threading, graphical applets, and Internet-based distributed client-server database applications. Implementation using an editor (on Linux) and an IDE (e.g., NetBeans on Windows). Extensive laboratory work. May not be taken by students with undergraduate credit for CSCI 470. PRQ: Admission to the graduate program in computer science or consent of department.

503. PROGRAMMING PRINCIPLES IN PYTHON (3). Application of programming principles using the Python language. Covers fundamental elements of the object-oriented model, briefly introduces the functional programming paradigm, and illustrates concepts with a Python workflow including IPython Notebooks. Extensive laboratory work. PRQ: Admission to the graduate program in computer science or consent of department.

505. PROGRAMMING PRINCIPLES IN PERL (3). Perl is a high-level, general-purpose, interpreted, and dynamic programming language. Topics include text processing and file manipulation. Extensive laboratory work. May not be taken by students with undergraduate credit in CSCI 490K. PRQ: Admission to the graduate program in computer science or consent of department.

New Course

Page 225, 2016-17 Graduate Catalog

CIP: 11.0201

515. PRINCIPLES OF COMPILERS (3). Introduction to parser and compiler construction. Topics include formal languages and grammars, lexical analyzers, and parsers, including stack-based, bottom-up, top-down, recursive descent, and table driven approaches. Code generation for arithmetic expressions, basic

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variables, decisions, loops, functions, symbol tables, error checking, register allocation techniques, arrays and records, recursion, scope, object-oriented issues, I/O, exception handling, and optimization techniques. Extensive laboratory work with a focus on compiler development. CRQ: CSCI 501 or CSCI 502 or consent of department.

New Courses

Page 226, 2016-17 Graduate Catalog

CIP: 11.0101

600. BIG IDEAS IN COMPUTER SCIENCE (1). Lectures and discussions of current research and technical developments in computer science for beginning graduate research students. Topics will emphasize open problems and recent scientific advances. Content may vary to reflect research advances in areas such as data analytics, scientific computing, graphics and visualization. S/U grading. PRQ: Admission to the graduate program in computer science or consent of department.

626. HUMAN COMPUTER INTERACTION (3). Introduction to the study of human-computer interaction, presenting historical information and abstract knowledge and how to apply it in the everyday world. Students will gain an uUnderstanding of the term user and how to construct an incredible user experience. As part of the course students will be eExposure to ed the cognitive components that influence the experience, how to design for these components given a desired outcome, and how to evaluate the final product. PRQ: Admission to the graduate program in computer science or consent of department.

New Course

Page 226, 2016-17 Graduate Catalog

CIP: 11.1002

639. NETWORK THEORY (3). Covers recent research on the structure and analysis of networks, and on models and algorithms that abstract their key properties. The tThree main topics are network analysis and mining (e.g., community detection, degree distribution), design of networks (e.g., small-world and scale-free models), and networks as computational models (e.g., disease spread, fuzzy cognitive maps). Students will learn and apply Application of research tools in network theory to work on open problems (e.g. in social networks, biological networks or telecommunication networks), and will perform extensive programming in the course of their through research experience. Extensive laboratory work. CRQ: CSCI 503 or consent of department.

New Course

Page 226, 2016-17 Graduate Catalog

CIP: 11.0601

651. GRAPH THEORY AND APPLICATIONS (3). Introduction to graph theory and applications. Topics include trees, cycles, paths, colorings, connectivity, matchings, coverings, planar graphs, network flows, and their applications to sciences. PRQ: Admission to the graduate program in computer science or

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consent of department.

New Course

Page 226, 2016-17 Graduate Catalog

CIP: 11.0102

656. ARTIFICIAL INTELLIGENCE (3). Heuristic algorithms for solving real-world problems and approximating human intelligence. Basic concepts and methods for knowledge representation, heuristic problem solving and automated learning. Exposure to a variety of domains in which artificial intelligence is used. Extensive laboratory work. CRQ: CSCI 503 or consent of department.

657. NATURAL LANGUAGE PROCESSING I (3). Methods for computer processing of human language at the character, word and sentence level. Basic algorithms for spell checking, part of speech tagging and parsing. Approaches to research in NLP, including selection of machine learning algorithms and statistics. Extensive laboratory work. CRQ: CSCI 503 or consent of department.

658. NATURAL LANGUAGE PROCESSING II (3). Advanced topics in computer processing of human language. Topics may vary by semester and may. Possible topics include spoken language understanding and generation, statistical machine translation, and language processing of large-scale files, including reference resolution and question answering. Extensive laboratory work. PRQ: CSCI 657 or consent of department.

New Course

Page 227, 2016-17 Graduate Catalog

CIP: 11.0701

701. RESEARCH METHODS IN COMPUTER SCIENCE (3). This www riting-intensive course work coverings the main aspects related to performing research in computer science: performing literature reviews in computer science, designing ethical and technically sound research projects for both experimental and theoretical computer science research, identifying and pursuing funding opportunities, and reporting scientific results to professional and lay audiences in forms ranging from presentations to (open source) software and articles. Topics related to being a member of the scientific community will also be introduced, such as the editorial process, seen both from the author's and editor's viewpoints. PRQ: Admission to the graduate program in computer science or consent of department.

Department of Sociology

New Course

Page 299, 2016-17 Graduate Catalog

CIP: 45.1101

672. ADVANCED TOPICS IN SOCIOLOGY (3). Advanced coverage of selected topics in sociology.

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May be repeated to a maximum of 12 semester hours as the topic changes. PRQ: Consent of department.

Course Revisions

Page 299, 2016-17 Graduate Catalog

672 595. PROSEMINAR IN SOCIOLOGY (3). Analysis and synthesis of current research, concepts, and issues in various areas. May be repeated to a maximum of 6 12 semester hours. PRQ: Consent of department.

770. SEMINAR IN SOCIOLOGICAL THEORY (3). Analyses of viewpoints, such as functionalism, systems theory, conflict theory, symbolic interactionism, or areas such as logic of research, social change, sociology of knowledge, or other topics. May be repeated to a maximum of 9 semester hours. PRQ: SOCI 595 or SOCI 671 or SOCI 672, or consent of department.

Other Catalog Change

Page 297, 2016-17 Graduate Catalog

Master of Arts in Sociology

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Students must earn an overall GPA of 3.00 or higher and a minimum grade of B- in SOCI 670, SOCI 671, SOCI 674, SOCI 675, SOCI 675, SOCI 677.

The M.A. degree requires the successful completion of 33 credits, including 6 credits of a capstone experience: either SOCI 602 (Internship) or SOCI 699 (Thesis). All new master's students are required to consult with the departmental graduate adviser before being admitted to courses.

No more than 12 semester hours in 500-level graduate courses may be included in the student's program for the master's degree.

Each sStudents who intend to complete the internship capstone must pass a comprehensive examination in sociological theory and research methods that is administered and assessed in conjunction with the thesis proposal.

General Sociology (33)

SOCI 670 - Classical Sociological Theory (3)

SOCI 671 - Contemporary Sociological Theory (3)

SOCI 674 - The Research Process in Sociology (3)

SOCI 675 - Quantitative Analysis (3)

SOCI 676 - Advanced Quantitative Analysis (3)

SOCI 677 - Qualitative Research Methods in Sociology (3)

SOCI 699 - Master's Thesis (1-6)

OR SOCI 602 - Internship (3–6)

Students must take this one of these capstone courses for 6 semester hours.

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Specialization in Criminology (33)

SOCI 670 - Classical Sociological Theory (3)

SOCI 671 - Contemporary Sociological Theory (3)

SOCI 674 - The Research Process in Sociology (3)

SOCI 675 - Quantitative Analysis (3)

SOCI 676 - Advanced Quantitative Analysis (3)

SOCI 677 - Qualitative Research Methods in Sociology (3)

SOCI 681 - Theories of Delinquency and Crime (3)

SOCI 689 - Criminal Justice in Society (3)

SOCI 699 - Master's Thesis (1-6)

OR SOCI 602 - Internship (3-6)

Students must take this one of these capstone courses for 6 semester hours.

Two electives in criminology selected from graduate offerings in consultation with the graduate adviser (6)