MIDDLE EAST TECHNICAL UNIVERSITY
NORTHERN CYPRUS CAMPUS
CNG230 – Introduction to C Programming – Course Syllabus Fall 2024-2025

Course Code and Title: 3550230 Introduction to C programming

Credits/ECTS: (2-2) 3 / 4

Catalog Description: Introduction. Constants, variables, expressions, statements. Selective structures. Repetitive structures and arrays. Functions. Pointers. Multi-dimensional arrays.

This course is offered to non-CNG and non-SNG students only.

Textbooks:

- **Main:** H. M. Deitel and D. J. Deitel, C: How to Program, Pearson Education, 5th Edition, 2006

Instructors:

Prof Dr. Ahmed Cosar (Section 1, 2), E-mail: acosar@metu.edu.tr
Asst. Prof Dr. Mariem Hmile (Section 3), E-mail: mariem@metu.edu.tr

Section	Lecture Hours	Laboratory Hours
1	Wed 10:40-12:30 (I-104)	Tue 08:40-10:30 (I-104)
2	Tue 15:40-17:30 (I-104)	Mon 12:40-14:30 (R- 104)
3	Thurs 8:30 - 10:30 (I-103)	Mon 15:40-17:30 (I-103)

Office Hours: Please check your all sections

Lab Assistants: Umut Baybece Email: baybece.umut@metu.edu.tr
and Brandon Simoko Email: brandon.simoko@metu.edu.tr

Course Prerequisites: None

Specific Outcomes of Instruction: At the end of this course, students will be able to:

1. **Understand** basic data types such as ints, floats, and arrays and **understand** how different types of data can be represented and used in computational expressions.
2. **Understand** and **apply** structured programming concepts by elaborating on sequential, selective,and repetitive structures, such as statements, if/switch/case statements, and for/while statements.
3. **Check** the correctness of a given program in terms of compile-time and run-time behavior.
4. **Learn how to look up and use** standard C library functions, such as input/output functions string functions, and so on in a program.
5. **Interpret** a computational problem specification, develop an algorithmic solution for that problem, and **implement** that algorithmic solution in the C programming language to solve that problem

6. **Design** a modular solution to a problem by **decomposing** the given problem into smaller sub-problems each of which can be solved independently such that those solutions are later integrated into an overall solution.

Lectures and Labs: Every week lecture material will be posted on ODTUClass. Lectures and labs will be face-to-face. During lecture/lab hours, course material will be discussed and practical exercises will be solved.

Programming Quizzes: There will be three (3) programming quizzes throughout the semester. A programming question will be provided to you. Then you will be required to submit a C program (.c file) that you will implement that solves that problem within the allowed duration. No late submissions will be accepted. Students will receive zero credit under the following conditions if a student

1. Plagiarizes from another student [If a student commits two cases of Plagiarizem, the letter grade for that student will be FF]
2. Submit an answer that does not correspond to a given question
3. Submits an empty file
4. Submit a file with code unrelated to the question at hand
5. Fails to attempt to solve the question provided
6. Submits code that is not written in the C programming language (regardless of the correctness of the solution provided)

Exams: There will be one midterm and one final exam during the semester. Students caught cheating/plagiarising on an exam will get zero points for that exam, and students involved will be referred to the Disciplinary Committee.

Course Outline (Tentative):

Week #	**Week**	**Lecture**	**Lab**	**Worksheet**
1	Feb 17	Lecture 1: Syllabus, Algorithms	Lab 1: Clion	Lecture Worksheet 1
2	Feb 24	Lecture 2: Introduction to C programming-Basic C statements(printf, scanf), programming-variables in C,operators	Lab 2: Review on Clion, Basic Examples	Lecture Worksheet 1
3	March 3	Lecture 3: Flow of Control – If,If..else chain, switch statement	Lab 3: Basic Programming Exercises	Lecture Worksheet 2
4	March 10	Lecture 3: Assignment Operators, Increment/Decrement Operators Lecture 4: While Loop	Lab 4: If/If..else chain	Lecture Worksheet 3
5	March 17	Lecture 4: While Loop	Lab 5: While Loop	Lecture Worksheet 3
6	March 24	Lecture 5: For, do…while loops, break,continue statements **Programming Quiz 1**	Review Worksheet 1	Lecture Worksheet 4
7	March 31	Religious Holiday	No labs	No labs
8	April 7	Lecture 6: Functions	Lab 6: For, do..while	Lecture Worksheet 5

9	April 14	Lecture 6: Functions(cont..)	Lab 7: Functions	Lecture Worksheet 5 (cont..) Review Worksheet 2
10	April 21	Lecture 7: Arrays **Midterm Exam**	Lab 8: Functions	Lecture Worksheet 6
11	April 28	Lecture 8: Arrays and Functions **Programming Quiz 2**	Lab 9: Arrays	Lecture Worksheet 7
12	May 5	Review: Worksheet 7	Lab 10: Arrays and Functions	Lecture Worksheet 8
13	May 12	Lecture 9: Strings	Lab 11: Strings	Lecture Worksheet 9
14	May 19	Review **Programming Quiz 3**	Lab 12: Strings	Lecture Worksheet 10

Computer Usage: Clion Please make sure that your computer has Clion installed. You can download it from https://www.jetbrains.com/clion/download/

Grading :

Programming Quiz 1	10%
Programming Quiz 2	20%
Programming Quiz 3	20%
Midterm Exam	20%
Final Exam	30%

Attendance Requirement: Attendance is mandatory. We will take attendance for all lectures and lab hours. Students have to attend at least **70% of *both* all lectures and labs** in order to be admitted to the final exam. Students whose attendance is below **70%** will not be admitted to the final exam and will receive a grade of NA for the course.

Professionalism and Ethics:

Please keep in mind that every student must abide by the Academic Code of Ethics at METU NCC:

https://ncc.metu.edu.tr/res/academic-code-of-ethics

Students are expected to complete the assignments/exams on their own. Sharing your work with others, uploading assignment/exam questions to the online websites to seek solutions, and/or presenting someone else's work/solution or your own work will be considered cheating/plagiarism. In addition, using generative AI tools to generate solutions and/or presenting generative AI solutions as one's original work will also be considered cheating/plagiarism.

Simply, plagiarism means presenting someone else's work as your own. Please visit the Academic Code of Ethics webpage and read the code thoroughly.

When a breach of the code of ethics occurs (cheating/plagiarism, deception, etc.), the student will be added to the BLACK list, and the instructor will be able to apply one of the following.

1. Perform an oral or written test for the students to confirm their level of knowledge and assess their grades. If the follow-up exam (oral/written) results in failure, the instructor may choose to apply one of the other items below

2. Give a “zero” grade for the relevant exam, assignment,

3. Give a “zero” grade for a larger part or all of the assignments,

4. Give a failing letter grade for the course,

5. Forward the case to the discipline committee.

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