Information (INFO)

Courses

INFO C8 Foundations of Data Science 4 Units

Terms offered: Spring 2018, Fall 2017, Summer 2017 8 Week Session
Foundations of data science from three perspectives: inferential thinking, computational thinking, and real-world relevance. Given data arising from some real-world phenomenon, how does one analyze that data so as to understand that phenomenon? The course teaches critical concepts and skills in computer programming and statistical inference, in conjunction with hands-on analysis of real-world datasets, including economic data, document collections, geographical data, and social networks. It delves into social and legal issues surrounding data analysis, including issues of privacy and data ownership.
Foundations of Data Science: Read More [+]

Rules & Requirements

Prerequisites: This course may be taken on its own, but students are encouraged to take it concurrently with a data science connector course (numbered 88 in a range of departments)

Hours & Format

Fall and/or spring: 15 weeks - 3-3 hours of lecture and 2-2 hours of laboratory per week

Summer: 8 weeks - 6 hours of lecture and 4 hours of laboratory per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Also listed as: COMPSCI C8/STAT C8

Foundations of Data Science: Read Less [-]

INFO W18 Python Fundamentals for Data Science 4 Units

Terms offered: Summer 2017 10 Week Session, Summer 2016 10 Week Session
A fast-paced introduction to the Python programming language geared toward students of data science. The course introduces a range of Python objects and control structures, then builds on these with classes on object-oriented programming. The last section of the course is devoted to Python's system of packages for data analysis. Students will gain experience in different styles of programming, including scripting, object-oriented design, test-driven design, and functional programming. Aside from Python, the course also covers use of the command line, coding and presentation with Jupyter notebooks, and source control with Git and GitHub.
Python Fundamentals for Data Science: Read More [+]

Rules & Requirements

Prerequisites: Previous experience in a general-purpose programming language is strongly recommended

Hours & Format

Summer: 10 weeks - 6 hours of web-based lecture per week

Online: This is an online course.

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Alternative to final exam.

Instructor: Laskowski

Python Fundamentals for Data Science: Read Less [-]

INFO 88A Data and Ethics 2 Units

Terms offered: Spring 2017, Fall 2016, Spring 2016
This course provides an introduction to critical and ethical issues surrounding data and society. It blends social and historical perspectives on data with ethics, policy, and case examples to help students develop a workable understanding of current ethical issues in data science. Ethical and policy-related concepts addressed include: research ethics; privacy and surveillance; data and discrimination; and the “black box” of algorithms. Importantly, these issues will be addressed throughout the lifecycle of data--from collection to storage to analysis and application. Course assignments will emphasize researcher and practitioner reflexivity, allowing students to explore their own social and ethical commitments.
Data and Ethics: Read More [+]
Objectives Outcomes

Student Learning Outcomes: Upon completion of the course, students will be able to critically assess their own work and education in the area of data science.
Upon completion of the course, students will be able to identify and articulate basic ethical and policy-based frameworks.
Upon completion of the course, students will understand the relationship between data, ethics, and society

Rules & Requirements

Prerequisites: This course is meant to be taken concurrently with Computer Science C8/Statistics C8/Information C8. Students may take more than one 88 (data science connector) course if they wish, ideally concurrent with or after having taken the C8 course

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of lecture per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Alternative to final exam.

Data and Ethics: Read Less [-]

INFO 98 Directed Group Study for Lower Division Undergraduates 1 - 4 Units

Terms offered: Spring 2015, Fall 2014, Spring 2014
Lectures and small group discussions focusing on topics of interest, varying from semester to semester.
Directed Group Study for Lower Division Undergraduates: Read More [+]
Rules & Requirements

Repeat rules: Course may be repeated for credit.

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of directed group study per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Directed Group Study for Lower Division Undergraduates: Read Less [-]

INFO 103 History of Information 3 Units

Terms offered: Spring 2018, Spring 2017
This course explores the history of information and associated technologies, uncovering why we think of ours as "the information age." We will select moments in the evolution of production, recording, and storage from the earliest writing systems to the world of Short Message Service (SMS) and blogs. In every instance, we'll be concerned with both what and when and how and why, and we will keep returning to the question of technological determinism: how do technological developments affect society and vice versa?
History of Information: Read More [+]
Rules & Requirements

Prerequisites: Upper level undergraduates

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Summer: 6 weeks - 7.5 hours of lecture per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructors: Duguid, Nunberg

Formerly known as: Information C103/Cognitive Science C103/History C192/Media Studies C104C

History of Information: Read Less [-]

INFO 159 Natural Language Processing 3 Units

Terms offered: Fall 2017
This course introduces students to natural language processing and exposes them to the variety of methods available for reasoning about text in computational systems. NLP is deeply interdisciplinary, drawing on both linguistics and computer science, and helps drive much contemporary work in text analysis (as used in computational social science, the digital humanities, and computational journalism). We will focus on major algorithms used in NLP for various applications (part-of-speech tagging, parsing, coreference resolution, machine translation) and on the linguistic phenomena those algorithms attempt to model. Students will implement algorithms and create linguistically annotated data on which those algorithms depend.
Natural Language Processing: Read More [+]
Rules & Requirements

Prerequisites: Computer Science 61B; Computer Science 70, Math 55, Statistics 134 or Statistics 140; strong programming skills

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Final exam required.

Instructor: Bamman

Natural Language Processing: Read Less [-]

INFO C167 Virtual Communities/Social Media 4 Units

Terms offered: Spring 2018, Fall 2017, Spring 2017
With the advent of virtual communities and online social networks, old questions about the meaning of human social behavior have taken on renewed significance. Using a variety of online social media simultaneously, and drawing upon theoretical literature in a variety of disciplines, this course delves into discourse about community across disciplines. This course will enable students to establish both theoretical and experiential foundations for making decisions and judgments regarding the relations between mediated communication and human community.
Virtual Communities/Social Media: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Final exam not required.

Also listed as: SOCIOL C167

Virtual Communities/Social Media: Read Less [-]

INFO 190 Special Topics in Information 1 - 3 Units

Terms offered: Spring 2018, Fall 2017, Spring 2017
A seminar focusing on topics of current interest. Topics will vary. A seminar paper will be required. Open to students from other departments.
Special Topics in Information: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 1-3 hours of seminar per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Letter grade. Alternative to final exam.

Special Topics in Information: Read Less [-]

INFO 198 Directed Group Study for Advanced Undergraduates 1 - 4 Units

Terms offered: Spring 2015, Fall 2014, Spring 2014
Directed Group Study for Advanced Undergraduates: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit.

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of directed group study per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Directed Group Study for Advanced Undergraduates: Read Less [-]

INFO 199 Individual Study 1 - 4 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015
Individual study of topics in information management and systems under faculty supervision.
Individual Study: Read More [+]
Rules & Requirements

Credit Restrictions: Enrollment is restricted; see the Introduction to Courses and Curricula section of this catalog.

Repeat rules: Course may be repeated for credit.

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of independent study per week

Additional Details

Subject/Course Level: Information/Undergraduate

Grading/Final exam status: Offered for pass/not pass grade only. Final exam not required.

Individual Study: Read Less [-]

INFO 202 Information Organization and Retrieval 2 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
This course introduces the intellectual foundations of information organization and retrieval: conceptual modeling, semantic representation, vocabulary and metadata design, classification, and standardization, as well as information retrieval practices, technology, and applications, including computational processes for analyzing information in both textual and non-textual formats.
Information Organization and Retrieval: Read More [+]
Rules & Requirements

Prerequisites: Students should have a working knowledge of the Python programming language

Hours & Format

Fall and/or spring: 8 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Bamman

Information Organization and Retrieval: Read Less [-]

INFO 203 Social Issues of Information 2 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
This course is designed to be an introduction to the topics and issues associated with information and information technology and its role in society. Throughout the semester we will consider both the consequence and impact of technologies on social groups and on social interaction and how society defines and shapes the technologies that are produced. Students will be exposed to a broad range of applied and practical problems, theoretical issues, as well as methods used in social scientific analysis. The four sections of the course are: 1) theories of technology in society, 2) information technology in workplaces 3) automation vs. humans, and 4) networked sociability.
Social Issues of Information: Read More [+]
Hours & Format

Fall and/or spring: 8 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Burrell

Social Issues of Information: Read Less [-]

INFO 205 Information Law and Policy 2 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
This course uses examples from various commercial domains—retail, health, credit, entertainment, social media, and biosensing/quantified self—to explore legal and ethical issues including freedom of expression, privacy, research ethics, consumer protection, information and cybersecurity, and copyright. The class emphasizes how existing legal and policy frameworks constrain, inform, and enable the architecture, interfaces, data practices, and consumer facing policies and documentation of such offerings; and, fosters reflection on the ethical impact of information and communication technologies and the role of information professionals in legal and ethical work.
Information Law and Policy: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor required for nonmajors

Hours & Format

Fall and/or spring: 7 weeks - 4 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Mulligan

Information Law and Policy: Read Less [-]

INFO 206 Software Prototyping for Data Science and Information Management 2 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
This course introduces software skills used in building prototype scripts for applications in data science and information management. The course gives an overview of procedural programming, object-oriented programming, and functional programming techniques in the Python scripting language, together with an overview of fundamental data structures, associated algorithms, and asymptotic performance analysis. Students will watch a set of instructional videos covering material and will have four hours of laboratory-style course contact each week.
Software Prototyping for Data Science and Information Management: Read More [+]

Rules & Requirements

Prerequisites: Consent of instructor for nonmajors

Credit Restrictions: Course must be completed for a letter grade to fulfill degree requirements.

Hours & Format

Fall and/or spring: 7 weeks - 4 hours of laboratory per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Tygar

Software Prototyping for Data Science and Information Management: Read Less [-]

INFO 213 User Interface Design and Development 4 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
User interface design and human-computer interaction. Examination of alternative design. Tools and methods for design and development. Human computer interaction. Methods for measuring and evaluating interface quality.
User Interface Design and Development: Read More [+]

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

User Interface Design and Development: Read Less [-]

INFO 214 Needs and Usability Assessment 3 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
Concepts and methods of needs and usability assessment. Understanding users' needs and practices and translating them into design decisions. Topics include methods of identifying and describing user needs and requirements; user-centered design; user and task analysis; contextual design; heuristic evaluation; surveys, interviews, and focus groups; usability testing; naturalistic/ethnographic methods; managing usability in organizations; and universal usability.
Needs and Usability Assessment: Read More [+]

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Needs and Usability Assessment: Read Less [-]

INFO 216 Computer-Mediated Communication 3 Units

Terms offered: Fall 2016, Spring 2016, Spring 2015
This course covers the practical and theoretical issues associated with computer-mediated communication (CMC) systems (e.g., email, newsgroups, wikis, online games, etc.). We will focus on the analysis of CMC practices, the relationship between technology and behavior, and the design and implementation issues associated with constructing CMC systems. This course primarily takes a social scientific approach (including research from social psychology, economics, sociology, and communication).
Computer-Mediated Communication: Read More [+]

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Cheshire

Computer-Mediated Communication: Read Less [-]

INFO 218 Concepts of Information 3 Units

Terms offered: Spring 2018, Spring 2016, Spring 2015
As it's generally used, "information" is a collection of notions, rather than a single coherent concept. In this course, we'll examine conceptions of information based in information theory, philosophy, social science, economics, and history. Issues include: How compatible are these conceptions; can we talk about "information" in the abstract? What work do these various notions play in discussions of literacy, intellectual property, advertising, and the political process? And where does this leave "information studies" and "the information society"?
Concepts of Information: Read More [+]
Rules & Requirements

Prerequisites: Graduate standing

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructors: Duguid, Nunberg

Concepts of Information: Read Less [-]

INFO 219 Privacy, Security, and Cryptography 3 Units

Terms offered: Fall 2017, Fall 2013, Fall 2012
Policy and technical issues related to insuring the accuracy and privacy of information. Encoding and decoding techniques including public and private key encryption. Survey of security problems in networked information environment including viruses, worms, trojan horses, Internet address spoofing.
Privacy, Security, and Cryptography: Read More [+]
Rules & Requirements

Prerequisites: Graduate standing in the School of Information or consent of instructor

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Tygar

Privacy, Security, and Cryptography: Read Less [-]

INFO 225 Managing in Information-Intensive Companies 3 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
This course focuses on managing people in information-intensive firms and industries, such as information technology industries. Topics include managing knowledge workers; managing teams (including virtual ones); collaborating across disparate units, giving and receiving feedback; managing the innovation process (including in eco-systems); managing through networks; and managing when using communication tools (e.g., tele-presence). The course relies heavily on cases as a pedagogical form.
Managing in Information-Intensive Companies: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Hansen

Managing in Information-Intensive Companies: Read Less [-]

INFO 232 Applied Behavioral Economics for Information Systems 3 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
"Behavioral Economics" is one important perspective on how information impacts human behavior. The goal of this class is to deploy a few important theories about the relationship between information and behavior, into practical settings — emphasizing the design of experiments that can now be incorporated into many 'applications' in day-to-day life. Truly 'smart systems' will have built into them precise, testable propositions about how human behavior can be modified by what the systems tell us and do for us. So let's design these experiments into our systems from the ground up! This class develops a theoretically informed, practical point of view on how to do that more effectively and with greater impact.
Applied Behavioral Economics for Information Systems: Read More [+]
Rules & Requirements

Credit Restrictions: Students will receive no credit for Information 232 after completing Information 290 sect 6 (Fall 13).

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Weber

Applied Behavioral Economics for Information Systems: Read Less [-]

INFO 234 Information Technology Economics, Strategy, and Policy 3 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
Application of economic tools and principles, including game theory, industrial organization, information economics, and behavioral economics, to analyze business strategies and public policy issues surrounding information technologies and IT industries. Topics include: economics of information; economics of information goods, services, and platforms; strategic pricing; strategic complements and substitutes; competition models; network industry structure and telecommunications regulation; search and the "long tail"; network cascades and social epidemics; network formation and network structure; peer production and crowdsourcing; interdependent security and privacy.
Information Technology Economics, Strategy, and Policy: Read More [+]
Objectives Outcomes

Course Objectives:
INFO234 is a graduate level course in the school's topical area of Information Economics and Policy, and can be taken by the masters and doctoral students to satisfy their respective degree requirements.

Student Learning Outcomes:
Students will learn to identify, describe, and analyze business strategies and public policy issues of particular relevance to the information industry. Students will learn and apply economic tools and principles to analyze phenomena such as platform competition, social epidemics, and peer production, and current policy issues such as network neutrality and information privacy. Through integrated assignments and project work, the students will apply the theoretical concepts and analytic tools learned in lectures and readings to develop and evaluate a business model, product, or service of their choosing, e.g., a start-up idea they are pursuing.

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Chuang

Information Technology Economics, Strategy, and Policy: Read Less [-]

INFO 239 Technology and Delegation 3 Units

Terms offered: Fall 2017
The introduction of technology increasingly delegates responsibility to technical actors, often reducing traditional forms of transparency and challenging traditional methods for accountability. This course explores the interaction between technical design and values including: privacy, accessibility, fairness, and freedom of expression. We will draw on literature from design, science and technology studies, computer science, law, and ethics, as well as primary sources in policy, standards and source code. We will investigate approaches to identifying the value implications of technical designs and use methods and tools for intentionally building in values at the outset.
Technology and Delegation: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Mulligan

Technology and Delegation: Read Less [-]

INFO 247 Information Visualization and Presentation 4 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
The design and presentation of digital information. Use of graphics, animation, sound, visualization software, and hypermedia in presenting information to the user. Methods of presenting complex information to enhance comprehension and analysis. Incorporation of visualization techniques into human-computer interfaces. Course must be completed for a letter grade to fulfill degree requirements.
Information Visualization and Presentation: Read More [+]
Rules & Requirements

Prerequisites: Information 206, Computer Science 160, or knowledge of programming and data structures with consent of instructor

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Hearst

Information Visualization and Presentation: Read Less [-]

INFO 251 Applied Machine Learning 4 Units

Terms offered: Fall 2017

Provides a theoretical and practical introduction to modern techniques in applied machine learning. Covers key concepts in supervised and unsupervised machine learning, including the design of machine learning experiments, algorithms for prediction and inference, optimization, and evaluation. Students will learn functional, procedural, and statistical programming techniques for working with real-world data.

Applied Machine Learning: Read More [+]

Objectives Outcomes

Student Learning Outcomes: • Effectively design, execute, and critique experimental and non-experimental methods from statistics, machine learning, and econometrics.

• Implement basic algorithms on structured and unstructured data, and evaluate the performance of these algorithms on a variety of real-world datasets.

• Understand the difference between causal and non-causal relationships, and which situations and methods are appropriate for both forms of analysis.

• Understand the principles, advantages, and disadvantages of different algorithms for supervised and unsupervised machine learning.

Rules & Requirements

Prerequisites: Info 206, or equivalent course in Python programming; Info 271B, or equivalent graduate-level course in statistics or econometrics; or permission of instructor

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture and 1 hour of discussion per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Blumenstock

Applied Machine Learning: Read Less [-]

INFO 253 Web Architecture 3 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015

This course is a survey of Web technologies, ranging from the basic technologies underlying the Web (URI, HTTP, HTML) to more advanced technologies being used in the the context of Web engineering--for example, structured data formats and Web programming frameworks. The goal of this course is to provide an overview of the technical issues surrounding the Web today, and to provide a solid and comprehensive perspective of the Web's constantly evolving landscape.

Web Architecture: Read More [+]

Rules & Requirements

Prerequisites: Introductory programming

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Web Architecture: Read Less [-]

INFO 254 Data Mining and Analytics 3 Units

Terms offered: Spring 2018
This course introduces students to practical fundamentals of data mining and machine learning with just enough theory to aid intuition building. The course is project-oriented, with a project beginning in class every week and to be completed outside of class by the following week, or two weeks for longer assignments. The in-class portion of the project is meant to be collaborative, with the instructor working closely with groups to understand the learning objectives and help them work through any logistics that may be slowing them down. Weekly lectures introduce the concepts and algorithms which will be used in the upcoming project. Students leave the class with hands-on data mining and data engineering skills they can confidently apply.
Data Mining and Analytics: Read More [+]
Objectives Outcomes

Course Objectives: Conduct manual feature engineering (from domain knowledge) vs. machine induced featurization (representation learning). Develop intuition in various machine learning classification algorithms (e.g. decision trees, neural networks, recurrent neural networks, support vector machines), and clustering techniques (e.g. k-means, spectral, skip-gram).
Foster critical thinking about real world actionability from analytics.
Provide an overview of issues in research and practice that will shape the complexion of data science across a variety of domains.

Rules & Requirements

Prerequisites: Knowledge of basic Python programming

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Pardos

Data Mining and Analytics: Read Less [-]

INFO 256 Applied Natural Language Processing 3 Units

Terms offered: Fall 2016, Fall 2015, Fall 2014
This course examines the state-of-the-art in applied Natural Language Processing (also known as content analysis and language engineering), with an emphasis on how well existing algorithms perform and how they can be used (or not) in applications. Topics include part-of-speech tagging, shallow parsing, text classification, information extraction, incorporation of lexicons and ontologies into text analysis, and question answering. Students will apply and extend existing software tools to text-processing problems.
Applied Natural Language Processing: Read More [+]
Rules & Requirements

Prerequisites: Proficient programming in python (programs of at least 200 lines of code), proficient with basic statistics and probabilities

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Hearst

Applied Natural Language Processing: Read Less [-]

INFO 257 Database Management 3 Units

Terms offered: Spring 2018, Spring 2017, Fall 2015
Introduction to relational, hierarchical, network, and object-oriented database management systems. Database design concepts, query languages for database applications (such as SQL), concurrency control, recovery techniques, database security. Issues in the management of databases. Use of report writers, application generators, high-level interface generators.
Database Management: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Larson

Database Management: Read Less [-]

INFO 259 Natural Language Processing 3 Units

Terms offered: Fall 2017
This course introduces students to natural language processing and exposes them to the variety of methods available for reasoning about text in computational systems. NLP is deeply interdisciplinary, drawing on both linguistics and computer science, and helps drive much contemporary work in text analysis (as used in computational social science, the digital humanities, and computational journalism). We will focus on major algorithms used in NLP for various applications (part-of-speech tagging, parsing, coreference resolution, machine translation) and on the linguistic phenomena those algorithms attempt to model. Students will implement algorithms and create linguistically annotated data on which those algorithms depend.
Natural Language Processing: Read More [+]
Rules & Requirements

Prerequisites: Familiarity with data structures, algorithms, linear algebra, and probability

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Bamman

Natural Language Processing: Read Less [-]

INFO C260F Machine Learning in Education 3 Units

Terms offered: Fall 2017
This course covers computational approaches to the task of modeling learning and improving outcomes in Intelligent Tutoring Systems (ITS) and Massive Open Online Courses (MOOCs). We will cover theories and methodologies underpinning current approaches to knowledge discovery and data mining in education and survey the latest developments in the broad field of human learning research. The course is project based; teams will be introduced to online learning platforms and their datasets with the objective of pairing data analysis with theory or implementation. Literature review will add context and grounding to projects.
Machine Learning in Education: Read More [+]
Rules & Requirements

Prerequisites: Suggested background includes one programming course and familiarity with one statistical/computational software package

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Pardos

Also listed as: EDUC C260F

Machine Learning in Education: Read Less [-]

INFO C262 Theory and Practice of Tangible User Interfaces 4 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
This course explores the theory and practice of Tangible User Interfaces, a new approach to Human Computer Interaction that focuses on the physical interaction with computational media. The topics covered in the course include theoretical framework, design examples, enabling technologies, and evaluation of Tangible User Interfaces. Students will design and develop experimental Tangible User Interfaces using physical computing prototyping tools and write a final project report.
Theory and Practice of Tangible User Interfaces: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture and 1 hour of laboratory per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Ryokai

Also listed as: NWMEDIA C262

Theory and Practice of Tangible User Interfaces: Read Less [-]

INFO C263 Technologies for Creativity and Learning 3 Units

Terms offered: Spring 2015, Spring 2014
How does the design of new educational technology change the way people learn and think? How do we design systems that reflect our understanding of how we learn? This course explores issues on designing and evaluating technologies that support creativity and learning. The class will cover theories of creativity and learning, implications for design, as well as a survey of new educational technologies such as works in computer supported collaborative learning, digital manipulatives, and immersive learning environments.
Technologies for Creativity and Learning: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Ryokai

Also listed as: NWMEDIA C263

Technologies for Creativity and Learning: Read Less [-]

INFO C265 Interface Aesthetics 3 Units

Terms offered: Spring 2018, Spring 2017, Spring 2016
This course will cover new interface metaphors beyond desktops (e.g., for mobile devices, computationally enhanced environments, tangible user interfaces) but will also cover visual design basics (e.g., color, layout, typography, iconography) so that we have systematic and critical understanding of aesthetically engaging interfaces. Students will get a hands-on learning experience on these topics through course projects, design critiques, and discussions, in addition to lectures and readings.
Interface Aesthetics: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Ryokai

Also listed as: NWMEDIA C265

Interface Aesthetics: Read Less [-]

INFO 271B Quantitative Research Methods for Information Systems and Management 3 Units

Terms offered: Fall 2017, Spring 2017, Fall 2015
Introduction to many different types of quantitative research methods, with an emphasis on linking quantitative statistical techniques to real-world research methods. Introductory and intermediate topics include: defining research problems, theory testing, casual inference, probability, and univariate statistics. Research design and methodology topics include: primary/secondary survey data analysis, experimental designs, and coding qualitative data for quantitative analysis.
Quantitative Research Methods for Information Systems and Management: Read More [+]
Rules & Requirements

Prerequisites: Introductory statistics recommended

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Cheshire

Quantitative Research Methods for Information Systems and Management: Read Less [-]

INFO 272 Qualitative Research Methods for Information Systems and Management 3 Units

Terms offered: Fall 2016, Fall 2014, Fall 2012
Theory and practice of naturalistic inquiry. Grounded theory. Ethnographic methods including interviews, focus groups, naturalistic observation. Case studies. Analysis of qualitative data. Issues of validity and generalizability in qualitative research.
Qualitative Research Methods for Information Systems and Management: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Burrell

Qualitative Research Methods for Information Systems and Management: Read Less [-]

INFO 283 Information and Communications Technology for Development 3 Units

Terms offered: Spring 2017
This seminar reviews current literature and debates regarding Information and Communication Technologies and Development (ICTD). This is an interdisciplinary and practice-oriented field that draws on insights from economics, sociology, engineering, computer science, management, public health, etc.
Information and Communications Technology for Development: Read More [+]
Hours & Format

Fall and/or spring: 15 weeks - 3 hours of seminar per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Saxenian

Formerly known as: Information C283

Information and Communications Technology for Development: Read Less [-]

INFO 290 Special Topics in Information 1 - 4 Units

Terms offered: Spring 2018, Fall 2017, Spring 2017
Specific topics, hours, and credit may vary from section to section, year to year.
Special Topics in Information: Read More [+]
Rules & Requirements

Repeat rules: Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring:
7.5 weeks - 2-6 hours of lecture per week
15 weeks - 1-4 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Special Topics in Information: Read Less [-]

INFO 290A Special Topics in Information 1 or 2 Units

Terms offered: Fall 2016, Fall 2015, Fall 2014
Special Topics in Information: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit.

Hours & Format

Fall and/or spring:
5 weeks - 3 hours of lecture per week
6 weeks - 2 hours of lecture per week
8 weeks - 1.5-2 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Formerly known as: Information Systems and Management 290A

Special Topics in Information: Read Less [-]

INFO 290M Special Topics in Management 1 - 4 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
Specific topics, hours, and credit may vary from section to section and year to year.
Special Topics in Management: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit as topics in management vary. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring:
8 weeks - 2-6 hours of lecture per week
15 weeks - 1-4 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Special Topics in Management: Read Less [-]

INFO 290T Special Topics in Technology 1 - 4 Units

Terms offered: Spring 2018, Fall 2017, Spring 2017
Specific topics, hours, and credit may vary from section to section and year to year.
Special Topics in Technology: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit as topics in technology vary. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring:
8 weeks - 2-7.5 hours of lecture per week
15 weeks - 1-4 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Special Topics in Technology: Read Less [-]

INFO 290TA Information Organization Laboratory 3 Units

Terms offered: Fall 2016, Spring 2016, Fall 2015
Students will build tools to explore and apply theories of information organization and retrieval. Students will implement various concepts covered in the concurrent 202 course through small projects on topics like controlled vocabularies, the semantic web, and corpus analysis. We will also experiment with topics suggested by students during the course. Students will develop skills in rapid prototyping of web-based projects using Python, XML, and jQuery.
Information Organization Laboratory: Read More [+]
Rules & Requirements

Prerequisites: It is recommended that students take 202 concurrently, or have taken it in the past

Hours & Format

Fall and/or spring: 15 weeks - 3 hours of lecture per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Information Organization Laboratory: Read Less [-]

INFO 293 Curricular Practical Training for International Students 0.0 Units

Terms offered: Fall 2016, Summer 2016 10 Week Session, Spring 2016
This is a zero-unit independent study course for international students doing internships under the Curricular Practical Training program. The course will be individually supervised and must be approved by the head graduate adviser.
Curricular Practical Training for International Students: Read More [+]
Rules & Requirements

Repeat rules: Course may be repeated once.

Hours & Format

Fall and/or spring: 15 weeks - 0 hours of independent study per week

Summer: 10 weeks - 0 hours of independent study per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Curricular Practical Training for International Students: Read Less [-]

INFO 294 Doctoral Research and Theory Workshop 2 Units

Terms offered: Fall 2017
An intensive weekly discussion of current and ongoing research by Ph.D. students with a research interest in issues of information (social, legal, technical, theoretical, etc.). Our goal is to focus on critiquing research problems, theories, and methodologies from multiple perspectives so that we can produce high-quality, publishable work in the interdisciplinary area of information research. Circulated material may include dissertation chapters, qualifying papers, article drafts, and/or new project ideas. We want to have critical and productive discussion, but above all else we want to make our work better: more interesting, more accessible, more rigorous, more theoretically grounded, and more like the stuff we enjoy reading.
Doctoral Research and Theory Workshop: Read More [+]
Rules & Requirements

Prerequisites: PhD students only

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of workshop per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Instructor: Cheshire

Doctoral Research and Theory Workshop: Read Less [-]

INFO 295 Doctoral Colloquium 1 Unit

Terms offered: Spring 2018, Fall 2017, Spring 2017
Colloquia, discussion and readings designed to introduce students to the range of interests of the school.
Doctoral Colloquium: Read More [+]
Rules & Requirements

Prerequisites: Ph.D. standing in the School of Information

Hours & Format

Fall and/or spring: 15 weeks - 1 hour of colloquium per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Offered for satisfactory/unsatisfactory grade only.

Doctoral Colloquium: Read Less [-]

INFO 296A Seminar 2 - 4 Units

Terms offered: Spring 2018, Fall 2017, Spring 2017
Topics in information management and systems and related fields. Specific topics vary from year to year.
Seminar: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 2-4 hours of seminar per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Seminar: Read Less [-]

INFO 298 Directed Group Study 1 - 4 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015
Group projects on special topics in information management and systems.
Directed Group Study: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of directed group study per week

Summer: 8 weeks - 1.5-7.5 hours of directed group study per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Directed Group Study: Read Less [-]

INFO 298A Directed Group Work on Final Project 1 - 4 Units

Terms offered: Spring 2016, Spring 2015, Spring 2014
The final project is designed to integrate the skills and concepts learned during the Information School Master's program and helps prepare students to compete in the job market. It provides experience in formulating and carrying out a sustained, coherent, and significant course of work resulting in a tangible work product; in project management, in presenting work in both written and oral form; and, when appropriate, in working in a multidisciplinary team. Projects may take the form of research papers or professionally-oriented applied work.
Directed Group Work on Final Project: Read More [+]
Rules & Requirements

Prerequisites: Consent of instructor. Course must be taken for a letter grade to fulfill degree requirements

Hours & Format

Fall and/or spring: 15 weeks - 1-4 hours of directed group study per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Directed Group Work on Final Project: Read Less [-]

INFO 299 Individual Study 1 - 12 Units

Terms offered: Summer 2016 8 Week Session, Spring 2016, Fall 2015
Individual study of topics in information management and systems under faculty supervision.
Individual Study: Read More [+]

Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit as topic varies. Course may be repeated for credit when topic changes.

Hours & Format

Fall and/or spring: 15 weeks - 1-12 hours of independent study per week

Summer: 8 weeks - 2-22.5 hours of independent study per week

Additional Details

Subject/Course Level: Information/Graduate

Grading: Letter grade.

Individual Study: Read Less [-]

INFO 375 Teaching Assistance Practicum 2 Units

Terms offered: Fall 2017, Fall 2016, Fall 2015
Discussion, reading, preparation, and practical experience under faculty supervision in the teaching of specific topics within information management and systems. Does not count toward a degree.
Teaching Assistance Practicum: Read More [+]

Rules & Requirements

Repeat rules: Course may be repeated for credit as topic varies.

Hours & Format

Fall and/or spring: 15 weeks - 2 hours of lecture per week

Additional Details

Subject/Course Level: Information/Professional course for teachers or prospective teachers

Grading: Offered for satisfactory/unsatisfactory grade only.

Instructor: Duguid

Teaching Assistance Practicum: Read Less [-]

INFO 602 Individual Study for Doctoral Students 1 - 5 Units

Terms offered: Spring 2016, Fall 2015, Spring 2015
Individual study in consultation with the major field adviser, intended to provide an opportunity for qualified students to prepare themselves for the various examinations required of candidates for the Ph.D. degree.
Individual Study for Doctoral Students: Read More [+]

Rules & Requirements

Prerequisites: Consent of instructor

Repeat rules: Course may be repeated for credit.

Hours & Format

Fall and/or spring: 15 weeks - 1-5 hours of independent study per week

Additional Details

Subject/Course Level: Information/Graduate examination preparation

Grading: Offered for satisfactory/unsatisfactory grade only.

Individual Study for Doctoral Students: Read Less [-]