

Professor: David McClendon (2046 ASC, phone x2574 (231-591-2574 off campus), hours M 3-4, TR 2-4, F 10-11 or by appointment, email: mcclend2@ferris.edu)

Meetings: M 2:00-2:50 in STR 126; W 2:00-3:50 PM in STR 130

Web: This course has a Blackboard page at FerrisConnect (accessed through MyFSU). Right now it doesn't contain anything, but it might later.

Prerequisites: C- or better in Math 414.

Text: *Actex P Study Manual* (2012 Edition) by Sam Broverman, ISBN 978-1-56698-894-0. This text contains 8 practice exams at the end, which I will not use in class - you can complete them on your own time for additional practice.

Required calculator: TI-30X (this is the only permitted calculator on Exam P, so it will be the only permitted calculator in this course).

Information on Actuarial Exam P:

<https://www.soa.org/education/exam-req/edu-exam-p-detail.aspx>

This page contains sample paper/pencil questions, online exam questions, and information on how to register for the exam.

Learning outcomes: Upon completion of Math 417, it is my hope and expectation that you will be able to pass Exam P. At the very least, I hope you will improve your chances of passing by:

1. learning to solve probability questions in the context of risk management and insurance (i.e. insurer's risk, deductibles, benefit limits, inflation, etc.)
2. memorizing relevant facts for the exam;
3. developing the ability to recall lists of concepts based on "key words" in exam questions;
4. developing problem-solving techniques and exam strategies; and
5. gaining extensive practice with sample Actuarial Exam P problems.

Grading policy: First, if you can provide documentation to me that you have passed the actuarial exam, you get an A.

Otherwise, your grade will consist of your performance on practice exams (50%), homework (15%) your attendance and participation in class activities (20%), completion of diaries (7.5%), and your crash course (7.5%). Grades will be curved at the end of the semester, but be advised: if your performance on practice exams does not indicate that you are likely to pass the actuarial exam, I am unlikely to give you an A or A-.

Practice actuarial exams: There will be five practice actuarial exams on the dates listed on the course calendar. These will be 2 hours long and consist of 20 multiple choice questions (the actual exam is 30 questions in 3 hours). I will grade these exams, looking for overall strong performance and/or a general trend of improvement from one exam to the next. After each exam, we will have a "post-mortem" session in class where we discuss some of the problems.

Homework: Homework will be individualized for each student based on their results on practice exams. I will assign problems from the text to you, depending on the areas of your practice exam where I think you could use the most practice.

Diaries: Each of you is to keep a “diary” which records your activities outside of class as far as studying for the actuarial exam. Every day (including weekends) should have an entry which describes what you did **that day** to help prepare for the exam. This may include reading, solving sample problems, reviewing 414 notes, taking a practice exam, etc. Your entry should include the amount of time you spend studying, and a **brief but specific** description of what you did. If you did nothing, say you did nothing (your diary grade will depend on you keeping the diary, not whether or not you study).

Example of a good diary entry: 1/8/15: I read p. 58-64 in Actex manual and solved problems 15-18 (1 hr 17 min total)

Example of a good diary entry: 1/8/15: Reread 414 lecture notes on joint MGFs; watched a video at khanacademy.org on joint MGFs; made a summary sheet of properties of joint MGFs (34 min)

Example of a bad diary entry: 1/8/15: I read and did some practice problems (about 1 hr)

The point of the diaries is to try to get you to hold yourself accountable for studying for the exams on your own outside of class. The Society of Actuaries recommends that you spend 300 hours preparing for this exam! We only meet for 50 hours in class this semester.

Crash courses: Each of you will have to give one “crash course” on a topic we covered in Math 414 (you will sign up for one during the first or second week of class). I will give the first two so that you have a model to follow, but generally speaking, you are to give a 45-50 minute presentation which, for your topic, lists all the key definitions and facts related to your topic and presents a variety of example problems. For full credit, you must make up at least two original example problems in your crash course. Prepare a handout for your classmates which can be used as a study guide on that topic - the handout should really be 1 or 2 pages at most.

Attendance policy: Attendance at every class meeting is expected; part of your grade comes from your presence in class and your participation in group work, activities, games, etc.

Note: This is the first time I have ever taught a course like this. I reserve the right to tweak what we are doing, and if you have any suggestions on things to incorporate into our class, let me know.

Students with disabilities who require reasonable accommodations to fully participate in course activities or meet course requirements should register with the Educational Counseling and Disability Services office (x3057, ecds@ferris.edu). While ECDS will send me a letter outlining the accommodations to make for you, I would appreciate it if you could contact me immediately for assistance with any necessary classroom accommodations.

Academic dishonesty: Issues with academic dishonesty are taken very seriously, will almost always result in an F for the class, and will be referred to the Office of Student Conduct.