

Mathematics 2345 — Elements of Discrete Mathematics — Fall 2007

Instructor: Dr. Nancy Van Cleave **Office hours:** 2:00–2:50 MWRF
and by appointment or chance
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Prerequisite : Successful completion of MAT1441G (Calc I); some programming in C++ will be required for this course.

Text : **Discrete Mathematics and Its Applications, 4th ed.**, by Kenneth Rosen, McGraw-Hill, 1999.

Course Overview : A survey of discrete structures and methods. Includes: logic, sets, functions, algorithms, induction proofs, recursion relations, Boolean algebra, and modeling computation.

Academic Integrity : It is assumed the work you do is your own. However, occasionally it may be necessary to ask someone for help. You are permitted to do so, but you must meet these requirements:

- You **acknowledge** the help received at the top of the paper you are handing in. Be specific. Describe the problem you had, the nature of the help you received, and who helped you.
- You **understand** the solution you turned in. You should be able to explain the reasoning behind any solution for which you received help.

If the help needed is related to programming, **ideas** may be discussed, but you should never copy code from another student or allow yours to be copied. The same is true of other homework—never copy from another student, nor allow other students to copy your solutions.

The Judicial Affairs Office will be used to deal with instances of academic dishonesty and/or plagiarism. Refer to page 54 of the EIU 2006-2007 catalog for further details.

Evaluation : There will be three written exams, homework and programming assignments, quizzes, and a comprehensive final exam for this course. The relative weights of these components are as follows:

Exams	15% each
Homework and Quizzes	15%
Programs and Reports	10%
Final	30%

Course Grade : The following scale will be used as a first approximation to your grade:

90–100: A 80–89: B 70–79: C 60–69: D 0–59: F

In borderline cases, factors such as overall trends and the final exam score will be taken into consideration. It is possible that the cut-off scores given above will be lowered. As a result, an overall score of 80 is *guaranteed* to receive at least a B, whereas a score of 78 *might* result in a B.

Miscellaneous :

- Make-up exams are available only if you notify me in advance. If you are unable to contact me by phone or email, you can leave a message with the departmental office (581-2028). **Make-up exams are available only if agreed upon before the regular exam is given. Further, it is your responsibility to provide adequate documentation of the reasons for the delay.**
- Please ask questions when you experience problems. Ask in class or see me outside of the regularly scheduled meeting times.

If you have a documented disability and wish to receive academic accommodations, please contact the Coordinator of the Office of Disability Services (581-6583) as soon as possible.

MATHEMATICS 2345 – Tentative Schedule – Fall 2007				
WEEK	DATES	READING	TOPICS	NOTES
1	8/20–8/24	1.1-1.2	Logic	8/24 last day to add
2	8/27–8/31	1.3-1.5	Logic, Sets, Set Operations	8/31 last day drop/no grade
3	9/3–9/7	1.6-1.8, 2.1	Functions, Algorithms	9/3 Labor Day - no classes
4	9/10–9/14	2.2-2.4	Algorithms, Integers	
5	9/17–9/21	2.5	Number Theory Applications	Exam 1 – Friday, 9/21
6	9/24–9/28	3.1-3.2	Proofs	
7	10/1–10/5	3.2-3.3	Proofs, Recursion	
8	10/8–10/12	3.2-3.4	Recursion	10/10 - Midterm 10/12 Fall Break, no classes
9	10/15–10/19	3.4-3.5	Recursion, Correctness	Exam 2 — Friday, 10/19
10	10/22–10/26	5.1-5.3	Recurrence Relations	
11	10/29–11/2	6.1-6.3,6.5	Relations	11/2 last day withdraw W
12	11/5–11/9	9.1-9.3	Boolean Algebra	
13	11/12–11/16	9.3-9.4	Boolean Algebra	
–	11/19–11/23			Thanksgiving Recess, no classes
14	11/26–11/30	10.1-10.3	Modeling Computation	Exam 3 — Friday, 11/30
15	12/3–12/7	10.4-10.5	Modeling Computation	12/7 - last class day
2345	MWF 12:00	FINAL	Monday, 12/10	12:30 – 2:30