

# Math 416/CSC 416, Introduction to Combinatorics, Nathan Reading

<b>Prerequisites</b>	MA 225 or CSC 226 or equivalent. This means you should have taken a course which asked you to understand proofs and write your own proofs.
<b>Credit load</b>	3 credits
<b>Instructor</b>	Nathan Reading
<b>Office</b>	SAS 4118
<b>Telephone</b>	919-515-3261. This is an office desk phone that does not accept text messages. Email is a much better way to reach me than phone.
<b>Email</b>	reading AT math DOT ncsu DOT edu
<b>Course website</b>	<a href="http://www4.ncsu.edu/~nreadin/416">http://www4.ncsu.edu/~nreadin/416</a> . You are responsible for material on this site. You will be notified by email or in class when new information is posted on the site.
<b>Class email list</b>	A class email list will be established within the first few days of the class. You are responsible for any information emailed to the list. You are expected to check your ncsu email account daily.
<b>Class Sessions</b>	Monday, Wednesday, and Friday 10:40-11:30 am in SAS 1102. <a href="#">Classroom Guidelines</a>
<b>Office hours</b>	TBD Scheduled office hours are a "drop-in" service. No need to tell me whether you are coming. It may be possible to make appointments at other times, but please try to use the scheduled office hours as much as possible. To make an appointment, email me. I discourage students from simply dropping by my office outside of scheduled office hours.
<b>Text</b>	<i>Combinatorics</i> by Russel Merris, (2nd edition, Wiley 2003).  This book is required book, and we will use it a lot. You can access it online for free (because the NCSU library has paid for online access for all of us). <a href="#">Online access to textbook</a> If that doesn't work, try getting it through the library: <a href="#">Online access through the library</a> The book is also on reserve (paper copies) at the library: <a href="#">Details on reserve copies in the library</a>
	There will be a <a href="#">homework assignment</a> due in class each Monday. You are encouraged to collaborate on solving the assigned problems as long as everyone in the group gains a thorough understanding of the solution. Furthermore, each student must write up the solution in their own words based on their own understanding.  All homework problems are asking for an answer in clear English (with math symbols allowed), giving a careful and correct explanation of how the problem is solved. Imagine

<b>Homework</b>	<p>you are writing to a mathematically literate person who does not know how to solve the problem. The balance of prose vs. symbols required in the solution will vary greatly, from 2-3 words followed by a symbolic or numerical calculation to several paragraphs of prose with few or no symbols. Part of the point of this course is for the student to develop judgement about how to explain mathematics. Some things that could cause you to be marked down are: using vague language; using words like "obviously" or "clearly" to hide the lack of an explanation; relying too much on the grader to figure out "what you meant;" rambling or extraneous prose that fails to focus concisely on the core issue.</p> <p>Note that there are hints and answers in the back of the book to some of the assigned problems. You can treat these hints as if they were useful conversations with classmates: They help you understand the problems and then you must write up the solution in your own words based on your own understanding. Note also that the hints are rarely complete solutions, so you'll get no credit for simply copying them. Even when the hint is "the answer," you'll usually still need to explain the answer.</p> <p>Here are the <a href="#">homework assignments</a>.</p>
<b>Reading Assignments, Lecture Schedule and Tests</b>	<p>Students are expected to read the text in addition to attending lectures. Here is the <a href="#">most up-to-date schedule</a> for the class. This schedule (except for test dates) is subject to change as the course progresses.</p>
<b>Midterm exams</b>	<p>There will be <b>one midterm exam</b> in class on Monday, Feb. 25.</p>
<b>Final Exam</b>	<p>The final exam is Friday, May 3, 8:00--11:00 a.m., in the usual room.</p>
<b>Comments and answers</b>	<p>Here are some <a href="#">Comments and answers on quizzes and tests</a>.</p>
<b>Grading</b>	<p>The components of your grade are:  Homework: 50% of grade  Midterm: 20% of grade  Final exam: 30% of grade.</p>
<b>Wolfware</b>	<p>I will be keeping track of your grades on Moodle (Wolfware), so you will be able to see them as soon as they are posted.</p>
<b>Succeeding in this course</b>	<p>I would expect an average student to spend 6-9 hours per week outside of class on this course. This amount can vary: In the past, I have had students who are not well-prepared for the class complain that they spend more than 10 hours a week and aren't able to complete the assignments. You are advised to get most of the weekly assignment done early to allow time for you to get your questions answered (perhaps in office hours). Starting the assignment the weekend before it is due will probably not be a good strategy. It will also be to your advantage to spend some time each week making a first pass through the material from the text that we plan to cover in class that week, so you can get your questions/confusions clarified in class.</p> <p>If you are working hard and still struggling, please get in contact with me and we can talk.</p>

<b>N.C. State Polices, Regulations, and Rules</b>	<p>Students are responsible for reviewing the NC State University polices, regulations, and rules which pertain to their course rights and responsibilities:</p> <p><a href="#">Equal Opportunity and Non-Discrimination Policy Statement</a> with additional references at <a href="https://oied.ncsu.edu/equity/policies/">https://oied.ncsu.edu/equity/policies/</a>  <a href="#">Code of Student Conduct</a>  <a href="#">Grades and Grade Point Average</a>  <a href="#">Credit-Only Courses</a>  <a href="#">Audits</a></p>
<b>Policy on Attendance and Make-ups</b>	<p>Attending every lecture and recitation section (in its entirety) is considered part of the course requirement. No provisions will be made for students to make up missed work or tests except as spelled out in the University's attendance regulation available at <a href="http://policies.ncsu.edu/regulation/reg-02-20-03">http://policies.ncsu.edu/regulation/reg-02-20-03</a> .</p>
<b>Policy on Incompletes</b>	<p>Incompletes are not offered except in cases where special circumstances (such as outlined in the attendance regulation mentioned above) make it impossible for a student to complete the course. Even in these special circumstances, incompletes will not be offered unless the student was in a position to pass the class before the special circumstance arose. In particular, incompletes cannot be used as a way to "bail out" when a student feels that they cannot pass the course or feels they cannot do all the work they put off until the end of the semester.</p>
<b>Statement for students with disabilities</b>	<p>Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with the Disability Services Office at Suite 2221, Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see <a href="#">Academic Accommodations for Students with Disabilities Regulation (REG02.20.01)</a> .</p>
<b>Academic Integrity</b>	<p>Students are expected to conform to standards of academic integrity as described in the Code of Student Conduct, which can be found in the <a href="#">Code of Student Conduct</a>. The student, by signing or writing their name on a homework assignment or test, affirms that they have neither given nor received unauthorized aid. (See "Homework Assignments" above for guidelines on acceptable collaboration on homework.)</p>
<b>NCSU Counseling center:</b>	<p>The Counseling Center offers confidential counseling to NC State students experiencing personal, academic or vocational problems. Check out <a href="http://counseling.dasa.ncsu.edu">counseling.dasa.ncsu.edu</a>.</p>
<b>Help for students in distress:</b>	<p>Although the counseling center is a great help, sometimes it's hard to recognize when we need help. So we need to look out for each other too. Occasionally, you may come across a fellow student whose behavior worries you. You can and should report worrisome behavior to the NC State's Students of Concern website: <a href="http://studentsofconcern.ncsu.edu">http://studentsofconcern.ncsu.edu</a>. Although you can report anonymously, it is preferred that you share your contact information so they can follow-up with you personally.</p>