

CSCI 380: Computer Architecture

Abbreviated Syllabus for Spring Semester 2004

Visit <http://www.ecst.csuchico.edu/~juliano/csci380> for additional detail.

Prerequisites

- CSCI 280 (Digital Logic Design Theory)
- *Classified* graduate-level standing or permission of instructor

Description

This graduate-level course focuses on advanced topics in the design and analysis of computer architectures. The course is designed to facilitate investigation of techniques of quantitative analysis and evaluation of modern computing systems, such as

the selection of appropriate benchmarks to reveal and compare the performance of alternative design choices in system design. The emphasis is on the major component subsystems of high performance computers: pipelining, instruction-level parallelism, memory hierarchies, storage systems, and network-oriented interconnections. Issues pertaining to the architectural design of highly portable, power-limited computing systems will also be covered. Students will have an opportunity to conduct research in these and other related areas in the field of computer architecture.

TRACS Call #	Section	Act	Days	Time	Room	Instructor
10985	CSCI 380-01	DIS	TR	12:30 pm – 1:45 pm	OCNL 124	Dr. J Juliano@csuchico.edu

Instructor Information

Dr. Benjoe A. Juliano (*a.k.a.* Dr. J)
<http://www.ecst.csuchico.edu/~juliano>

quired reading for this course. (Note: The reading list includes seminal computer architecture papers that may be referred to in the department's Master's examination.)

Office Hours: T.B.A.
OCNL 222
Tel 530 898-4619 / 6442 (dept office)
Fax 530 898-5995
Appointments and walk-ins welcome.

Grade Evaluation

Theoretical Component (50%)	
40%	Midterm Exam, Thursday, March 11, <i>class time</i>
60%	Final Exam, Tuesday, May 18, 2:00 pm – 3:50 pm
Practical Component (50%)	
100%	Written work <ul style="list-style-type: none"> • Critiques of 3-5 papers from the Reading List • Possible peer review/evaluation of individual work • Possible written homework

Also see the on-line syllabus for details of final grade calculation.

Required Textbook

Computer Architecture: A Quantitative Approach, 3/e.
J.L. Hennessy & D.A. Patterson, 2003.
Morgan Kaufmann Publishers, San Francisco, California.
ISBN 1-55860-596-7

Additional Requirements

1. Students are expected to open and maintain a Chico State Connection (CSC) Portal (see <http://portal.csuchico.edu>) account in order to access up-to-date on-line calendar of events, current scores, discussion board, etc.
2. Students are responsible for checking out the online reading list (URL: [/~juliano/csci380/ReadingList.html](http://www.ecst.csuchico.edu/~juliano/csci380/ReadingList.html)) for additional re-

Additional Information

<http://www.ecst.csuchico.edu/~juliano/csci380/~juliano/csci380/Slides/~juliano/csci380/ReadingList.html>
<http://portal.csuchico.edu>