

## CS 272.01 Computer Organization I

**Instructor: Rekha Bhowmik**

**Office: AB1 216-B**

**Phone: 936-294-4333**

**E-mail: rbb002@shsu.edu**

---

**Catalog Description:** This course examines the functional components of computer systems. Topics discussed include processors, memory types and hierarchies, buses, I/O, interrupts, etc. with emphasis on how they affect program execution, parameter passing and inter-program communications between programs written in diverse languages.

**Prerequisite or Co-requisite:** CS 165

**Methodology:** Lecture with outside laboratory assignments. The examinations will cover the material in the lectures, and will require that the student understand, apply, and extend that knowledge.

**Objectives:** This course will be an introduction to the fields of assembly language and computer architecture. The student in this course will learn:

- the principles of digital logic
- computer arithmetic
- the architecture of a specific microprocessor
- how to implement programs in an assembly language for that machine
- interfacing with high-level languages

**Required Textbook:**

Code: The Hidden Language of Computer by Charles Petzold

ISBN: 0735611319

**Grading:**

The different types of grades are: Tests, quizzes, labs, and homework.

Tests (2)	30%
Quizzes/ Classwork	10%
Labs/ Homework	45%
Final exam	15%

Your final grade is computed as a percentage. The minimum percentage to earn an A is 90%, a B is 80%, a C is 70%, and a D is 60. Home and lab assignments must be unique creations of individual students and free of syntax errors to be worth many points.

**Location and time of class meeting:** This class meets TTH from 2.00 - 3:20 in AB1-209

**Office Hours:** M W F: 11:00 - 1:00  
TTH : 10:00 - 11:00, 3:00 - 4:00

**Email:**

Email communication is the best way to communicate with me outside of my office hours during the semester. Your email must include your name, and specifics of your question.

**Exams:**

There will be 2 exams plus a final with points awarded according to the above schedule. Cheating on exams or homework WILL NOT be tolerated. A grade of "F" for the course and appropriate disciplinary action will be awarded to any student caught cheating.

**Academic Honesty:**

All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

Students will refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the University. Cellular phones and pagers must be turned off before class begins. Students are prohibited from eating in class, using tobacco products, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times, wearing inappropriate clothing, or engaging in any form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave the class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with University policy.

Any situation which requires examination of possible academic dishonesty will be dealt with according to the policies and procedures set forth in Academic Policy Statement 810213.

**Visitors in the classroom:**

Unannounced visitors to class must present a current, official SHSU identification card to be permitted in the classroom. They must not present a disruption to the class by their attendance. If the visitor is not a registered student, it is at the instructor's discretion whether or not the visitor will be allowed to remain in the classroom.

**Americans with Disabilities Act:**

It is the Policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any academic or Student Life program or activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of the Counseling Center in the Lee Drain Annex or by calling (936) 294-1720

**Religious Holidays:**

University policy allows for students to observe religious holy days without penalty. If you intend to miss class as a result of the observance of a religious holy day or as a result of the necessary traveling time required for religious observance, such an absence will not be penalized so long as you have notified the instructor in writing of the dates and times of class sessions that are missed. The deadline for notification is the 12<sup>th</sup> class day. Students absent from class as a result of religious observance are required to submit any due assignments immediately on their return to the classroom. Makeup tests and quizzes will also be provided on return to the class.

### **Tentative Schedule**

<b>Week</b>	<b>Topic</b>	<b>Chapters</b>
1 (Jan 17)	Binary Number System	
2 (Jan 22, 24)	Binary Number System	
3 (Jan 29, 31)	Combinational Logic Circuits	
4 (Feb 5, 7)	Combinational Logic Circuits	
5 (Feb 12, 14)	Combinational Logic Design	
6 (Feb 19)	Combinational Logic Design	
(Feb 21)	<b>Test1</b>	
7 (Feb 26, 28)	Sequential Circuits	
8 (Mar 4, 6)	Sequential Circuits	
9 (Mar 18, 20)	Registers	
10 (Mar 25, 27)	Registers	
11 (Apr 1, 3)	Assembly Language Programming	
12 (Apr 8)	<b>Test 2</b>	
(Apr 10)	Assembly Language Programming	
13 (Apr 15, 17)	Assembly Language Programming	
14 (Apr 22, 24)	Assembly Language Programming	
15 (Apr 29, May 1)	Assembly Language Programming	
16 (May 6, May 8)	Assembly Language Programming	
17 (May 10-May 15)	<b>Final</b>	