MA120A - FINITE MATHEMATICS
Rivier College - Spring 2002
MWF 10:00-10:50 am
ED303
3 credits

Instructor: Adele Miller
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Office Hours:
- Monday: 2:00 - 4:00
- Wednesday: 2:30 - 5:30
- Thursday: 10:00 – noon
and by appointment

Course Description:
Includes linear equations, systems of linear equations and inequalities, matrices, linear programming by simplex methods, applications of matrix algebra, set theory and probability.

Prerequisite:
High school algebra

Required Text:

Course Objectives:
To present students with algebraic, geometric and analytical tools that will assist them in their personal lives and careers
To help students develop good critical reasoning skills that will prepare them to function as good citizens
To assist students to understand and appreciate the usefulness of mathematics
To prepare students for future mathematics and mathematics related courses
To improve students' learning skills through writing
To enable students to differentiate between various mathematical tools so that they understand when to use each tool successfully
To assist students to gain confidence and comfort in using mathematics in their daily lives

Class Attendance:
I expect students to attend all classes and to be on time. I will take attendance each class meeting. In case of illness, work schedule conflicts, family commitments or other emergencies that will require missing class, please contact me. I expect students to notify me in advance of any anticipated absence whenever possible. If a student is absent more than three times, I will set up a meeting to discuss the advisability of remaining in the class.

Teaching Strategies:
Part of each class meeting will be lecture, but all students are encouraged to interact with classmates and me by asking questions and contributing ideas. Discussion about the class topic is encouraged. Some group work will also be done. There will be an assignment given at the end of each class meeting. A cover sheet will be provided to attach to assignments. Filled out, it will provide information about the assignment.
**Course Requirements**

Students are expected to spend a minimum of six hours each week studying math outside of class. Assignments in this course fall into two categories. There will be homework assignments which are expected to be completed by the next class meeting, and there will be two longer-term assignments.

**Homework assignments:**
- Most homework will be taken from the exercises in the text.
- It is recommended that the section of the text covering any assignment be read before attempting the exercises.
- Questions arising from homework should be indicated on the cover sheet.
- I will collect homework.
- Homework may not be handed in late. Absence is not an excuse for late homework.
- It is essential that homework assignments be done regularly so that performance in the course will not be compromised. The study of mathematics requires regular work, plenty of practice, neatness and precision. Postponed homework or sloppy work usually results in poor comprehension of the material and performance in the course.

**Longer-term assignments:**
- The longer-term assignments may be a written or oral report, but no student may give two oral reports.
- All assignments are to be presented/handed in at the beginning of class on their due dates. Absence is not an excuse for late work. If it is impossible to attend class on the day an assignment is due, have a friend, roommate or classmate deliver the work to class or my office.
- If there should be some extraordinary situation that will make it impossible to present/hand in any assignment in a timely way, the student must speak with me well in advance of the due date to make other arrangements.
- Any assignment presented/handed in late without prior arrangement with me will automatically lose a full letter grade for each class meeting that it is late and will not be accepted at all more than one week after the due date or after the assignment has been returned to the class.

**Assessment**

A short quiz will be given every Friday. After the first quiz, each quiz may have a question from a previous quiz. The ten best quiz grades will be used for the calculation of the final grade. There will be no make-up quizzes. There will be two in-term tests. One of the in-term tests will have a take-home component. Students' work on the take-home test is expected to be their own. If a student's work is below average, I will set up a meeting to discuss ways in which the student's work may be improved. The written assignments must be printed. A final exam will be given during the final exam week. The final exam may be taken only at the scheduled time. There can be sharing of calculators during quizzes and tests. All homework, quizzes and tests must be written neatly. Any student handing in illegible work will be required to rewrite the work at my convenience before it is graded. Attendance and class participation is measured in the following way:
Assessment Breakdown
Three or fewer absences and enthusiastic class participation: 85% - 100%
Four or five absences and occasional class participation: 70% - 85%
Six to eight absences and little class participation: 50% - 70%
More than eight absences and no class participation: 0%

Grading Policy
The final grade for the course will be based upon the quizzes, tests, written and oral assignments, attendance and class participation, homework and the final exam in the following way:
Quizzes 20%
In-term tests 20%
Written/oral assignments 20%
Attendance and class participation 10%
Homework 10%
Final examination 20%

Classroom Policies
A mathematics class is most successful when everyone works together. Several things help enable cooperation in the classroom. Be on time for class so that you do not disturb classmates or me. Please make sure that your cell phone is turned off before coming to class. Be sure to have your calculator with you so that you do not have to borrow someone else's. Try to avoid having to go to the restroom during class since class is only fifty minutes long. You are welcome to leave class when you have finished taking a quiz or test, but you are requested not to pack up your books while class is still in session.

Help/Tutoring
There are several sources of help which can be used separately or in conjunction with each other. Classmates should be the first source of help because they are working on the material at the same time you are. Peer work/study sessions might be set up on a regular basis or just prior to tests. There is a math/cs department tutor available for three hours each week. I am another source of help. Don't hesitate to contact me before or after class, during office house, by e-mail or by phone. Please use these resources as soon as and as often as you need to. They are all free. It is important to stay on top of the class work throughout the semester.

Calculators
A calculator is required for class work, quizzes, tests and the final examination.

References
Barnett, Ziegler and Byleen, *Finite Mathematics*
Farlow and Haggard, *Finite Mathematics and its Applications*
Goldstein, Schneider and Seigel, *Finite Mathematics and its Applications*
GrossJohnson and Mowry, *Finite Mathematics: Practical Applications*
Kertz, *Applied Finite Mathematics*
Zitarelli and Coughlin, *Finite Mathematics with Applications*

N.B. You are responsible for understanding and complying with the contents of this syllabus. If you have any questions about this syllabus please raise them at the beginning of the semester.