

## MATH 362 Theory of Interest, Section 1

Class Times: M W F, 10:00 – 10:50, Sci A207

Instructor: Daniel Harnett

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Office Hours: M 12:00 - 1:45, Tu, We, Th 1:00 – 1:45, or by appt.

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### Course Description:

3 cr. Interest rate measurement, force of interest, valuation of annuities with constant or non-constant payments, amortization and loan payment schedules, bond valuations, methods of measuring rate of return, spot and forward rates of interest, cash flow duration and immunization.

The primary focus of this course will be how to solve actuarial exam problems for the FM exam.

### Required Materials:

1. **Text:** *Mathematics of Investment and Credit*, 7th Ed., by S.A. Broverman, available at Text Rental
2. **Calculator:** TI-83, TI-83+, TI-84, or TI-84+ recommended. You need a calculator with standard Business/Financial functions. Cellphone calculators, and in general calculators that communicate with other calculators, are NOT allowed during tests.
3. **Computer access:** You are expected to access your UWSP email and Canvas for course announcements. Homework and documents will be posted on the Canvas on a regular basis. You should have access and some familiarity with Excel. EVERYONE (including actuaries) in the finance business uses Excel.
4. **Actuarial Exam Prep Resources:** there are many study guides and practice tests that are commercially available. These are not required for the course but will help immensely if you wish to pass the FM exam.

**Attendance:** You are expected to attend every class. If you are absent, for any reason, it is your responsibility to talk with others who were present and get notes from them. You are responsible for making sure that you have copies of all materials distributed in class, announcements made in class, and content covered in class. If you miss an exam (DON'T!), it is YOUR responsibility to contact the instructor ASAP.

**Exams:** There will be four exams during the semester, plus a final exam. The exam dates and content will be announced in class well in advance. Each exam will be multiple-choice questions, and all questions will be simulated actuarial exam questions. All exams including the final will be similar length and worth the same number of points.

Actuarial Exam FM is 35 multiple-choice questions in 180 minutes. Each class exam will be 9 multiple-choice questions in 55 minutes. Can you handle the pace?

**Homework:** There will be a written Homework before each exam which is also a practice exam. The difference is that you must write out nice solutions.

**Final Exam:** The Final Exam will be on Tuesday, May 16 at 10:15 am.

**Presentations:** We'll do presentations for xtra credit during the LWOC.

### Grade Calculation:

5 Homeworks	25%
5 Exams	75%

**Help Available:**

STUDY GROUPS: Meet with your peers on a regular basis; Free

INSTRUCTOR OFFICE HOURS: After class time most days. See top of page 1.

**Instructor Office Hours:**

If you need to talk to your instructor, you can (1) ask me in the minutes before or after class; (2) email with questions; (3) place a Zoom call during the scheduled office hours; or (4) come to my physical office in the Science building during scheduled office hours.

If you are unable to make the listed office hours, email me and we can set up a Zoom call.

**COVID-19 Provisions:**Face Coverings (September 2022):

As of September 2022, face coverings are recommended but not required. Please respect the choices of those around you who may wish to wear a mask or not.

Other Guidance

- a. Please monitor your own health each day. If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
- b. Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- c. Please maintain healthy practices outside the classroom.

**Academic Integrity:** You should be fully aware of your rights and responsibilities as a UWSP student. These are detailed in the UWSP Community Bill of Rights and Responsibilities found at [https://www.uwsp.edu/dos/Documents/UWS\\_14.docx](https://www.uwsp.edu/dos/Documents/UWS_14.docx)

Information regarding Section 504 of the Rehabilitation Act or the Americans with Disabilities Act can be found at the UWSP Disability and Assistive Technology Center site <https://www.uwsp.edu/datc>

**Religious Beliefs:** Students' sincerely held religious beliefs will be reasonably accommodated with respect to all examinations and other academic requirements. According to UWS 22.03, you must notify the instructor within the first three weeks of classes about specific dates which require accommodation. See the link below: [https://www.uwsp.edu/dos/Documents/UWS\\_CHAPTER\\_22.docx](https://www.uwsp.edu/dos/Documents/UWS_CHAPTER_22.docx)