

**MAT 452/5452**  
**Applied Mathematical Problem Solving**  
**Course Credit:** 3 semester hours

**PREREQUISITES:** Mat 222 and instructor's consent

**COURSE DESCRIPTION:** Various problem solving techniques will be employed. Applications of linear algebra, the calculus sequence, and other undergraduate mathematics courses provide a comprehensive review of these courses. This would be an excellent course for students considering a career in actuarial science.

**RATIONALE:** This course provides a thorough review of the material necessary for students considering a career in actuarial science and is designed to help prepare them to take the Society of Actuary's Exam P.

**LEARNING OBJECTIVES:** Students will work application problems in the areas of linear algebra, calculus, statistics, and other areas of mathematics to prepare them to successfully complete the first actuarial examination.

**METHODS OF INSTRUCTION:** Various instructional procedures are used including lecture, exams, questions and answers, class discussions, problem solving, etc.

**REQUIRED PRACTICES:** Students are expected to do daily homework assignments from problems assigned from textbook. They are expected to attend class, participate in problem solving and class discussions, ask questions, and keep a notebook of homework problems as well as class notes.

**INSTRUCTIONAL MATERIALS: Text:** Actex Study Manual for the Course 100 Examination of the Society of Actuaries, Broverman & Cox, Actex Publications

**ATTENDANCE:** Class attendance is extremely important in this course. (Note in the attendance policy of the university, students may receive a lowered grade because of excessive absences.) The responsibility for missed work rests entirely with the student.

**ACADEMIC INTEGRITY:** Students are expected to be honest. Dishonesty, such as cheating or plagiarism, will not be tolerated. Tests and other materials handed in by the student are assumed to be the student's own work. Refer to the following web site: <http://www.mc.edu/publications/policies/academic/219.wpd> .

**SPECIAL ACCOMODATIONS:** If a student needs special accommodations due to learning, physical, psychological, or other disabilities, please contact Dr. Amy Christian in the Counseling and Career Development Center.

Graduate students are called upon to work additional problems and make presentations in class.

**MISSISSIPPI COLLEGE ACADEMIC POLICIES:**

Students should consult the Mississippi College policy manual located at <http://www.mc.edu/resources/publications/policies/> for official information regarding:

- Class attendance - Policy 2.10
- Grading - Policy 2.15
- Cheating - Policy 2.19
- Counseling and Career Services - Policy 2.25
- Research - Policy 2.27
- Counseling and Testing Center - Policy 2.34

Students who may require accomodation due to a documented handicap should follow the procedures located at

<http://www.mc.edu/about/offices/counseling/disabilities/>

The Generic Grading Scale for this course is A = 90-100, B = 80-89, C = 70-79, D = 60-69. Individual instructors are free to choose a different grading scheme so students should consult their section's particular syllabus for the official grading scale to be utilized.

**Tutoring Hours:**

Hours and location for the departmental tutoring center are posted at <http://www.mc.edu/academics/academic-tutoring/> .