MTH 143 – Finite Mathematics
SPRING 2016

Name: Mrs. Danielle Johnson
Department: Mathematics and Statistics
Email: drjohnson@sfasu.edu
Office Hours: 11-12 MW and 11 am-1 pm TR
Other office hours available by appointment

Class meeting time and place: Section 001 – 9:00-9:50 MWF, Math 357
Section 002 –10:00-10:50 MWF, Math 357

Course description: MTH 143 covers mathematical functions and graphs, linear systems of equations, matrices, linear programming, mathematics of finance, and applications.

Student Learning Outcomes:
At the end of MTH 143, a student who has studied and learned the material should be able to:
- Use linear functions and quadratic functions in business applications.
- Use matrices to solve systems of linear equations.
- Use matrices to solve linear programming problems.
- Use exponential functions and logarithmic functions and to solve equations using these functions.
- Solve simple interest and compound interest problems including annuities.

Text and Materials:
- The textbook is Finite Mathematics with Applications in the Management, Natural, and Social Sciences, 11th Edition, by Lial, Hungerford, Holcomb, and Mullins. Chapters 1 through 7 will be covered in this course.
- Notes will be posted on d2l for each section that we cover. You are responsible for printing them and bringing them to class.
- You will need a calculator for this class. A scientific calculator will be sufficient. The calculator function of a cell phone will not be permitted during tests or quizzes. A graphing calculator is not permitted.

Program Learning Outcomes:
This is a general education core curriculum course and no specific program learning outcomes for this major are addressed in this course.

Course Requirements:
There will be three exams and a final exam. The final exam is comprehensive. Your final exam grade can be used to replace a low or missing exam grade. Therefore, there will be no make-up exams. If you miss an exam, your final exam grade will be substituted in place of the missing exam grade. No additional time will be given on exams.

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>20% Daily Average</td>
<td>90% - 100%</td>
<td>A</td>
</tr>
<tr>
<td>60% Tests (3 @ 20% each)</td>
<td>80% - 90%</td>
<td>B</td>
</tr>
<tr>
<td>20% Comprehensive Final Exam</td>
<td>70% - 80%</td>
<td>C</td>
</tr>
<tr>
<td>100% Final Course Grade</td>
<td>60% - 70%</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>0% - 60%</td>
<td>F</td>
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</tbody>
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Homework: Online homework (and quizzes) will be required using My Math Lab at www.mymathlab.com. When you create an account, use the following Course ID: Section 001: johnson19335
Section 002: johnson31654
Exams:
- I will ask that you put your cell phone on silent or off, not vibrate on the day of exams. Your cell phone needs to be in your bag.
- Your final exam is comprehensive and mandatory.
- **You need to bring a valid picture ID to every exam.** This is a department wide policy. You will not receive a grade for the exam unless you show a valid picture ID.
- In rare cases where it is impossible for an individual to take the exam at the scheduled time, I will work with you to make other arrangements. Exceptions for taking the exam out of sequence are the following:
  1. A medical excuse. Please provide proper documentation according to university rules.
  2. A University sponsored event such as an athletic tournament, a play, or a musical performance. Your coach or director must contact us in advance. Athletic practices and rehearsals do not fall into this category.
  3. A religious holiday. Please send a short email explaining the situation.
  4. Extreme hardship such as a family emergency. Please have the proper university office contact me.

The above are the only allowable excuses for taking the exam **before** the scheduled time. **Under no circumstances do I give late exams.** Please make sure that you fall into one of the above categories before you contact me.

Miscellaneous Information:
- No hats, headphones, or sunglasses are permitted during exams.
- You must show all of your work. No work means no credit.
- Please check your campus email regularly (at least daily) or forward your campus email to an email that you check regularly.
- **I will post class material** on “desire 2 learn”. Please check “desire 2 learn” regularly (at least daily).
- Be respectful of the students around you at all times.
- You must set your cell phone to a silent mode for class and never pull it out during class.

Attendance Policy:
Attendance is expected and recorded for all students. Attendance will not be formally factored into your course grade. Also, missing classes will significantly reduce the instruction you receive, and will therefore naturally decrease your semester grade.

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. Sign-ups for weekly tutoring begin soon. It is a first-come, first-serve basis so you may 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, [www.sfasu.edu/aarc](http://www.sfasu.edu/aarc). Go to the link for Weekly Appointments Request and fill out the request form for a weekly tutor.

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). 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.
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/

Academic Integrity (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.

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.
Tentative Outline for Math 143

Week 1
Section 1.1 The Real Numbers
Section 1.2 Polynomials
Section 1.3 Factoring

Week 2
Section 1.5 Exponents and Radicals
Section 1.6 First Degree Equations
Section 1.7 Quadratic Equations

Week 3
Section 2.1 Graphs
Section 2.2 Equations of Lines
Section 2.3 Linear Models

Week 4
Section 2.4 Linear Inequalities
Section 3.1 Functions
Exam 1 – Friday, Feb. 12

Week 5
Section 3.2 Graphs of Functions
Section 3.3 Applications of Linear Functions
Section 3.4 Quadratic Functions and Applications

Week 6
Section 3.5 Polynomial Functions
Section 3.6 Rational Functions
Section 4.1 Exponential Functions

Week 7
Section 4.2 Applications of Exponential Functions
Section 4.3 Logarithmic Functions
Section 4.4 Logarithmic and Exponential Equations

Week 8
Section 6.1 Systems of Two Linear Equations in Two Variables
Section 6.4 Basic Matrix Operations
Exam 2A – Friday, Mar. 11

Week 9
Section 6.5/6.6 Matrix Products and Inverses
Section 6.2 Larger Systems of Linear Equations

Week 10 Exam 2B – Wed. Mar. 30

Week 11
Section 6.2 Larger Systems of Linear Equations
Section 6.3 Applications of Systems of Linear Equations
Section 7.1 Graphing Linear Inequalities in Two Variables

Week 12
Section 7.2 Linear Programming: The Graphical Method
Section 7.3 Applications of Linear Programming

Week 13
Section 7.4 The Simplex Method: Maximization
Section 7.5 Maximization applications
Section 5.1 Simple Interest and Discount

Week 14 Exam 3 – Mon. Apr. 25
Section 5.2 Compound Interest
Section 5.3 Annuities, Future Value, and Sinking Funds
Section 5.4 Annuities, Present Value, and Amortization

Week 15 Review for final
Week 16 Final Exam – Section 001: Wed. May 11, 8:00 am – 10:00 am
Section 002: Mon. May 9, 10:30-12:30