

MA 105: Mathematics of Finance
Summer I 2020 (May 13-June 18), North Carolina State University,

Instructor: Benjamin Freedman
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Course Page. We will be using Moodle as our main course hub. Available via <https://wolfware.ncsu.edu/>.

Course Description. This course focuses on the basic mathematical tools of finance with an emphasis on real-world applications. In particular, we will cover the time value of money, simple interest, bank discounting, compound interest, ordinary annuities, amortization, sinking funds, perpetuities and capitalized costs.

Required Materials.

- (1) *Mathematics of Finance* by Marilyn McCollum. Free course manual available online via the Moodle page, or at <http://www.courses.ncsu.edu/ma105/common/ma105manual.pdf>.
- (2) *WebAssign Access Code*. Available for purchase at <http://www.webassign.net/ncsu/>. Log in using Unity ID and password. You will be prompted to purchase a code within 10 days.
- (3) *Business/Financial Calculator*. HP-10BII+ required.

Structure and Grading. The break-down of grades for the course is as follows:

Component	Weight	Details
WebAssign	(15%)	Deadlines online.
Exam 1*	(20%)	Open book, open notes: Wednesday, May 20
Exam 2*	(20%)	Open book, open notes: Monday, June 1
Exam 3*	(20%)	Open book, open notes: Thursday, June 11
Final Exam	(25%)	Comprehensive: June 17-18

*dates subject to change

Final grades will be computed according to the following table:

A+	100 - 98	A	97.99 - 92	A-	91.99 - 90
B+	89.99 - 88	B	87.99 - 82	B-	81.99 - 80
C+	79.99 - 78	C	77.99 - 72	C-	71.99 - 70
D+	69.99 - 68	D	67.99 - 62	D-	61.99 - 60
		F	< 60		

Final Exam. The final exam dates are scheduled by the University for in room for your exam and non-negotiable. The exam will be available both of the days indicated above, and you will have a window of three consecutive hours to complete and upload the exam during this time frame.

Video Lectures. Video lectures will be recorded and posted daily on the course Moodle page, along with notes for each topic. You should plan on watching all lectures. Reach out to the instructor with any questions. A course schedule will be posted on the Moodle page indicating the material that will be covered on each day.

WebAssign Homework. All homework assignments, including skills assessments, Excel labs, and reviews, are obtained, submitted, and graded online via WebAssign. Microsoft Excel is available on all University computers. Due dates are posted on WebAssign and I will remind you in class. **It is very important to keep up with this work and not save it for the last minute:** No make-up work is available for missed assignments. It is your responsibility to ensure your computer works properly, or you can use University computers. I highly recommend you print each assignment and work it with pencil and paper before submitting.

Exams. Exams will be posted at 8:00 AM on the dates indicated above, and you will have until 11:59 PM of that same day to submit your answers. The exam can be accessed via Moodle, and you are required to upload a single pdf containing your solutions before the time it is due. Exams will be open book and open note, but you are not allowed to consult the internet or communicate with others regarding the problems.

Make-up Policy. Test make-up policy is in accordance with the University policy. Make-up tests for anticipated absences must be scheduled *before* the scheduled test date. Students with unanticipated excused absences must contact the instructor within 24 hours of the test date to schedule a make-up. Make-ups for tests will be subject to instructor availability.

Non-standard Grading. Satisfactory/Unsatisfactory grading and Audit grading will be in accordance with University policy.

Test Corrections. Answer keys for all tests will be posted on Moodle when the exams have been returned in class. If a grading error is found after looking at the posted answer key, then you should **contact the instructor** after the tests are graded. **Do not alter the original work.** Any grade change is subject to the discretion of the instructor.

Accommodations. Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, student must register with the Disability Resources Office (<https://dro.dasa.ncsu.edu/>), 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at <http://policies.ncsu.edu/regulation/reg-02-20-01>.

Academic Integrity. Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at <http://policies.ncsu.edu/policy/pol-11-35-01>. The NCSU Student Code of Conduct covers all work done in this course. Any suspected violations will be promptly reported. Academic dishonesty will result in an automatic failing grade for the course.

Course Evaluations. A formal evaluation is conducted by the University at the end of the semester and the goal is to achieve 100% class participation in this survey. Online class evaluations will be available for students to complete during the last two weeks of class. Students will receive an email message directing them to a website where they can login using their Unity ID and complete evaluations. All evaluations are confidential; instructors will never know how any one student responded to any question, and students will never know the ratings for any particular instructor.

Course Schedule. Lecture breakdown, HW due dates, and material covered on each exam will be based on class progress: be sure to check WebAssign or Moodle for current due dates.

*the instructor reserves the right to make changes to the syllabus at their discretion.