

POLICIES/SYLLABUS

Instructor: Eric Moorhouse, Ross Hall 6³ = 216,
<http://ericmoorhouse.org>, email moorhous@uwyo.edu
phone (307) 766-4394.

Meets: MWF 8–8:50 am, CR 141.

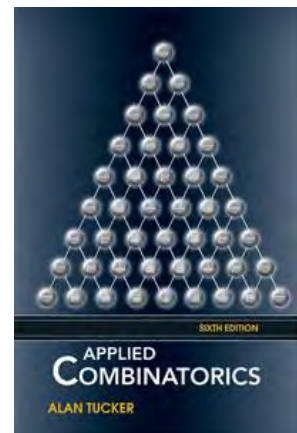
Prerequisite: Grade of C or better in Math 2250
(Elementary Linear Algebra)



Course Delivery: Class is delivered by live lecture, which you are expected to attend. I will also post video recordings and pdf slides of classes for your use in reviewing material. Although your attendance is not strictly required, *students who attend regularly at these times can expect to have stronger class performance.* Some of the course content will also be featured in printed handouts and instructional videos which you will watch on your own time; and you are expected to watch these videos as well because much of this content will not be repeated during class time.

Office Hours: MWR 2:30–3:50pm. In addition to my regularly scheduled office hours, please feel free to see me at other times, either by appointment or at other times if I am not busy. Ordinarily, you will visit me in my office (Ross Hall 216) unless there is some particular reason for visiting remotely, in which case we can arrange to use my office hour link (found on our WyoCourse site). Office hours are subject to change with or without notice, so you are advised to check my current schedule posted at <https://ericmoorhouse.org/schedule.html>.

Textbook: Tucker, *Applied Combinatorics*. The current edition is either 6th or 7th edition, and should be available at our University Store in either printed or digital format, according to your preference. Any older edition dating back to the 3rd edition is also acceptable, and these may be available and less expensive. Printed handouts will be prepared and distributed as the course progresses. These will also be posted in electronic format on the course website (see below). It will be your responsibility to read/assimilate these resources, keeping pace with the lectures, and to ask questions if anything is unclear.



Grading Scheme:

I will assign grades (A, B, C, D, F, W) *at the end of the semester* according to the scale: A=exceptional, B=very good, C=adequate, D=poor, F=fail, W=withdrawal. I always encourage students to consult me at any time during the semester with questions, including (but not restricted to) questions about your progress in the course. You may ask questions by email, at your own risk (remember that email is not secure); but questions asked in person typically receive more prompt and complete answers. Grades for tests and course assignments may be checked on WyoCourses but be warned: *WyoCourses does not supply letter grades for the course*. For further information regarding assignment of letter grades, refer to the FAQ (see below) and consult with the instructor.

20%	Homework
25%	Test 1
25%	Test 2
30%	Final Exam
100%	Total Grade

Homework:

Homework is a vital part of this course. Mathematics, more than most subjects, is one which you learn not by listening and absorbing, but by trying out yourself. The learning of mathematics is also more sequential than that of other subjects ... so all the more need to be regular in doing problems yourself! Homework assignments will be assigned approximately twice per month, and will be submitted to me through WyoCourses by specified due date (usually after 3–4 classes) by 5:00pm. The following expectations apply to submitted homework:

- Write clearly. Part of the grade reflects organization and clarity of presentation.
- Most solutions require sentence answers. Correct use of vocabulary, spelling, grammar, and punctuation is expected for full credit.
- There is no need to re-write questions.

It is fine for you to discuss the homework with other students. However, *do not copy anyone else's work directly*, whether or not they are in the class. Evidence of copying is grounds for receiving zero on a question or on an assignment; but more importantly, of course, you won't be adequately preparing yourself for the tests in this way. For further information, consult the FAQ (see below).

Tests:

We will have two mid-term test during class time, and one final exam. All are 'closed book'; however, you will be permitted to use a handheld calculator and one 'cheat sheet' (one 8½×11 inch sheet with information written on one side in your own handwriting). Sharing of calculators or other aids during the test and the

exam is not permitted. No other devices are permitted. Cell phones must be switched off (and in particular cannot be used as calculators). Each test will cover a specified unit of material only, but the final exam will be comprehensive. The final exam is scheduled for 8:00–10:00am on Friday, May 12, 2023, in our usual lecture room (CR 141).

Make-up tests for those who miss tests, will only be granted in cases of verifiable illness or the most extreme circumstances (at my discretion). Please contact me in advance of such a situation if possible. Even in legitimate cases, the make-up test will be harder than the original test.

MATH 3700 Course Website:

Course-related announcements, links, handouts, homework solutions, etc. will be posted at the course website <https://ericmoorhouse.org/courses/3700/> (not to be confused with WyoCourses).

Content Covered:

Combinatorics means different things to different combinatorialists (specialists in the subject), but roughly, its two main themes are

- (i) discrete structures, which are studied for their patterns and relations (rather than operations, which are emphasized in algebra). In particular, we study graphs (covered in Chapters 1-4 of the 6th edition). As time permits, we will also cover combinatorial designs and their applications.
- (ii) tools and techniques for counting. See Chapters 5-8 of the 6th edition, covering some important integer sequences, recurrence relations, and generating functions.

Frequently Asked Questions:

For more detail on policies of course administration, learning progress, etc. please refer to <http://ericmoorhouse.org/courses/FAQ.html>. Most questions students ask me are already answered in this document.

Students with Disabilities:

If you have a physical, learning or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability, to the University Disability Support Services (UDSS) in SEO, Knight Hall 330, phone 766-6189.

Additional Resources:

- Ask for help when you need it. For academic assistance for this course please contact me for available resources. Assistance is available through the [Dean of Students](#).
- Please let us know if you notice another student who needs help in our (anonymous) [UWyo Cares](#) referral option.
- If you have any challenges related to IT (Information Technology), please contact the [UWIT Service Center](#).

Appropriate Conduct: For issues of academic honesty/dishonesty, classroom deportment, etc., we refer to

- [UW Student Code of Conduct](#) (UW Dean of Students)
- [Students & Teachers Working Together](#) (UW College of Arts & Sciences)

Links to both documents appear on our course website.

Syllabus Changes: I will alert you to any possible course format changes in response to UW decisions about community safety during the semester.