1. Course Information

Prerequisite: Math 261 with minimum grade of C.

Text: *Mathematics, A Discrete Introduction*, by Edward R. Scheinerman
You may use any of the three editions.

Recommended reference: *Discrete and Combinatorial Mathematics*, by Ralph Grimaldi

Calculator: No calculators are allowed on exams.

Topics
This course will cover elementary counting principles, mathematical induction and other proof methods, relations and functions, and graphs. This includes selected sections of chapters 1-5 and 9 in the Scheinerman text. Our focus will be on logical thinking and problem solving.

By the end of this course, you should be able to:

- apply counting methods to a solve a variety of problems
- explain your solutions to someone who understands basic counting methods
- read and write statements involving standard mathematical notation, including quantifiers, set operations, and “if…then…” structures
- write simple proofs using direct methods, mathematical induction, or contradiction
- read and write a variety of notation for relations and functions, and identify standard properties of relations and functions
- apply equivalence relations and bijective functions in solving counting problems
- understand standard graph definitions, and identify examples of such items as subgraphs, trees, and independent sets
- use graphs to model and solve problems

Blackboard
Students should check the Blackboard page for the course regularly. Important information such as the syllabus, course announcements, course documents and course grades will be posted on Blackboard. The login page is at [blackboard.olemiss.edu](http://blackboard.olemiss.edu) and basic instructions for using the system can be found at [www.olemiss.edu/blackboard](http://www.olemiss.edu/blackboard) or by clicking on “Help” in Blackboard.

2. Coursework and Grading

Homework
Written homework will be assigned occasionally. There is no online homework. You are expected to work all assigned problems, although not all will be graded. Your homework grade will be determined by the correctness of your graded solutions. Late homework is not accepted.

Classwork
Classwork will be assigned and collected during the lectures. You will complete your classwork in groups. Your classwork grade will be determined by your attendance, participation and correctness of your solutions. Some number of your lowest classwork score(s), to be determined at the end of the semester, will be dropped from grade calculations.
Exams
All exams are closed book, closed notes and no calculators or other electronic devices are allowed. You must show all work (i.e. at least what you see on the board) on exams and not just the final answer, unless the question says otherwise.

There will be three midterm exams. Your lowest midterm score will be dropped. Any student who will miss a midterm exam because of an official University function may reschedule and take this exam at a time before the scheduled test administration. Other test rescheduling may be offered in rare cases, such as jury duty or military commitments.

The final exam will be cumulative and cannot be dropped. Any student having three or more final exams scheduled for the same day may arrange with the instructor to take the noon examination on some other mutually satisfactory date.

Students who miss any exam without a valid reason will score 0 on that exam.

Grade Calculation
Homework 40 points
Classwork 60 points
Best two midterms, 100 each 200 points
Final exam 200 points
Total 500 points

You can find your current score on Blackboard. Click on “My Grades” on the left in Blackboard. The correspondence between your numerical grade and your course grade is shown as follows.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Minimum Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>465</td>
<td>93%</td>
</tr>
<tr>
<td>A-</td>
<td>450</td>
<td>90%</td>
</tr>
<tr>
<td>B+</td>
<td>435</td>
<td>87%</td>
</tr>
<tr>
<td>B</td>
<td>415</td>
<td>83%</td>
</tr>
<tr>
<td>B-</td>
<td>400</td>
<td>80%</td>
</tr>
<tr>
<td>C+</td>
<td>385</td>
<td>77%</td>
</tr>
<tr>
<td>C</td>
<td>350</td>
<td>70%</td>
</tr>
<tr>
<td>D</td>
<td>300</td>
<td>60%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 300</td>
<td>&lt; 60%</td>
</tr>
</tbody>
</table>

Assigning a letter grade of “I” (incomplete) requires the permission of the Department of Mathematics.

3. Classroom Policies

Attendance Policy
Absences will lower your classwork grade, unless you provide a legitimate excuse. The instructor will verify attendance manually. If absent from a class, you are responsible for any material, assignments, or announcements that you miss. No special accommodations, such as copies of lecture notes, will be provided. You are encouraged to ask other students for the lecture notes, or to come to office hours if you have questions on what you missed.

Electronic Devices
Cell phones, pagers, and other electronic devices that might cause disruption should be turned off or silenced before class begins.

4. Important Dates

<table>
<thead>
<tr>
<th>Date</th>
<th>Day</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/20</td>
<td>Monday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>08/24</td>
<td>Friday</td>
<td>Last add date</td>
</tr>
<tr>
<td>08/31</td>
<td>Friday</td>
<td>Late add deadline</td>
</tr>
<tr>
<td>09/03</td>
<td>Monday</td>
<td>Labor Day, no classes</td>
</tr>
<tr>
<td>09/10</td>
<td>Monday</td>
<td>Non-attendance drop date</td>
</tr>
<tr>
<td>09/14</td>
<td>Friday</td>
<td><strong>Exam 1</strong></td>
</tr>
<tr>
<td>10/01</td>
<td>Monday</td>
<td>Withdrawal deadline</td>
</tr>
<tr>
<td>10/17</td>
<td>Wednesday</td>
<td><strong>Exam 2</strong></td>
</tr>
<tr>
<td>11/16</td>
<td>Friday</td>
<td><strong>Exam 3</strong></td>
</tr>
<tr>
<td>11/17</td>
<td>Saturday</td>
<td>Thanksgiving Holiday begins</td>
</tr>
<tr>
<td>11/26</td>
<td>Monday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>11/30</td>
<td>Friday</td>
<td>Classes end</td>
</tr>
<tr>
<td>12/03</td>
<td>Monday</td>
<td><strong>Final Exam (12:00 noon at 139 Holman Hall)</strong></td>
</tr>
</tbody>
</table>
5. Additional Policies

Course Withdrawal
The withdrawal deadline is Monday, October 01, 2018.

After the course withdrawal deadline, a student may drop a course only in cases of extreme and unavoidable emergency as determined by the student’s academic dean. Unacceptable reasons for late withdrawal include dissatisfaction over an expected grade or a change in a student’s degree program or major. In no case may a class be dropped after the last regular class day in any semester, session, or term. Courses dropped after the course withdrawal deadline will still appear on the student’s official transcript. The W mark will be recorded if the student is passing the course at the time of withdrawal; the F grade will be recorded if the student is failing.

Disability Access and Inclusion
The University of Mississippi is committed to the creation of inclusive learning environments for all students. If there are aspects of the instruction or design of this course that result in barriers to your full inclusion and participation, or to accurate assessment of your achievement, please contact the course instructor as soon as possible. Barriers may include, but are not necessarily limited to, timed exams and in-class assignments, difficulty with the acquisition of lecture content, inaccessible web content, and the use of non-captioned or non-transcribed video and audio files. If you are approved through SDS, you must log in to your Rebel Access portal at https://sds.olemiss.edu to request approved accommodations. If you are NOT approved through SDS, you must contact Student Disability Services at 662-915-7128 so the office can:
1. determine your eligibility for accommodations,
2. disseminate to your instructors a Faculty Notification Letter,
3. facilitate the removal of barriers, and
4. ensure you have equal access to the same opportunities for success that are available to all students.

Academic Honesty
Cheating on any exam, quiz, classwork, or homework, theft of exam questions or possession of exam questions prior to the time for the exam shall all be offenses subject to the appropriate penalties. The penalty for commission of any offense set out above is failure in the course, and subject to the approval of the Chancellor, dismissal or suspension from the university.

6. Additional Notes

No Correlation of Course Grades
Earning a certain grade in a previous or concurrent course does not guarantee or imply that you will earn the same or a higher grade in this course. Similarly, earning a certain grade in this course does not guarantee or imply that you will earn the same or a higher grade in future courses. Your grade in this course depends on your performance in this course and this course alone.

Updates to this Document
If it becomes necessary to modify any information in this syllabus, you will be notified in class and on Blackboard. You should check Blackboard regularly for announcements.

Last updated on August 20, 2018.