

CSC 317  
COMPUTER ORG. and ARCHITECTURE  
SDEH 118 MWF 2:00  
Dr. GEORGE HAMER  
SPRING 2024

OFFICE: SDEH 121 or 214  
OFFICE PHONE: 688-5721  
OFFICE HOURS: M,W 11:00- 12:00  
3:00- 4:00  
TH 8:00-10:00  
AND BY APPOINTMENT

CLASS HOME PAGE: [D2L.sdbor.edu](http://D2L.sdbor.edu)  
EMAIL: [George.Hamer@sdstate.edu](mailto:George.Hamer@sdstate.edu)

PREREQUISITES:  
EE 245/245L

**TEXT:**

**Computer Organization & Design: The Hardware/Software Interface - ARM Edition**, 1st Edition. David A. Patterson and John L. Hennessy. Morgan Kaufmann. ISBN: 9780128017333.  
<https://www.elsevier.com/books/computer-organization-and-design-arm-edition/unknown/978-0-12-801733-3>

**COURSE DESCRIPTION (SDSU Catalog):**

A course in computer organization with emphasis on the hierarchical structure of computer systems. Covers such topics as: components of computer systems and their configuration, design of basic digital circuits, the microprogram level, the conventional machine level, the operating system level, assembly language, address modes, interpreters/translators, computer arithmetic.

**COURSE GOALS:**

The primary objective of this course is to introduce students to the fundamental principles of computer architecture and its organization emphasizing basic hardware/software components, and functional architecture of computers.

- IDEA Objectives: At the end of semester, students will complete the IDEA survey.
  - Gaining factual knowledge (terminology, classifications, methods, trends) (Essential)
  - Learning to apply course material (to improve thinking, problem solving, and decisions) (Important)
  - Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course (Important)

**STUDENT LEARNING OUTCOMES:**

After completion of this course, the students will be able to understand and evaluate the performance of computing systems and to understand how computers work and how to improve the performance of computing systems.

**ABET Student Outcome**

1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

**TIME ALLOCATION:**

- Ch. 1: week 1
- Ch. 2: weeks 2~4 (first midterm exam at the end)

- Ch. 3: weeks 5~7
- Ch. 4: weeks 8~13 (second midterm exam in the middle)
- Ch. 5: weeks 14~16

#### **EVALUATION:**

Evaluation consists of a three exams each worth 100 points, several homework assignments worth 150 points, and a final project worth 50 points.

<b>Tentative Exam Dates</b>		
Exam 1	100 points	Wed. Feb. 21
Exam 2	100 points	Wed. Apr 3
Final	100 points	Thur. May 2 @ 1:45
Assigns/Project	200 points	
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Total	500 points	

Assignments are due at the beginning of class on the due date. Late assignments will be penalized 20%. Assignments will not be accepted after one week past the due date. Grades will be based on the 90, 80, 70, 60% scale.

#### **STUDENT CONDUCT CHEATING and PLAGIARISM:**

Students are expected to do independent work!! A grade of zero will be given to any student(s) caught cheating on an exam. You are encouraged to work together on assignments but each student must submit his/her own unique assignment. Identical assignments will receive a grade of zero. This includes assignments from previous years or found on the Internet, if you submit an old assignment you will receive a grade of zero for the assignment with no chance for resubmission.

Each student is expected to maintain a professional attitude and perform to the best of their abilities without resorting to abusive conduct, cheating, or plagiarism. Violations of the academic honor code may result in a failing grade for this class, or a reduction in the final grade, depending on the relative severity of the violation.

The University has a clear expectation for academic integrity and does not tolerate academic dishonesty. [University Policy 2.4](#) sets forth the definitions of academic dishonesty, which includes but is not limited to, cheating, plagiarism, fabrication, facilitating academic dishonesty, misrepresentation, and other forms of dishonesty relating to academics. The [Policy and its Procedures](#) also set forth how charges of academic dishonesty are handled at the University. Academic Dishonesty is strictly proscribed and if found may result in student discipline up to and including dismissal from the University.

For view and comments on plagiarism and cyber-plagiarism, see <http://www.rbs2.com/plag.htm>, by Ronald B. Standler.

#### **MISC:**

Exams must be taken at the times they are scheduled except under EXTREME circumstances. All work in the class is to be done independently; this is not a group project. Duplicate assignments will receive a grade of 0. All assignments must be turned in order to receive a passing grade.

Students who must miss an exam must notify me in advance. Makeup exams are given for documented Medical or University related reasons only.

Students are responsible for all material and announcements given in class. All handouts, assignments and announcements will be posted to my home page.

Any student who feels s/he may need an accommodation based on the impact of a disability should contact Nancy Hartenhoff-Crooks (or successor) Coordinator of Disability Services (605-688-4504 or Fax, 605-688-4987) to privately discuss your specific needs. The Office of Disability Services is located in room 065, the University Student Union.

**Freedom in learning.** *Under Board of Regents and University policy student academic performance may be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards. Students should be free to take reasoned exception to the data or views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled. Student who believe that an academic evaluation reflects prejudiced or capricious consideration of student opinions or conduct unrelated to academic standards should first contact the instructor of the course to initiate a review of the evaluation. If the student remains unsatisfied, the student may contact the department head and/ or dean of the college which offers the class to initiate a review of the evaluation*