
Capital University of Economics and Business

Overseas Chinese College

Course Syllabus

| | |
|-------------------------------------|---|
| <u>Year and Semester</u> | 2021 Fall (Sept 05, 2021 - Jan 14, 2022) |
| <u>Course Name</u> | Programming In C |
| <u>Course Code</u> | MIS221 |
| <u>Course Type</u> | <input type="checkbox"/> General Education (Required) <input type="checkbox"/> General Education (Elective) <input checked="" type="checkbox"/> Professional Course (Required) <input type="checkbox"/> Professional Course (Elective) <input type="checkbox"/> Basic Disciplinary Course |
| <u>Course Credits</u> | 3 |
| <u>Course Hours</u> | 48 |
| <u>Prerequisite Course</u> | None |
| <u>Instructor</u> | Prof. Smith |
| <u>Contact Information</u> | Office: C217, Email: skippersmith66@gmail.com (all email correspondence must have in the Subject field: MIS221IT/CFA EnglishName ID reason) |
| <u>Office Hours</u> | Wed: 13:30-15:30 Fri: 10:00-12:00; |
| <u>Learning Center Hours</u> | Tue: 18:00-20:00 |
| <u>Grade/Section</u> | 2019 IT/CFA |
| <u>Course Time/Place</u> | IT Wed 10:10-12:00 & Fri 9:00-9:50; B212 CFA Wed 8:00-9:50 & Fri 8:00-8:50; B307 |
| <u>Textbook</u> | Gary Bronson, A First Book of ANSI C, 4 th edition, <i>Cengage</i> ; ISBN: 978-7-121-34326-1 |

Course Description

C programming is the fundamental computer programming language. After completing the course, students will be able to understand how to use C language to develop a program, understand how to use the commands to build their program, and develop an understanding of program designed. At last, students should finish their project independently.

Student Learning Objectives

Learners are exposed to:

- The process of developing software
- The four major types of coding structures: Sequential/Selection/Repetition/Invocation.
- The use of an IDE (Integrated Development Environment) for writing and debugging code.

After completing the course, students will be able to:

- Understand the steps to designing a program.
- Be able to write a modestly complex program involving multiple functions
- Be able to design and test each function

Teaching methods

This course consists of lectures, individual and group practice, and group presentations. Students must be prepared to discuss the assigned cases before class.

Grade Criterion

| Component | Weight | Description |
|---------------|-------------|--|
| Final Exam | 20% | A cumulative final examination will be given based on all of the contents of the class. A minimum of 25% of the exam (5 of the 20%) will consist of questions utilizing the application of critical thinking. |
| Mid-Term Test | 20% | A cumulative midterm test will be given based on all of the contents of the first half of the class. A minimum of 25% of the test (5 of the 20%) will consist of questions utilizing the application of critical thinking. |
| Homework | 20% | Homework assignments will be given throughout the semester, which are due at class time on the dates specified by each assignment requirement. You should be very serious about the homework for two reasons. First, you will not get credit if you do not turn in the assignment. Second, problems in the exams will be very similar to those in the assignments. In general, each assignment should take no more than 2-3 hours and should be prepared as described in class. Hand-written assignments will not be accepted. |
| Participation | 10% | Individuals will be asked to participate in coding during the semester. Students are required to meet with their teachers every other week. Their performance should be graded in their participation. |
| Presentation | 20% | Refer to the handouts. |
| Attendance | 10% | Refer to attendance policy listed below. |
| Total | 100% | |

Detailed Grade computation

| | Before Midterm | After Midterm |
|---------------|----------------|---------------|
| Attendance | 5% | 5% |
| Participation | 5% | 5% |
| Homework | 5% | 5% |
| Quiz | 5% | 5% |
| Presentation | | 20% |
| Midterm test | 20% | |
| Final exam | | 20% |
| Total | 40% | 60% |

Grading Policy

A+ 97-100 A 93-96 A- 90-92 B+ 87-89 B 83-86 B- 80-82
 C+ 75-79 C 70-74 C- 67-69 D+ 63-66 D 62-60 F 0-59

Exam Schedule

- Midterm: Nov. 1- 5, 2021; Final Exam: Dec 27-31, 2021

Assessment of student performance

- **Homework**
 - Students should finish their homework (except for group assignments) by themselves. Copying from others or from any other sources without clear quotation will be treated as cheating. Students should hand in all assignments promptly and on time. Late assignment will be accepted at the discretion of the instructor (i.e., when the student was ill or had an excused absence). Assignments turned in late without proof of illness or with an excused absence will be reduced in score by 50%.

- Assignments should be printed out unless email is requested. Printing requirements are as followed: single space between lines, double space between paragraphs, font size is 12 (maximum). Grammar error can reduce 20% of your score.

● **Attendance**

Attendance in class is required for all students taking courses at the Capital University of Economics and Business Overseas Chinese College.

- Being late for 15 minutes or more is considered an unexcused absence.
- Five hours or above of unexcused absences will result in the lowering of the mid-term and/or final grade by one grade band (e.g. from C – to D +). Any excused absence must be discussed directly with the teacher.
- 16 class hours of any kind of absences will result in a failing grade (F), but students are welcome to continue attending classes.
- An incomplete grade (I) will be considered in case of medical or family emergencies.

● **Participation**

- Students should participate in classes actively. Half of participation grade is determined by their presentation in class. They are encouraged to ask questions relevant to the subject and express their own opinions. Every student should respect the ideas, opinions, and questions of their classmates.
- Students should also use office hour to ask questions or talk with the instructor for good communication and effective learning. Any misbehavior and non-class related activities in class will result in the lowering of the participation grade, including ringing beepers and **cell phones**.
- All above behaviors will be solely evaluated by the instructor for scoring.

Topical Course Outline

| Week | Date | Topics |
|------|-----------|---|
| 1 | 0908-0910 | Syllabus Chapter 1 Introduction to Computer Programming <ul style="list-style-type: none"> ● History and hardware ● Programming languages ● Algorithms ● The software development process |
| 2 | 0915-0917 | Chapter 2 Getting Started in C Programming <ul style="list-style-type: none"> ● Programming style ● Data types ● Arithmetic operations ● Variables and declarations |
| 3 | 0922-0924 | Chapter 3 Processing and interactive input <ul style="list-style-type: none"> ● Assignment ● Mathematical library functions ● Interactive input ● Formatted input ● Symbolic constants |
| 4 | 0929-1001 | Chapter 4 Flow of control (National Holiday will effect this and the Quiz dates) <ul style="list-style-type: none"> ● Relational expressions <ul style="list-style-type: none"> ● The if and if-else statements ● The if-else chain |

| | | |
|----|-----------|--|
| | | <ul style="list-style-type: none"> The switch statement |
| 5 | 1006-1008 | Quiz I |
| 6 | 1013-1015 | Chapter 5 Repetition <ul style="list-style-type: none"> Basic loop structure The while statement |
| 7 | 1020-1022 | <ul style="list-style-type: none"> Computing sums and averages using a while loop The for statement Nested loops The do-while statement |
| 8 | 1027-1029 | Chapter 6 Modularity using functions Part I <ul style="list-style-type: none"> Function and parameter Declarations Returning a value Standard library functions |
| 9 | 1103-1005 | Midterm Test |
| 10 | 1110-1112 | Chapter 7 Modularity using Functions Part II <ul style="list-style-type: none"> Variable scope Variable storage class Pass by reference Recursion |
| 11 | 1117-1119 | Chapter 8 Arrays <ul style="list-style-type: none"> One-dimensional arrays Array initialization Array as function arguments N-dimensional arrays* |
| 12 | 1124-1126 | Chapter 9 Character strings <ul style="list-style-type: none"> String fundamentals Library functions Input data validation Formatting strings |
| 13 | 1201-1203 | More Strings and review |
| 14 | 1208-1210 | Quiz II |
| 15 | 1215-1217 | Chapter 10 Data files* <ul style="list-style-type: none"> Declaration * Reading from and writing to text files* Random file access * Passing and returning filenames * Chapter 11 Arrays, addresses, and pointers * Random file access Passing and returning filenames Chapter 11 Arrays, addresses, and pointers * Optionally Presentations |
| 16 | 1222-1224 | Presentations |
| 17 | 1229-1231 | Presentations |
| 18 | 0105-0107 | Final Exam |
| 19 | 0112-0114 | Final Exam |

Teacher's Office Hours

- The instructor's office hours are shown at the front of the office door.
- Students are required to use the instructor's office hours to ask questions or talk with the instructor at least once per week for good communication and effective learning, which is recorded in the students' participation.
- The time can be scheduled by instructors or students, or both.

Study Group:

- Students are encouraged to form the study group in order to help doing the self-study and review the knowledge points, teacher may use group as unit to do the assessment and other study tasks distribution.

Cheating and Plagiarism

- **Cheating is not tolerated.** Any student caught cheating on a quiz; test or exam will be given a mark of zero (0) for the particular work. Cheating on the final exam will result in a mark of zero (0) for the course.
- At the beginning of the semester the definition of plagiarism will be carefully explained, when any thoughts or writings of another person are used, they must be clearly identified (usually one uses quotation marks) and the source notes.

Presentations:

Developing presentation skills is important for everyone, plus it's a good way to share information. Each student will prepare and present one individual presentation and help with the group project presentations. The individual presentations must include at least three outside references, noted in footnotes and a reference page. Hand in a hard copy of your presentation notes, including a bibliography, or include the information in your handouts/visuals, if you plan to use any. We will brainstorm potential topics in class. Presentations will be evaluated based on content, delivery, and audience response.

Important Dates

| Fall Semester, 2021 | September 05, 2021— January 14, 2022 |
|----------------------------|---|
| Sep. 5 | Registration |
| Sep. 6 | Classes Begin |
| Sep. 10 | Last day to drop or add a course (Soph and above) |
| Sep. 21 | Mid-Autumn Festival (tentative) |
| Sep. 27 | Classes Begin (Freshmen) |
| Oct 1 | National Day Holiday (tentative) |
| Nov. 1 - Nov. 5 | Mid-term Test |
| Dec. 27 - 31 | Final Exam Period |
| Jan.1, 2022 | New Year's Day Holiday (tentative) |
| Jan. 17 | Winter Vacation Begins |

Note: This syllabus is tentative and may be changed or modified throughout the semester. All students will be notified and a new syllabus will be given.

Instructor: Prof. Skipper Smith

Department Head: Prof. Jingning Li

