

COURSE DESCRIPTION

Department and Course Number	<b>CS 499</b>	Course Coordinator	<b>Skjellum</b>
Course Title	<b>Senior Capstone</b>	Total Credits	<b>3</b>

Current Catalog Description

*A Capstone course comprising a series of lectures spanning the CIS curriculum by faculty and guest lectures on key topics in computer science together with lecture and in-depth discussion on computer ethics: further lectures and material on scientific inquiry, quantitative literacy and problem solving, all as they relate to the computer science field. Students take the Major Field Test in Computer Science as a requirement for completing this course. Writing is a significant part of this course, including term papers, and other significant writing assignments.*

Textbook

*Computers, Ethics, and Society, by M. D. Ermann and M. S. Shauf, Oxford Univ. Press, 2003.*

References *None*

Course Goals

*To recapitulate the key tenets of the undergraduate curriculum, cover topics in ethics and to interest students in continued advance learning in Computer Science after they graduate. Each student completes the Major Field Test Examination as part of this course as part of the Department's Learning Outcomes Assessment activities.*

Prerequisites by Topic

*Senior standing in the CIS major*

Major Topics Covered in the Course

*This course is a series of 13 lectures consisting of review of key topics of the entire curriculum of the CIS undergraduate major, plus special topics and computer ethics. Every faculty member of the department participates in one or more lectures.*

Laboratory projects (specify number of weeks on each)

*None*

Estimate CSAB Category Content

	CORE	ADVANCED		CORE	ADVANCED
Data Structures	2		Computer Organization and Architecture	4	
Algorithms Software Design	3		Concepts of Programming Languages	4	

Oral and Written Communications

*Every student is required to submit at least 5 written reports (not including exams, tests, quizzes, or commented programs) of typically 1 page and to make 1 oral presentation of typically 10 minutes duration. Include only material that is graded for grammar, spelling, style, and so forth, as well as for technical content, completeness, and accuracy.*

*This course emphasizes written lecture summaries and a final report on a specific subject in computer science of interest to the student, and pre-approved by the instructor.*

#### Social and Ethical Issues

*This course includes several lectures and extensive reading from the texts*

#### Theoretical Content

*A wide variety of theory is covered such as programming languages, algorithms, etc., across the series of lectures presented by faculty*

#### Problem Analysis

*None*

#### Solution Design

*None*