

Course Information

Course Number: CSCE 206

Course Title: Structured Programming in C

Term: Spring 2022

Section: M01

Time: Lecture: MWF 12:40 pm – 01:30 pm

Lab: MF 01:50 pm – 02:40 pm

Location: HECM 115

Credit Hours: 4

Instructor Details

Instructor: Dr. Aldo Jonathan Munoz-Vazquez

Office: 218.6

Phone: 956-271-1358

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Office Hours: TR: 10:00 am – 12:00 pm, or by appointment.

Course Description

This course addresses principles of computer science, including algorithm development, programming techniques, language features, and methods of documentation. Students will be introduced (in detail) to the "C" programming language.

Course Learning Outcomes

- Read and comprehend C language programming.
- Design, write, and debug programs in C.
- Reading and writing of text and binary files in C.

Recommended Textbook

[1] C by Dissection: The Essentials of C Programming, 4th Ed., Kelly A. & Pohl C., 2001. ISBN-10: 0201713748, ISBN-13: 978-0201713749

Additional References

[1] C Primer Plus, Sixth Edition, Stephen P., 2014.

ISBN-10: 0-321-92842-3, ISBN-13: 978-0-321-92842-9

[2] C Programming Language, 2nd Edition, Kernighan, B. & Ritchie, D., 1988.

ISBN-10: 0131103628, ISBN-13: 978-0131103627



[3] C Programming: A Modern Approach, 2nd Edition, King., K.N., 2008. ISBN-13: 978-0393979503 ISBN-10: 0393979504

Grading Policy

Attendance and Quizzes	5%
Homework	15%
Laboratories	20%
Exams	60%

A: 90 - 100%; B: 80 - 89%; C: 70 - 79%; D: 60 - 69%; F: < 60%.

Attendance – Attendance is recommended due to the constant coverage of information in the course. The student is responsible for obtaining information from missed classes. Quizzes will be given to students during some classes to allow a better understanding of discussed topics, and some of the quizzes can be annotated and graded.

Homework – Homework assignments will be placed on Canvas. Homework consist on programming assignments, as well as their description. Homework due dates are given with assignment. A homework is turned in class the day it is due. Late is considered after class ends. All late assignments will lose 30% of their value from the first day to one week after the due date, and no submission will be accepted after that. Please give proper notice if expected to miss a homework. Make up homework is only possible with approval given a university excused absence.

Labs – Students will work in teams for each lab exercise. A lab grade is comprised of demonstrating working lab exercises and a lab report. One lab report per group will be submitted. All demonstrations of working lab exercises and lab reports are due by the beginning of the next lab. No late demonstrations or reports will be accepted. A failing lab grade will result in a failing course grade. If lab cannot be attended, student is required to give notice so that a makeup lab can be given accordingly. If makeup lab is not completed in a timely manner, a late grade to the lab will be assigned, and re-submission will be refused.

Exams – Two mid-term exams and a final are given. All exams will be weighted equally. A reference sheet (if needed) will be given, calculators are allowed during the exam. Mid-terms exams dates may change depending at the discretion of the instructor. The final exam is based on **TAMU finals schedule**. Please give proper notice if expected to miss an exam, or if an exam is missed. Make up exam is only possible with approval given a university excused absence.



Course Topics, Calendar of Activities, Major Assignment Dates

	Lecture	Lab
Week	MWF 12:40 pm – 01:30 pm	TR 01:50 pm – 2:40 pm
1	C Language and Programming Methodology	LAB 0: Safety and Overview
2	Structure of a C program, Data types, Variables and Syntax	LAB 1: Hello Aggies!
3	Input/Output Functions, Operators and Expressions	LAB 2: Data types
4	Conditionals: if-else and switch-case	LAB 3: Conditionals
5	Loops: for, while, and do-while	LAB 4: Loops
6	Mid-term I	NO LAB THIS WEEK
7	Functions: Arguments and Declaration	LAB 5: Functions
8	Structures, Unions and Enumerations	LAB 6: Structures
9	Storage Classes	LAB 7: Storage Classes
10	Dynamic Memory Allocation	LAB 8: malloc() and free()
11	Mid-term II	NO LAB THIS WEEK
12	Arrays	LAB 9: Arrays
13	Pointers	LAB 10: Pointers
14	Binary files	NO LAB THIS WEEK
	Final Exam	

Relationship of course to ABET Criterion 3 student outcomes:

 Outcome 2: An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline.

Contribution of course to requirements of ABET Criterion 5:

• **Engineering Design:** Semester hrs – 4

Attendance Policy

The university views class attendance and participation as an individual student responsibility. Students are expected to attend class and to complete all assignments.

Please refer to <u>Student Rule 7</u> in its entirety for information about excused absences, including definitions, and related documentation and timelines.

Makeup Work Policy

Students will be excused from attending class on the day of a graded activity or when attendance contributes to a student's grade, for the reasons stated in Student Rule 7, or other reason deemed appropriate by the instructor.



Please refer to <u>Student Rule 7</u> in its entirety for information about makeup work, including definitions, and related documentation and timelines.

Absences related to Title IX of the Education Amendments of 1972 may necessitate a period of more than 30 days for make-up work, and the timeframe for make-up work should be agreed upon by the student and instructor" (Student Rule 7, Section 7.4.1).

"The instructor is under no obligation to provide an opportunity for the student to make up work missed because of an unexcused absence" (<u>Student Rule 7, Section 7.4.2</u>).

Students who request an excused absence are expected to uphold the Aggie Honor Code and Student Conduct Code. (See <u>Student Rule 24</u>.)

Academic Integrity Statement and Policy

"An Aggie does not lie, cheat or steal, or tolerate those who do."

"Texas A&M University students are responsible for authenticating all work submitted to an instructor. If asked, students must be able to produce proof that the item submitted is indeed the work of that student. Students must keep appropriate records at all times. The inability to authenticate one's work, should the instructor request it, may be sufficient grounds to initiate an academic misconduct case" (Section 20.1.2.3, Student Rule 20).

You can learn more about the Aggie Honor System Office Rules and Procedures, academic integrity, and your rights and responsibilities at aggiehonor.tamu.edu.

Americans with Disabilities Act (ADA) Policy

Texas A&M University is committed to providing equitable access to learning opportunities for all students. If you experience barriers to your education due to a disability or think you may have a disability, please contact Disability Resources in the Student Services Building or at (979) 845-1637 or visit <u>disability.tamu.edu</u>. Disabilities may include, but are not limited to attentional, learning, mental health, sensory, physical, or chronic health conditions. All students are encouraged to discuss their disability related needs with Disability Resources and their instructors as soon as possible.

Title IX and Statement on Limits to Confidentiality

Texas A&M University is committed to fostering a learning environment that is safe and productive for all. University policies and federal and state laws prohibit gender-based discrimination and sexual harassment, including sexual assault, sexual exploitation, domestic violence, dating violence, and stalking.



With the exception of some medical and mental health providers, all university employees (including full and part-time faculty, staff, paid graduate assistants, student workers, etc.) are Mandatory Reporters and must report to the Title IX Office if the employee experiences, observes, or becomes aware of an incident that meets the following conditions (see <u>University Rule 08.01.01.M1</u>):

- The incident is reasonably believed to be discrimination or harassment.
- The incident is alleged to have been committed by or against a person who, at the time of the incident, was (1) a student enrolled at the University or (2) an employee of the University.

Mandatory Reporters must file a report regardless of how the information comes to their attention – including but not limited to face-to-face conversations, a written class assignment or paper, class discussion, email, text, or social media post. Although Mandatory Reporters must file a report, in most instances, you will be able to control how the report is handled, including whether or not to pursue a formal investigation. The University's goal is to make sure you are aware of the range of options available to you and to ensure access to the resources you need.

Students wishing to discuss concerns in a confidential setting are encouraged to make an appointment with <u>Counseling and Psychological Services</u> (CAPS).

Students can learn more about filing a report, accessing supportive resources, and navigating the Title IX investigation and resolution process on the University's <u>Title IX webpage</u>.

Statement on Mental Health and Wellness

Texas A&M University recognizes that mental health and wellness are critical factors that influence a student's academic success and overall wellbeing. Students are encouraged to engage in proper self-care by utilizing the resources and services available from Counseling & Psychological Services (CAPS). Students who need someone to talk to can call the TAMU Helpline (979-845-2700) from 4:00 p.m. to 8:00 a.m. weekdays and 24 hours on weekends. 24-hour emergency help is also available through the National Suicide Prevention Hotline (800-273-8255) or at suicidepreventionlifeline.org.

COVID-19 Temporary Amendment to Minimum Syllabus Requirements

To help protect Aggieland and stop the spread of COVID-19, Texas A&M University urges students to be vaccinated and to wear masks in classrooms and all other academic facilities on campus, including labs. Doing so exemplifies the Aggie Core Values of respect, leadership, integrity, and selfless service by putting community concerns above individual preferences. COVID-19 vaccines and masking — regardless of vaccination status — have been shown to be safe and effective at reducing spread to others, infection, hospitalization, and death.