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 quizzes and 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 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

**Absences**  
A sign-in sheet will be circulated in class for you to indicate that you came to class. Once you have 5 unexcused absences from class, you will have 5 points deducted from your total score. After that, you will have 5 more points deducted for every 3 extra unexcused absences.

Students who miss class for a legitimate reason, such as illness or participation in a University function, should provide documentation for their absence. Students who need to leave class early should notify the instructor in advance, otherwise they will be marked absent. The instructor may call roll from time to time to verify attendance. Your attendance record will be updated periodically on Blackboard.
Homework and Quizzes
Written homework will be assigned weekly. There is no online homework. You are expected to work all assigned problems, although not all will be graded. Any homework problem, whether or not it is graded, may appear on an exam. If you are not sure about the solution to a homework problem, you are encouraged to ask about the problem in class or during the office hours.

On certain days, homework will be collected but not graded. Instead, a quiz will be given in class. The questions on the quiz will be certain problems from the homework due on that day. The quiz dates may not be announced in advance. Quizzes are closed book, closed notes and no calculators or other electronic devices are allowed.

In all homework assignments and in-class quizzes, you must show all work (i.e. at least what you see on the board) and not just the final answer.

Homework assignments will be graded on a coarse grading scale. For example, a question may be worth 2 points. In such a case, 2 points corresponds to a correct or almost correct solution, 1 point corresponds to a solution with some errors or omissions, and 0 points corresponds to a lack of understanding or effort in the solution. Quizzes will be graded on a finer grading scale, such as from 0 to 10 points.

Late homework is not accepted and make-up quizzes are not given. Some number of your lowest homework and quiz scores, 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. Exams will be graded on a fine grading scale.

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
<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>60</td>
</tr>
<tr>
<td>Quizzes</td>
<td>40</td>
</tr>
<tr>
<td>Best two midterms, 100 each</td>
<td>200</td>
</tr>
<tr>
<td>Final exam</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
</tr>
</tbody>
</table>

You can find your current score on Blackboard. Click on “My Grades” on the left in Blackboard. Excessive absences will reduce your score. A minimum score of 465 points (93%) guarantees an A as your course grade, 450 points (90%) A-, 435 (87%) B+, 415 (83%) B, 400 (80%) B-, 385 (77%) C+, 350 (70%) C, 300 (60%) D. A score below 360 points (< 60%) may result in an F. Assigning a letter grade of “I” (incomplete) requires the permission of the Department of Mathematics.

3. Classroom Policies

Attendance
You are responsible for any material, assignments, or announcements that you miss if absent from a class. No special accommodations, such as copies of lecture notes, will be provided. You are encouraged to ask other students for the lecture notes, or 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>8/21</td>
<td>Monday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>8/25</td>
<td>Friday</td>
<td>Last add date</td>
</tr>
<tr>
<td>9/01</td>
<td>Friday</td>
<td>Late add deadline</td>
</tr>
<tr>
<td>9/04</td>
<td>Monday</td>
<td>Labor Day, no classes</td>
</tr>
<tr>
<td>9/11</td>
<td>Monday</td>
<td>Non-attendance drop date</td>
</tr>
<tr>
<td>9/15</td>
<td>Friday</td>
<td><strong>Exam 1</strong></td>
</tr>
<tr>
<td>10/02</td>
<td>Monday</td>
<td>Withdrawal deadline</td>
</tr>
<tr>
<td>10/18</td>
<td>Wednesday</td>
<td><strong>Exam 2</strong></td>
</tr>
<tr>
<td>11/17</td>
<td>Friday</td>
<td><strong>Exam 3</strong></td>
</tr>
<tr>
<td>11/18</td>
<td>Saturday</td>
<td>Thanksgiving Holiday begins</td>
</tr>
<tr>
<td>11/27</td>
<td>Monday</td>
<td>Classes resume</td>
</tr>
<tr>
<td>12/01</td>
<td>Friday</td>
<td>Classes end</td>
</tr>
<tr>
<td>12/04</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 02, 2017.

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.

Academic Needs
It is the responsibility of any student with a disability who requests a reasonable accommodation to contact the Office of Student Disability Services (915-7128). Any request for extended testing time made through that office must be made prior to the date of the test.

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 21, 2017.