San Diego Miramar College
CISC 211 Computer Organization and Assembly Language
Course Syllabus – Fall 2020

Instructor: Saied Moezzi
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Office Hours: Real time Online Office Hours on Zoom are generally on Saturdays from 9:00am-10:00am. That means I will be available to respond in real time (synchronous) to answer any questions you may have. You must let me know ahead of time by e-mail for an appointment if you will need to interact during that time.

Course Description: This 8-week course is fully online with no face to face classes. This course is an introduction to the organization of modern digital computers and assembly language programming. Topics include language syntax; instruction set mnemonics; and segment, index, pointer, general purpose, and flag registers. A variety of memory addressing techniques are covered, as well as stack operations, particularly those associated with passing parameters to subroutine calls. This course is intended for students majoring in computer and information sciences.

Textbook:
Digital Design and Computer Architecture ARM Edition
Authors: Sarah Harris David Harris

eBook ISBN: 9780128009116
Paperback ISBN: 9780128000564
Imprint: Morgan Kaufmann
Published Date: 22nd April 2015
You can purchase the eBook from our bookstore, or Amazon, Redshelf. The eBook can also be rented for a period of time. Make sure to search the web and go to this link to download the Lab-companion/Exercise solutions and other resources for this textbook.

Free online textbook: Plantz, Robert G. Introduction to Computer OrganizationARM Assembly Language Using the Raspberry Pi

Recommended, but not required: William Hohl & Christopher Hinds, *ARM Assembly Language : Fundamentals and Techniques, Second Edition*, CRC Press, 2015.

Student Learning Outcomes (SLOs):
Upon successful completion of the course the student will be able to:
1. Describe the organization and architecture of a computer system.
2. Employ the structure and syntax of assembly language in programming.
3. Differentiate and utilize the hexadecimal, binary, and octal number systems.
4. Apply binary logic operators to assembly language programs.
5. Utilize memory management and memory addressing methods.

6. Write and test assembly language programs to perform a variety of tasks, including storing and retrieving data from memory; accepting keyboard input and displaying a message to the screen; implementing a system and interrupt; reading or writing data to a register; implementing a loop; and processing a data array.
7. Compile and link an assembly language program into executable code.

A. Outline of Topics:

The following topics are included in the framework of the course but are not intended as limits on content.

    I. Data representation
    II. Boolean algebra
    III. System organization
    IV. Memory organization
    V. Variables and simple data structures in memory
    VI. The ARM instruction set
    VII. Control structures
    VIII.Procedures and functions

Evaluation:

- Grading for the course is based upon the percentage of total points earned as follows:

Course Items	Point Value
Assignments	40%
Labs	40%
Discussions	10%
Final Exam	10%

A	90.00% – 100%
B	80.00% – 89.99.%
C	70.00% – 79.00%
D	60.00–69.99
F	< 60%

Assignments and Late Work:

Policy Regarding Late or Incomplete Work
There is no process for "making up" course activities such as quizzes, trainings, exams and assignments, except in case of documented extreme hardship. Approval of any alternative activities is at the discretion of the instructor. Activities are set up online to not be accessible after their due date. Incomplete work will either be rejected or will lead to a reduction of the grade for that assignment relative to the amount of information missing.
Submissions not uploaded on time will be rejected (Note: Submit early. Last- minute submission attempts may be rejected due to a difference between your computer clock being a few minutes

slower than the Canvas server clock. This does not constitute a valid excuse for missing a submission deadline.)

Technical Requirements: For lab assignments you need to have access to a Windows PC and must be able to download and install several the required course applications. For assembly language lab assignments, you will be programming on a small single board computer with an ARM processor (Raspberry Pi) via remote access.

Plagiarism/Academic Integrity
As students in this course, you must adhere to the policies and procedures of the San Diego Community College District, as well as all Federal, State, and local laws. Students are subject to charges of misconduct concerning, but not limited to, the following acts as described in Policy 3100: The taking of and passing off as one's own work or ideas of another; plagiarism and academic cheating. (Please refer to the District Student Code of Conduct on the District Website: http://www.sdccd.edu/docs/policies/Student%20Services/BP%203100.pdf)

Netiquette Guidelines
Respectful behavior is expected of you in our online learning environment. Please read the Netiquette Guidelines available at the following link: http://www.sdccdonline.net/students/resources/NetiquetteGuidelines.pdf

Accessibility of Course Material
Every effort has been made to make this course accessible to all our participants, including participants with disabilities. If you encounter a problem accessing anything in this course, please contact a course instructor immediately.

Attendance and Participation:

It is the student's responsibility to drop all classes in which he/she is no longer attending or participating. It is the instructor's discretion to withdraw a student after the add/drop deadline due to excessive absences. Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class.

Important Dates:

10/21/2020	Deadline to Receive, Process & Pay for Add Codes & to Drop Classes With No "W" Recorded
10/21/2020	Refund Deadline of Enrollment Fees &/or Non-Resident Tuition
10/27/2020	Deadline to File A Petition for Pass/No Pass
11/13/2020	Withdrawal Deadline - No Drops Accepted After This Date