Course Syllabus: MTH 143---Finite Mathematics
Spring 2018, Sections: 7 and 8

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Department: Mathematics and Statistics
Phone: 936.468.1736
Office Hours: MW 10–11am, TR 1–3pm

Class meeting times and places:
Section 7 – MW 1–2:15pm, Math 210
Section 8 – MW 2:30–3:45pm, Math 210

Text and Materials:
The textbook is Mathematics with Applications in the Management, Natural, and Social Sciences, 11th Edition, by Lial, et. al. Chapters 1 through 7 will be covered in this course. You will need a calculator for this class. Graphing calculators are not allowed. Also, the calculator function of a cell phone will not be permitted during tests or in-class quizzes.

Course description: Mathematical functions and graphs, linear systems of equations, matrices, linear programming, mathematics of finance; applications.

Core Objectives (CO):
1. Critical Thinking [CO 1]: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills [CO 2]: to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. Empirical and Quantitative Skills [CO 3]: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions

Course calendar/outline:

- Functions [CO: 1,2,3]
  - Linear Functions
  - Quadratic Functions
    - Maxima and Minima
  - Logarithmic Functions
    - Solutions of logarithmic equations
  - Applications (e.g. break-even analysis, supply and demand)
- Matrices [CO: 1,2,3]
  - Operations of Matrices
  - Gauss-Jordan Elimination
  - Inverse of Square Matrices
  - Applications (e.g. systems of equations)
- Linear Programming [CO: 1,2,3]
  - Graphical Method
  - Simplex Method
    - Maximization
    - Duality and Minimization
    - Mixed Constraints (Optional)
- Mathematics of Finance[CO: 1,2,3]
  - Simple Interest
  - Compound Interest
  - Annuities
    - Ordinary Annuities; Future Value and Present Value
    - Annuities Due; Future Value and Present Value

Approximate time spent

- Functions 30%
- Matrices 20%
- Linear Programming 25%
- Mathematics of Finance 20%
Deferred Annuities; Present Value
Loans and Amortization

- Explicit instruction in Critical Thinking, Communication and Empirical and Quantitative Reasoning is in addition to implicit instruction, modeling and practice that occur daily in the discussion functions, matrices, linear programming and the mathematics of finance. This explicit instruction includes explanation of solving mathematical problems by thinking critically, communicating logically ordered solutions with complete and correct notation, and applying empirical or quantitative skills as appropriate to the problem.

General Education Core Curriculum
This course has been selected to be part of Stephen F. Austin State University’s core curriculum. The Texas Higher Education Coordinating Board has identified six objectives for all core courses: Critical Thinking Skills, Communication Skills, Empirical and Quantitative Skills, Teamwork, Personal Responsibility, and Social Responsibility. SFA is committed to the improvement of its general education core curriculum by regular assessment of student performance on these six objectives.

Course Requirements/Assignments:
- **Three in-class exams**—If a student must miss an exam due to an excused absence, the final exam will replace the missed exam grade. There are no make-up exams! **No cell phone or graphing calculators will be allowed on exams.** You will need to bring your own scientific calculator to exams. No additional time will be given on exams.
- **Homework**—We will assign exercises from each major topic in the course calendar/outline through the online homework system MyMathLab.
- **Weekly quizzes**—We will have regular in-class quizzes.
- **A comprehensive final exam**—The final exam grade can be used to replace a low or missing exam grade. The scheduled time for the final exam is as follows:
  1. Section 7: Wednesday, May 9, 1–3pm
  2. Section 8: Friday, May 11, 10:30am—12:30pm
- **Class attendance and participation**—Students are expected to attend all class meetings, arriving on time. If you are absent, you are responsible for determining what you missed and for being prepared for class when you return. Leaving class early without notifying the professor in advance will result in your being counted absent for the class session. Students that sleep in class, send or receive text messages, or conduct other online activities not directly related to class will be counted absent.
- **Preparing for class**—Students should be prepared to invest several hours per day outside of class reading the text, practicing examples, and working homework exercises. **Material to be discussed in class should be read before coming to class.** Check your university email or D2L regularly, as I may send reminders, assignments, or announcements.

Grading Policy:
Your final grade will be determined as follows:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Description</th>
<th>Grade Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>20%</td>
<td>Daily Average</td>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>60%</td>
<td>Tests (3 @ 20% each)</td>
<td>80% - 90%</td>
<td>B</td>
</tr>
<tr>
<td>20%</td>
<td>Comprehensive Final Exam</td>
<td>70% - 80%</td>
<td>C</td>
</tr>
<tr>
<td>100%</td>
<td>Final Course Grade</td>
<td>60% - 70%</td>
<td>D</td>
</tr>
</tbody>
</table>

20% of your grade will be determined by your daily average. This may include in-class activities, quizzes, homework assignments, etc. **In-class activities and quizzes cannot be made up.** **Homework assignments will not be accepted late.**
Course Calendar:
Tentative Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Holiday</td>
<td>Syllabus/1.6</td>
</tr>
<tr>
<td>Week 2</td>
<td>1.7</td>
<td>2.1</td>
</tr>
<tr>
<td>Week 3</td>
<td>2.2/2.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Week 4</td>
<td>3.1/3.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Week 5</td>
<td>Catch up/Review</td>
<td>Exam 1</td>
</tr>
<tr>
<td>Week 6</td>
<td>3.4</td>
<td>4.1/4.2</td>
</tr>
<tr>
<td>Week 7</td>
<td>4.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Week 8</td>
<td>Catch up/Review</td>
<td>Exam 2</td>
</tr>
<tr>
<td>Week 9</td>
<td>Spring Break</td>
<td></td>
</tr>
<tr>
<td>Week 10</td>
<td>6.1</td>
<td>6.4/6.5</td>
</tr>
<tr>
<td>Week 11</td>
<td>6.6/6.2</td>
<td>6.3</td>
</tr>
<tr>
<td>Week 12</td>
<td>7.1</td>
<td>7.2</td>
</tr>
<tr>
<td>Week 13</td>
<td>7.3</td>
<td>Catch up/Review</td>
</tr>
<tr>
<td>Week 14</td>
<td>Exam 3</td>
<td>7.4/7.5</td>
</tr>
<tr>
<td>Week 15</td>
<td>5.1/5.2</td>
<td>5.3/5.4</td>
</tr>
<tr>
<td>Week 16</td>
<td>Catch up/Review</td>
<td>Final Review</td>
</tr>
<tr>
<td>Week 17</td>
<td>Final Exam Week</td>
<td>Section 7: Wed, 9 May, 1–3pm  Section 8: Fr, 11 May, 10:30am–12:30pm</td>
</tr>
</tbody>
</table>

Attendance Policy:
Attendance is expected and recorded for all students. Attendance will not be formally factored into your course grade, however, missing in-class activities, quizzes, etc, could lower your daily average. Also, missing classes will significantly reduce the instruction you receive, and will therefore naturally decrease your semester grade.

You must make a commitment to attend every class, to arrive on time and to stay the entire time. Bring all necessary materials to each class, be attentive to the task at hand, take notes, and be prepared to participate in class discussions. You must make an additional commitment of doing work outside of class - one to two hours every day. Most importantly, ask for help when you need it.

Additional Help:
Free tutoring is available from the AARC. They offer peer tutoring and the Math Walk-in Table. The hours for the Walk-in Table are 1pm to 8pm Monday through Thursday as well as 4pm to 8pm on Sundays. Powerhours are available for select classes. Visit the AARC to see the schedule. Sign-ups for weekly tutoring/weekly appointments begin January 17/18. It is a first-come, first-serve basis so you will want to register early. If you need help signing up, the AARC staff (first floor of library, right-hand side) will be happy to assist. You can find more information on the AARC website, https://library.sfasu.edu/aarc/. Go to the link for Weekly Appointments Request and fill out the request form for a weekly tutor.

Academic Integrity (Policy A-9.1)
Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

The penalty for a student found cheating on any part of an assignment, quiz, or exam in this class will range from a grade of zero on the work to a grade of F in the course, and may result in additional, more severe disciplinary measures. A student who allows another to copy his work and the student copying the work are both guilty of cheating. Do your own work. Do not show your completed work to others. Do not allow others to copy your work.

Definition of Academic Dishonesty
Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification
or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at http://www.sfasu.edu/policies/academic_integrity.asp.

**Withheld Grades Semester Grades Policy (A-54)**

Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

**Students with Disabilities**

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices.

**Acceptable Student Behavior**

Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1 http://www.sfasu.edu/policies/student_conduct_code.asp). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.

**Student Learning Outcomes (SLO):** At the end of MTH 143, a student who has studied and learned the material should be able to:

1. Use linear functions and quadratic functions in business applications. [CO: 1,2,3]
2. Use matrices to solve systems of linear equations. [CO: 1,3]
3. Use matrices to solve linear programming problems. [CO: 1,3]
4. Use exponential functions and logarithmic functions and to solve equations using these functions. [CO: 1,2,3]
5. Solve simple interest and compound interest problems including annuities. [CO: 2,3]

*There are no specific program learning outcomes for this major addressed in this course. It is a general education core curriculum course and/or a service course.*
MyMathLab Sign In Instructions
What You Need to Enroll in your Instructor’s Online Course

- A Course ID: **richardson39134**
- A valid email address that you check regularly
  This address will be used to confirm your registration and for other communication about the course. Your instructor will also use this email address to communicate with you.
- A student access code (Or, you can pay with a credit card or a PayPal account.)
  This pre-paid code is printed inside the Student Access Code Card. The code card may be packaged with your new textbook or it may be available for purchase separately from your school’s bookstore.

To Register and Sign in to Your Instructor’s Course the First Time
- Go to [www.mymathlab.com](http://www.mymathlab.com)
- Click Student under Register.
- Enter your Course ID and click Continue.
- Verify the course information.
- If you have used MyMathLab in other courses you can enter your username and password, and click Sign In.
- If you don’t have an account, click Create
- Complete your account set up by entering your name, email address, a username and password, and any other required information. (WRITE THIS DOWN AND SAVE IT)
- Click Create Account. You now have a Pearson Account.
- Paying for your course access.
  - If you have already purchased an access code, click Access Code, enter the code and click Finish.
  - If using a credit card or PayPal, click the button for the access you want to purchase, provide payment account information and verify your order.
  - You also can use the “Temporary Trial Access” which will give you temporary access to the course until you are able to purchase the access code (usually lasts 14 days). Remember to write down the email address/username/password you use for the trial access or you may lose all work done during your trial.
- Print the Confirmation & Summary

You now have access to your instructor’s online course.
Click Go To Your Course, and then in the left panel, click the course name to start your work.