

## CSCI 320: Computer Architecture

### Abbreviated Syllabus for Spring Semester 2006

Visit <http://www.ecst.csuchico.edu/~juliano/csci550> for additional detail.

#### Prerequisites

- Grade of C- or better in CSCI 221(51A), *Assembly Language Programming*

#### Description

3 units. This course introduces basic digital logic design techniques and integrates the topics of assembly language programming, computer

organization, and computer design. Topics include the design of the arithmetic and logic unit (ALU), hardware multiplication and division, multiple clock cycle implementations, pipelined implementations, hazard detection and forwarding, design of a memory hierarchy, system busses and the design of a direct memory access (DMA) controller, cache consistency in multiprocessor systems, and implementation of a snooping cache. Formerly CSCI 171.

Class #	Section	Act	Days	Time	Room	Instructors
2224	CSCI 320-01	DIS	MWF	1100-1150am	YOLO 178	Dr. J Juliano@csuChico.edu

#### Instructor Information

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

- Students are expected to familiarize themselves with Dr. J's general policies and expectations as detailed online at [/~juliano/Teaching/Policies.html](http://www.ecst.csuchico.edu/~juliano/Teaching/Policies.html)

Office Hours: MWF, 9-10am and Thurs, 1-3pm  
 OCNL 222  
 Tel 530 898-4619 / 6442 (dept office)  
 Fax 530 898-5995  
*Appointments and walk-ins welcome.*

#### Grade Evaluation

Theoretical Component (50%)	
31.25%	Midterm, Fri, March 10, 11:00-11:50 am
68.75%	Finals, Mon, May 15, 12:00-1:50 pm
Practical Component (50%)	
100.00%	(In-class or online) Quizzes

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

#### Required Textbook

*Computer Organization and Design, 3/e*  
 David A. Patterson and John L. Hennessy, 2004.  
 Elsevier Inc., Burlington, MA  
 ISBN 1-55860-604-1

#### Additional Requirements

- Students are expected to regularly access their Chico State Connection (CSC) Portal (see <http://portal.csuchico.edu>) account to update themselves via the WebCT on-line calendar, current progress, discussion board, etc.

#### Additional Information

<http://www.ecst.csuchico.edu/~juliano/csci320/>  
<http://www.ecst.csuchico.edu/~juliano/Architecture/>  
<http://www.ecst.csuchico.edu/~juliano/Teaching/>  
<http://portal.csuchico.edu/>