

Course Schedule - Fall 2006

Computer Science

498 **Special Topics in CS** credit: 0 to 4 hours.

Lectures in topics of current interest. See Schedule for current topics. Approved for both letter and S/U grading. May be repeated. Prerequisite: As specified for each topic offering, see Schedule or departmental course description.

CRN	Type	Section	Time	Days	Location	Instructor
43753	lecture	CG3	11:00 AM - 12:15 PM	TR	room 1103 Siebel Center for Comp Sci	Hu, Y
43753: 3 hours Topic: Computer Security. Prerequisite: CS 498, Information Assurance. This section is for either undergraduate or graduate students.						
40095	lecture	CG4	11:00 AM - 12:15 PM	TR	room 1103 Siebel Center for Comp Sci	Hu, Y
40095: 4 hours Topic: Computer Security. Prerequisite: CS 498, Information Assurance. This section is for graduate students only.						
43501	lecture	DP3	11:00 AM - 12:15 PM	WF	room 1131 Siebel Center for Comp Sci	Garzaran, M; Padua, D
43501: 3 hours Topic: Program Optimization: Prerequisites: CS 232 and CS 225. The course will cover techniques to improve program execution speed and energy consumption. The objective is to prepare students to program future systems where performance improvements will not be, as it was in the past, the direct result of faster clock rates, but must instead be laboriously obtained by applying programming techniques that effectively exploit parallelism and locality. This section is for either undergraduate or graduate students.						
40096	lecture	DP4	11:00 AM - 12:15 PM	WF	room 1131 Siebel Center for Comp Sci	Garzaran, M; Padua, D
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40094	lecture	PR3	09:30 AM - 10:45 AM	WF	room 1111 Siebel Center for Comp Sci	Prabhakaran, M
40094: 3 hours Topic: Theoretical Foundations of Cryptography This course is an introduction to the theoretical foundations of cryptography. Emphasis will be on rigorous mathematical definitions of security, and proofs of security. Prerequisite: CS 173 and 273 or consent of instructor. Some mathematical maturity will be						

expected. Familiarity with basic theory of computation and complexity theory will be helpful. This section is for undergraduate or graduate students.

47171	lecture	PR4	09:30 AM - 10:45 AM	WF	room 1111 Siebel Center for Comp Sci	Prabhakaran, M
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43368	lecture	SH3	11:00 AM - 12:15 PM	WF	room 1302 Siebel Center for Comp Sci	Hinrichs, S
43368: 3 hours Topic: Introductory Computer Security. Prerequisite: CS 225. This course introduces the fundamental principles of computer and communications security and information assurance. Topics include ethics, privacy, notions of threat, vulnerabilities, and risk in systems, malicious software, data secrecy and integrity issues, network security, and trusted computing. The course will cover mandatory, discretionary, and role-based access control policies as well as certification and accreditation of systems against security standards. Security mechanisms will include authentication, auditing, access control, confidentiality, non-repudiation, cryptography, protocols, availability, intrusion detection, and multilevel secure systems. This section is for undergraduate or graduate students.						
40098	lecture	SH4	11:00 AM - 12:15 PM	WF	room 1302 Siebel Center for Comp Sci	Hinrichs, S
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40091	lecture	SL3	12:30 PM - 01:45 PM	TR	room 1111 Siebel Center for Comp Sci	Lavalle, S
40091: 3 hours Topic: Planning Algorithms. Prerequisite: CS 473 or consent of instructor. This course provides an introduction to planning algorithms for both discrete and continuous spaces. Issues related to robotics, sensing, motion planning, and control theory will be addressed. A combination of theoretical and implementation issues will be considered. This section is for undergraduate or graduate students.						
40092	lecture	SL4	12:30 PM - 01:45 PM	TR	room 1111 Siebel Center for Comp Sci	Lavalle, S
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40093	lecture	SS3	09:30 AM - 10:45 AM	TR	room 1131 Siebel Center for Comp Sci	Sinha, S
<p>40093: 3 hours Topic: Algorithms in Bioinformatics. Prerequisite: Programming skills such as CS 225 as well as basic probability and statistics. This course will be geared towards undergraduate and Masters level students in computer science. We shall see how state-of-the-art techniques in computer science, especially in sequence analysis and machine learning, are applied to problems in bioinformatics. The student will learn how to formulate important biological problems as computable problems, and develop algorithms to solve such problems efficiently. An application-oriented project will give students hands-on experience with biological data sets. This section is for undergraduate or graduate students.</p>						
43670	lecture	SS4	09:30 AM - 10:45 AM	TR	room 1131 Siebel Center for Comp Sci	Sinha, S
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