Academic Term: Spring 2023

Instructor:

Cheryl Resch

Cheryl.resch@ufl.edu

Office Hour

Tuesday 8-9 pm or by appointment

https://ufl.zoom.us/j/7182892352

Microsoft Teams

https://teams.microsoft.com/l/team/19%3axdAkqfKDfPqaw_8CKN6Qt6rFCO53M68atHF2gEK
aHuw1%40thread.tacv2/conversations?groupId=8d4ee3b2-3469-4e24-8511-
8b6be380a93e&tenantId=0d4da0f8-4a31-4d76-ace6-0a62331e1b84

Course Description

Covers the mathematics of discrete events; i.e., events that involve distinct elements, finite structures of distinct elements or finite sampled versions of continuous phenomena (such as movement). (M) 3 credit hours

Course Pre-Requisites / Co-Requisites

Prerequisite: MAC 2233 or MAC 2311 or MAC 3472

Corequisite: COP 3504 or COP 3503

Attributes: General Education – Mathematics

Course Objectives

The purpose of this course is to introduce students to the techniques required in order to think mathematically about how a computer operates. Included within the topics of discussion will be: propositional logic, algorithms, time complexity, mathematical reasoning, relations, and trees. Weekly discussion sessions, homework exercises, and problem solving will enable you to practice and learn the techniques discussed. Due to the nature and complexity of this field of study, the course will be time consuming and requires serious dedication on the part of each student. Be careful not to fall behind, success in this course requires consistent effort and practice.

Required Textbooks and Software

- McGraw-Hill Connect
- Discrete Mathematics and Its Applications
- Kenneth Rosen
- McGraw-Hill Higher Education
- 2018
- 8th Edition

The textbook comes with Connect. Purchasing through the steps provided in MGH_Connect.pdf will link directly to the Canvas plugin.

Course Schedule

Here is a general schedule for the semester. Please refer to the Canvas Announcements and Modules for final details about each topic, exact dates, and the specific schedule we implement this semester.

Dates	Week	Topics	Readings
Jan 9-15	1	Logic, Predicates	1.1-1.4
Jan 16-22	2	Inference, Proofs	1.5-1.8
Jan 23-29	3	Exam 1, Sets	2.1-2.2
Jan 30-Feb 5	4	Functions, Sequences	2.3-2.5
Feb 6-12	5	Algorithms, Complexity	3.1-3.3
Feb 13-19	6	Number Theory	4.1-4.3
Feb 20-26	7	Cryptography, Exam 2	4.6
Feb 27-Mar 5	8	Induction	5.1-5.2
Mar 6-12	9	Induction, Recursion	5.3-5.4
Mar 20-26	10	Counting	6.1-6.2
Mar 27-April 2	11	Counting	6.3-6.5
April 3-9	12	Exam 3, Probability	7.1
April 10-16	13	Probability	7.2-7.3
Aug 17-23	14	Graphs	10.1-10.3
April 24-26	15	Exam 4	
April 29-May 5		FInal Exam	

Exam Dates: Jan 22-25, Feb 19-22, April 2-5, April 23-26

Attendance Policy, Class Expectations, and Make-Up Policy

Homeworks, Reading Exercises may not be turned in late.

Exams may be made up with a university approved excuse given in advance.

Grades on any assignment may be discussed with me via email or in office hours up to seven days after the grade was released.

Evaluation of Grades

Assignment	Percentage of Final Grade
Exams (4)	70%
Homeworks (12, one drop)	15%
Reading Exercises (12, one drop)	15%
	100%

Grading Policy

Percent	Grade	Grade Points
93 - 100	A	4.00

90.0 – 92.9	A-	3.67
87 - 89.9	B+	3.33
83 - 86.9	B	3.00
80.0 – 82.9	B-	2.67
77 - 79.9	C+	2.33
73 - 76.9	C	2.00
70 – 72.9	C-	1.67
67 - 69.9	D+	1.33
63 - 66.9	D	1.00
60.0 – 62.9	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy may be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting https://disability.ufl.edu/students/get-started/. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at https://gatorevals.aa.ufl.edu/students/. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via https://ufl.bluera.com/ufl/. Summaries of course evaluation results are available to students at https://gatorevals.aa.ufl.edu/public-results/.

University Honesty Policy

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: https://registrar.ufl.edu/ferpa.html