Unix and C

CSCI 3100A

Instructor Info

Kelvin Gao

Office Hrs: Tue & Thu 1:30p-3:30p

TBD

TBD

zgao1@aum.edu

Course Info

Prereq: CSCI 3000 (Structured Programming II)

Tues & Thurs

10:50a-12:05p

Room 201 GH

Lab Info

Tues & Thurs

10:50a-12:05p (after lecture)

Room 201 GH

TA Info

TBD

Office Hrs: TBD

TBD

Overview

An advanced survey of the C programming language with emphasis in the implementation of algorithms. Unix-like operating systems: History, operating system fundamentals, file system, and use of the major Unix utilities.

Material

Required Texts

C Programming Absolute Beginner's Guide (3rd Edition) by Greg Perry and Dean Miller

Grading Scheme

5%	Attendance/Participation
30%	Programming Assignment
20%	Midterm Exam
20%	Final Exam
25%	Class Project

Grades will follow the standard scale: A = 89.5-100; B = 79.5-89.4; C = 69.5-79.4; D = 60-69.4; F <60. Curving is at the discretion of the professor.

Late Submission Policy

Except in the cases outlined above for excused absences, programming assignments must be submitted before the specified deadline in order to receive full credit.

- 0 to 24 hours late: 10% of points will be deducted from the original score.
- 24 to 48 hours late: 20% of points will be deducted from the original score.
- Others: No acceptance.

Note: No late submissions will be accepted after the final exam.

Make-up Policy

Make-up exams or assignments will only be allowed for students who have a substantiated excuse approved by the instructor *before the due date*. Leaving a phone message or sending an e-mail without confirmation is not acceptable.

Learning Objectives

Students will be able to program using C programming language and use Unix/Linus like operating systems.

FAQs

What programming languages are expected to learn?

C programming languages and operating system scripting language, e.g. bash.

Any programming work in this course?

Yes, we do have several class project that require programming works.

How are exams organized?

If it allows, the exams will include a text part and a practical part. Details will be given in the class.

Diversity and Inclusivity Statement

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability - and other visible and non-visible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Accommodations for Students with Disabilities

Students who need accommodations are asked to arrange a meeting during office hours to discuss your accommodations. If you have a conflict with my office hours, an alternate time can be arranged. To set up this meeting, please contact me by e-mail. If you have not registered for accommodation services through the Center for Disability Services (CDS), but need accommodations, make an appointment with CDS, 147 Taylor Center, or call 334-244-3631 or e-mail CDS at cds@aum.edu.

Free Academic Support

All students have the opportunity to receive free academic support at AUM. Visit the Learning Center (LC) in the WASC on second floor Library or the Instructional Support Lab (ISL) in 203 Goodwyn Hall. The LC.ISL offers writing consulting as well as tutoring in almost every class through graduate school. The LC may be reached at 244-3470 (call or walk-in for a session), and the ISL may be reached at 244-3265. ISL tutoring is first-come-first served. Current operating hours can be found at www.aum.edu/learningcenter

Blackboard support: Students may seek technology assistance from the ITS Help Desk located in the computer lab on the first floor of the Taylor Center. You may also call 334-244-3500 or email helpdesk@aum.edu.

Academic Integrity

The University Code of Academic Integrity is central to the ideals of this course. Students are expected to be independently familiar with the Code and to recognize that their work in the course is to be their own original work that truthfully represents the time and effort applied. Violations of the Code are most serious and will be handled in a manner that fully represents the extent of the Code and that befits the seriousness of its violation.

Class Schedule

MODULE 1: Introduction

Week 1	Introduction	Aug 20&22: introduction.pptx, syllabus-unix-c.pdf, ch1-alg.pptx
Week 2	Sequential Program Design 1	Aug 27&29: ch2-sequential-1.pptx

MODULE 2: C Program Design

Week 3	Pointer and arrays	Sep 5: ch3-pointer.pptx, Programming Assignment 1
Week 4	User-defined Data Type	Sep 10&12: ch4-struct.pptx
Week 5	Memory Operations	Sep 17&19: ch5-mem.pptx
Week 6	File Operations	Sep 24&26: ch6-file.pptx, Programming Assignment 2 Due: Programming Assignment 1
Week 7	Review &Midterm Exam	Oct 1&3: Module 1 and 2

MODULE 3: Unix and Shell

Week 8	Unix Utilities	Oct 8&10: ch7-utilities.pptx, Class Project (Teamwork)
Week 9	Shell Programming I	Oct 15&17: ch8-shell-1.pptx
Week 10	Shell Programming II	Oct 22&24: ch9-shell-2.pptx, Programming Assignment 3 Due: Programming Assignment 2
Week 11	Shell Programming III	Oct 29&31: ch10-shell-3.pptx

MODULE 4: Advanced C and Unix

Week 12	Threads and Processes	Nov 5&7: ch11-thread-process.pptx
Week 13	Auto Tools	Nov 12&14: ch12-auto.pptx
Week 14	Class Project Demo	Nov 19&21
Week 15	Holiday	Nov 25&29: Thanksgiving
Week 16	Review & FINAL EXAM[1]	Dec 3: Module 3, 4 Due: Programming Assignment 3

[1] Dec. 5 (10:45 am to 1:15 pm)