COURSE DESCRIPTION

Dept., Number	**CSCI 130**	Course Title	**Introduction to Computer Science**
Semester hours	3	Course Coordinator	Jean French
		URL (if any):	

Current Catalog Description

(Students are required to have a personal notebook computer for this course) Designed as a communication intensive introduction to Computer Science; provides a comprehensive overview of the field of Computer Science in areas such as machine architecture, data storage, data manipulation, operating systems, algorithms, programming languages, data structures, database structures, computational complexity, and artificial intelligence; includes a brief introduction to programming. Students will demonstrate mastery of the course materials through both written and oral assignments appropriate to a Communication Intensive course. (communication intensive core course). F, S, Su.

Textbook

J. Glenn Brookshear, *Computer Science – An Overview,9th Ed*.
ISBN 0-321-38701-5

References

Instructor's Blackboard site.

Course Goals

Upon completion, students should be able to

- Demonstrate an understanding of the basic theory of computer architectures, including computer hardware and networking.
- Demonstrate an understanding of data related topics including data definitions, data manipulation, data abstractions, data storage, and database systems.
- Demonstrate an understanding of using computer science for problem solving.
- Demonstrate an understanding of the importance and use of operating systems.
- Demonstrate an understanding of introductory software engineering and theory of computation concepts.
- Demonstrate an understanding of the use of algorithms in computer science.
- Demonstrate an improvement in communication skills.

Prerequisites by Topic

None

Major Topics Covered in the Course

APA Citations Plagiarism Data Storage Data Manipulation Operating Systems Networking & the Internet Algorithms Programming Languages (Not applied) Software Engineering Data Abstraction Database Systems Artificial Intelligence

Laboratory projects (specify number of weeks on each)

n/a

Estimate Curriculum Category Content (Semester hours)

Area	Core	Advanced	Area	Core	Advanced
Algorithms	.2		Data Structures	.1	
Software Design	0		Prog. Languages	.25	
Comp. Arch.	.1				

Oral and Written Communications

Every student is required to submit at least 2 written reports (not including exams, tests, quizzes, or commented programs) of typically 5 pages and to make 2 oral presentations of typically 5 minutes duration. Include only material that is graded for grammar, spelling, style, and so forth, as well as for technical content, completeness, and accuracy.

Social and Ethical Issues

Please list the topics that address the social and ethical implications of computing covered in all course sections. Estimate the class time spent on each topic. In what ways are the students in this course graded on their understanding of these topics (e.g., test questions, essays, oral presentations, and so forth)?

The class discusses the ease of plagiarism via the ability to easily copy and paste from the Web. The topic is covered several times. A quiz is dedicated to ethics (focused on plagiarism) in computer research.

Social implications of artificial intelligence is discussed, but not tested. Students presenting on the associated chapter on AI would address these issues in their oral presentations.

Theoretical Content

Please list the types of theoretical material covered, and estimate the time devoted to such coverage.

Algorithm design (approximately 10% of the course)

Problem Analysis

Please describe the analysis experiences common to all course sections.

Students are required solve problems in binary and know how to approach which binary problems in which system.

Solution Design

Please describe the design experiences common to all course sections.

n/a