

SYLLABUS

MATH 174-01 Discrete mathematics

FALL 2019

CONTACT INFORMATION

Instructor:	Douglas Weathers
Office:	Smith Science 218N
Office Hours:	T 9:30-10:20, W 10-10:50, Th 11-11:50 & 1-1:50, F 10-10:50 and by appt.
Telephone:	843-349-6694
E-mail:	wweathers@coastal.edu
Class:	MWF 1-1:50 Wall 119

COURSE DESCRIPTION

Introduction:	In between any two real numbers there is another. Contrast this with the integers (whole numbers), where for example there is no integer between 1 and 2. A discrete structure is one that is more like the integers than the real numbers, i.e. a structure with “steps”. Discrete structures will be the setting where we tackle the real goal of this course: appreciating, working with, and learning to communicate mathematical ideas.
Prerequisite:	MATH 130 or 130I with a C or better.
Required materials:	There is no required textbook for this course. You will be provided with notes and suggested problems with solutions. Kenneth Rosen’s <i>Discrete mathematics</i> is recommended for reference and is available from the library.
Moodle:	I will be using Moodle (https://moodle.coastal.edu) to post course materials and your grades.
Course topics:	“Set theory, logic divisibility, induction, combinatorics, relations, functions, graphs, digraphs, and Boolean algebra.”
Course objectives:	“Successful students in this course will learn particular mathematical facts and then apply them. This will be achieved through five themes: mathematical reasoning, combinatorial analysis, discrete structures, algorithmic thinking, and applications and modeling.”
Academic integrity:	“Coastal Carolina University is an academic community that expects the highest standards of honesty, integrity and personal responsibility. Members of this community are accountable for their actions and are committed to creating an atmosphere of mutual respect and trust. For more, see https://www.coastal.edu/aic .”

Student outcomes: “Students successfully completing MATH 174 will have the ability to:

1. Translate English statements to logic expressions, and simplify those expressions.
2. Use direct and induction proof techniques to prove mathematical statements.
3. Work with the basic concepts of sets and set operations.
4. Use modular arithmetic and congruences.
5. Derive fundamental facts about prime numbers and integers.
6. Use basic counting principles to compute probabilities.”

Accommodations: “Coastal Carolina University is committed to equitable access and inclusion of individuals with disabilities in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. Individuals seeking reasonable accommodations should contact Accessibility & Disability Services (843-349-2503 or <https://www.coastal.edu/disabilityservices/>).”

If you require accommodations, I am happy to help. Let me know immediately (i.e. NOT as you hand in your first exam).

Attendance: You are expected to attend every class. For the official CCU attendance policy, see <https://www.coastal.edu/policies/pdf/acad-125classattendance.pdf>. Of course, we will make exceptions in the case of incapacitating illness (get an excuse), official representation of the University (get an excuse), death of a close relative, or a religious holiday. In any of the above cases, you are responsible for work or notes missed.

Students who miss (without excuse) 25% of our meetings will be given an F.

Cell phones: No cell phones are allowed in class.

Calculators: No calculators are allowed on exams or quizzes. (You will not need one.)

Basic decency: You are to treat your fellow classmates with respect at all times. Since we don't know every student's full life experience, we will avoid making light of sensitive or possibly traumatic topics. Anyone who is intentionally disrespecting a classmate will be made to leave.

Tentative calendar:

Classes begin	Wednesday, 8/21
Labor Day holiday	Monday, 9/2
EXAM 1	Friday, 9/13
Student holiday	Friday, 10/4
EXAM 2	Friday, 10/11
Last day to drop with a W	Monday, 10/28
EXAM 3	Friday, 11/1
Thanksgiving break	Monday, 11/25-Friday, 11/29
EXAM 4	Monday, 12/2
Last day of class	Friday, 12/6
FINAL EXAM	Tuesday, 12/10

Grade cutoffs: Cut-off numbers for each letter grade are given below.

A	B+	B	C+	C	D+	D	F
90	87	80	77	70	67	60	0

Your grade is a weighted average of the items in the following categories.

Midterm exams	60%
Final exam	25%
Homework	15%

Students are encouraged to not worry about their grade and instead focus on understanding the material. The grade should then follow.

Exams: There will be four midterm exams. Make-ups will be given solely at my discretion, and not after the test has been returned. (Let me know immediately if you will miss an exam.) The final exam will be **Tuesday, December 10** at 1:30pm in the usual classroom. The final will replace your lowest exam grade if it is to your benefit.

Homework: Problems from the note packet will be assigned weekly to be turned in on the student's own paper. Students are encouraged to work together and ask me questions in class and via e-mail.

Tutoring: If you find yourself struggling with the material, it is your responsibility to seek help, which I am happy to give! Please e-mail me, attend any of my office hours, or ask questions in class.

The terms of this syllabus are tentative and subject to change with fair notice.