

B. Course Syllabus

COMP 3410: Syllabus

Course Information

Course Description

Basic concepts in assembly language programming, including logic, comparing and branching, interrupts, macros, procedures, arrays, program design, testing, debugging, loading, and linking; combinational, arithmetic and logical circuits ALU; memory circuits, latches, flip-flops, registers; computer structure; fetch-execute cycles, clocks and timing; microprogramming and microarchitecture; data path, timing, sequencing; cache memory organization; RISC architectures.

Course Objectives

At the end of the course, students will be able to:

- 1] write simple programs in assembly level language
- 2] Work with Number systems and Data representation in modern computer systems
- 3] Design hardware components at logic level of detail.
- 4] Understand advanced computer architecture concepts and mechanisms.

Prerequisites and Co-requisites

PREREQUISITE: COMP 2150.

Textbooks, Supplementary Materials, Hardware and Software Requirements

Required Textbooks

Textbooks are available from the University Store at 901-678-2011, and [online](https://www.textbooks.com/)  (<https://www.textbooks.com/>).



Sajjan Shiva. [Computer Organization, Design, and Architecture](http://www.amazon.ca/Computer-Organization-Design-Architecture-Fifth/dp/1466585544/ref=sr_1_10?s=books&ie=UTF8&qid=1389027828&sr=1-10&keywords=sajjan+shiva) ⇨ (http://www.amazon.ca/Computer-Organization-Design-Architecture-Fifth/dp/1466585544/ref=sr_1_10?s=books&ie=UTF8&qid=1389027828&sr=1-10&keywords=sajjan+shiva). 6th edition, CRC Taylor and Francis Press, 2025.

- You must acquire the Textbook and bring it to class – I will follow the book very closely
- Prior to each class, you must read the sections and pages of the book specified in the module description and be ready with questions.

Supplementary Materials

You will need a Simulator for the Simple Computer used as a learning tool in the class. The Simulator software will be provided by the instructor along with the instructions. This software can be downloaded to your device.

Hardware and Software Requirements

The minimum requirements can be found at <https://www.memphis.edu/uofmglobal/services/technology/requirements.php>. ⇨ (<https://www.memphis.edu/uofmglobal/services/technology/requirements.php>.)

Assessment and Grading

Testing Procedures

After the second class each week (and before the next week), you must take an online quiz. You will get 2 attempts to complete each quiz.

There will be three TESTS. There won't be quizzes during the weeks of Tests and the last week of classes.

There will be a Final Exam.

Grading Procedure

QUIZZES: Each QUIZ carries 10 points. There will be 10 quizzes (one quiz each week, except the two weeks in which TESTS are scheduled) count for 20% of the final grade.

Class attendance 5%:

Best 2 of the 3 Tests 25% each: Exact dates will be announced later.

Final Exam 25%

Grading Scale

Letter grades will be determined as follows:

A: 90 – 100 B: 80 -89 C: 70 – 79 D: 60 – 69 F: Below 60

Assignments and Participation

Class Participation

You must attend all classes and bring up questions to seek clarification of the material covered in the class. I would like to answer as many of your questions as possible in the class, so it will be beneficial for all.

Punctuality

It is important that you join the class on time and stay through the class. Take the weekly quiz immediately after the second class of the week and complete it well before the first class during the subsequent week.

Course Ground Rules

I emphasize:

- 1] Participation in the class during lectures is a must to understand the material.
- 2] You must read the sections of the book I identify prior to each class and come prepared with questions.
- 3] Learn how to navigate in D2L, and keep abreast of course announcements.
- 4] Use the assigned university e-mail address rather than a personal e-mail address.
- 5] Address all technical problems immediately and observe course netiquette at all times.

Guidelines for Communication

Email



- Always include COMP 3410 in the subject line.
- Remember without facial expressions some comments may be taken the wrong way.
- Be careful in wording your emails. Use of emoticons might be helpful in some cases.
- Use standard fonts.
- Do not send large attachments without permission.
- Special formatting such as centering, audio messages, tables, html, etc. should be avoided unless necessary to complete an assignment or other communication.
- Respect the privacy of other class members

Web Resources

[Columbia Guide to Online Style by Janice R. Walker and Todd Taylor](https://www.amazon.com/Columbia-Guide-Online-Style-Paperback/dp/0231132115) ↗ (https://www.amazon.com/Columbia-Guide-Online-Style-Paperback/dp/0231132115) (2nd Edition)
[Citation Styles Online](https://owl.purdue.edu/owl/research_and_citation/resources.html) ↗ (https://owl.purdue.edu/owl/research_and_citation/resources.html) - Purdue Owl


Plagiarism and Integrity

Plagiarism, cheating, and other forms of academic dishonesty are prohibited. Students guilty of academic misconduct, either directly or indirectly, through participation or assistance, are immediately responsible to the instructor of the class in addition to other possible disciplinary sanctions which may be imposed through the regular institutional disciplinary procedures. Expectations for academic integrity and student conduct are described in detail on the website of the [Office of Student Accountability](https://www.memphis.edu/osa/) ↗ (https://www.memphis.edu/osa/). Please read in particular, the section about "[Academic Misconduct](https://www.memphis.edu/osa/students/academic-misconduct.php)" ↗ (https://www.memphis.edu/osa/students/academic-misconduct.php).

Turnitin.com


Your written work will be submitted to [Turnitin](https://www.turnitin.com/) ↗ (https://www.turnitin.com/), or a similar electronic detection method, for an evaluation of the originality of your ideas and proper use and attribution of sources. As part of this process, you may be required to submit electronic as well as hard copies of your written work, or be given other instructions to follow. By taking this course, you agree that all assignments may undergo this review process and that the assignment may be included as a source document in Turnitin.com's restricted access database solely for the purpose of detecting plagiarism in such documents. Any assignment not submitted according to the procedures given by the instructor may be penalized or may not be accepted at all."

Library, Tutoring, and Other Resources

- The myMemphis Portal system, eCampus Student tab provides access to [University library](https://www.memphis.edu/libraries/)  (<https://www.memphis.edu/libraries/>).
- The tutoring link in the course navigation bar provides access to free online tutoring through UpSwing.
- The LinkedIn Learning link in the course navigation bar provides free access to thousands of video tutorials.
- Other support services are available through the Educational Support Program.

Student Accommodations

Students with accessibility issues or learning accommodation issues due to a disability should contact Disability Resources for Students (DRS) to submit an official request for course accommodations. Contact DRS at

901.678.2880 or at drs@memphis.edu. (<https://www.memphis.edu/drs/index.php>)  (<https://www.memphis.edu/drs/index.php>)

Qualified students with disabilities will be provided reasonable and necessary academic accommodations if determined eligible by disability services staff at the University of Memphis. Prior to granting disability accommodations in this course, the instructor must receive written verification of a student's eligibility for specific accommodations from the disability services staff. It is the student's responsibility to initiate contact with

[Disability Resources for Students](https://www.memphis.edu/drs/)  (<https://www.memphis.edu/drs/>)

(DRS) and to follow the established procedures for having the accommodation notice sent to the instructor.



Sexual Misconduct and Domestic Violence Policy

This policy specifically addresses sexual misconduct which includes dating violence, domestic violence, sexual assault, and stalking. The policy establishes procedures for responding to Title IX-related allegations of sexual misconduct. Complaints can be reported to the Office for Institutional Equity (OIE). The OIE office is located in the Administration Building, Room 156. You may contact the OIE by phone at 901.678.2713 or by email at [oe@memphis.edu \(mailto:oe@memphis.edu\)](mailto:oe@memphis.edu). Complaints can be submitted online at [File a Complaint ↗ \(https://www.memphis.edu/oie/complaint.php\)](https://www.memphis.edu/oie/complaint.php).

Non-Discrimination and Anti-Harassment Policy

University policy prohibiting discrimination and harassment based on protected characteristics and classes. Complaints of discrimination and harassment can be reported to the Office for Institutional Equity (OIE). You may contact OIE by phone at 901.678.2713 or by email at oe@memphis.edu. The full text of the policy can be found at [GE2030 - NONDISCRIMINATION AND ANTI-HARASSMENT ↗ \(https://memphis.policytech.com/dotNet/documents/?docid=430&public=true\)](https://memphis.policytech.com/dotNet/documents/?docid=430&public=true).

Technology Requirements

The following is a list of the minimum requirements to use our learning management system. Some courses will have more advanced requirements.

- Access to a reliable, high-speed Internet connection (DSL or Cable).
- Test your device to ensure it is compatible with our LMS (Learning Management System) using the System Check Wizard.
- Open PDF files using the free downloadable software at Adobe Acrobat Reader DC.
- Access Flash-based content with [Adobe Flash Player ↗ \(https://get.adobe.com/flashplayer/\)](https://get.adobe.com/flashplayer/) (free).
- Use Microsoft Office Software for Faculty, Staff, and Students for document creation.
- Play media content with [Real Player ↗ \(https://www.real.com/\)](https://www.real.com/) (free). [Quick Time ↗ \(https://support.apple.com/kb/DL837?locale=en_US\)](https://support.apple.com/kb/DL837?locale=en_US) (free), or [Windows Media Player ↗ \(https://support.microsoft.com/en-us/help/18612/windows-media-player\)](https://support.microsoft.com/en-us/help/18612/windows-media-player) (free). (available for students via [http://umapps.memphis.edu/ ↗ \(http://umapps.memphis.edu/\)](http://umapps.memphis.edu/))

Syllabus Changes



The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

Technical Support

Call the Helpdesk: (901) 678-8888

Online Helpdesk [↗ \(https://www.memphis.edu/umtech/service_desk/contact.php\)](https://www.memphis.edu/umtech/service_desk/contact.php): To report an issue or request assistance, contact umTech - Information Technology Services.

Student Health

Students who have a positive COVID-19 test should contact the Dean of Students at deanofstudents@memphis.edu (<mailto:deanofstudents@memphis.edu>).

Student Resources

Students who need additional resources can visit the Dean of Students Office website at <https://www.memphis.edu/deanofstudents/crisis/index.php>. [↗ \(https://www.memphis.edu/deanofstudents/crisis/index.php\)](https://www.memphis.edu/deanofstudents/crisis/index.php)



