Name: Mrs. Angela Dixon
Department: Mathematics and Statistics
Phone: 936.468.1827
Email: westal1@sfasu.edu
Office: Math Bldg Room 337
Office Hours:

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
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<tbody>
<tr>
<td>None</td>
<td>8:30-9:00</td>
<td>12:15-2:15</td>
<td>None</td>
<td>8:30-9:00</td>
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Class meeting time and place:  
Section 5, Math Bldg 202, TTh 9:30-10:45am  
Section 6, Math Bldg 202, TTh 11:00-12:15

Required Materials

Book: The required textbook for this course is *Modeling, Functions, and Graphs: Algebra for College Students* by Katherine Yoshiwara. The textbook is free and available online at [https://cdn.rawgit.com/byoshiwara/mfg/master/MFG.html](https://cdn.rawgit.com/byoshiwara/mfg/master/MFG.html).

Online: The vast majority of your homework will be submitted through WeBWorK, the MTH 138 online homework system ([https://webwork.sfasu.edu/webwork2/MTH138-Fall17/](https://webwork.sfasu.edu/webwork2/MTH138-Fall17/)). WeBWorK assignments will be due on Wednesday evenings, but there may be exceptions. Your daily average is based on your grades from WeBWorK homework and any other daily quizzes or homework that are assigned for a grade. You will learn more about getting a WeBWorK account the first day of class.

In addition to weekly WeBWorK assignments, you will also have several projects. The projects are really just extended homework assignments, so there is no need to panic.

Calculators:

You will need a calculator for MTH 138. You may use your calculator on all homework assignments and exams unless calculator use is specifically prohibited. However, you should not rely on computers and calculators to such an extent that they keep you from developing your own skills. Technology should be used as an aid, but without a good understanding of the underlying mathematical concepts, the calculator will quite happily mislead you without your even knowing it. In general, technology is a good thing, but as with everything, sometimes too much of a good thing can lead to problems. **You may not use your cellphone or your iPod as a calculator.**

We will also make extensive use of Desmos ([https://www.desmos.com](https://www.desmos.com)). Desmos is free web-based graphing calculator. You will learn more about Desmos in class.

**Calculators that include a solver such as the TI-89 or TI-Nspire and calculators that have a QWERTY keyboard will not be allowed on exams.**

**Recommendations for a basic scientific calculator:** TI-30XS Multiview, TI-30X IIS, or TI-34 Multiview
Course Description
Mathematical models; solving equations; creating, interpreting, and graphing functions. Particular focus is given to polynomial, exponential, and logarithmic functions. Prerequisites: two years of high school algebra and one year of high school geometry and TSI complete/exempt status in mathematics.

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 Requirements/Assignments: Overview
The core objective(s) satisfied by each assignment type are indicated in brackets
- Three in-class exams [CO 1, 2, 3]
- Online homework/quiz assignments/projects [CO 1, 2, 3]
- Comprehensive final exam [CO 1, 2, 3]

Student Learning Outcomes (SLO)
At the end of MTH 138, a student who has studied and learned the material should be able to:
1. Employ independence of thought and innovation in order to obtain solutions to typical algebraic problems. [CO 1]
2. Create, manipulate, analyze and solve algebraic equations and expressions, especially linear, quadratic, polynomial, rational, exponential and logarithmic expressions. [CO 1,3]
3. Connect graphical properties with those of associated functions or equations, and use these connections to communicate graphical or physical properties in algebraic language. [CO 2,3]
4. Read, interpret, and communicate written mathematics, both in prose and in its graphical or visual forms. [CO 2]
5. Use functions to model and solve real-world problems. [CO 1,3]

Final Grade Components
Grading Scale
Test Dates
20% Homework/Quizzes/Projects 90% - 100% A #1: Thursday, Sept. 21
60% Tests (3 @ 20% each) 80% - 90% B #2: Thursday, Oct. 19
20% Comprehensive Final Exam 70% - 80% C #3: Tuesday, Nov. 16
100% Final Course Grade 60% - 70% D Final: Section 5: Tues., Dec. 12, 8-10am
0% - 60% F Section 6: Thurs., Dec 14, 10:30-12:30
## Tentative Course Schedule, TR MTH 138, Fall 2017

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Syllabus/1.1 Linear Models</td>
</tr>
<tr>
<td>Week 2</td>
<td>1.3 Graphs of Functions/1.4 Slope and Rate of change</td>
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<tr>
<td>Week 3</td>
<td>1.6 Linear Regression/2.1 Nonlinear Models</td>
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<tr>
<td>Week 4</td>
<td>2.4 Functions as Math Models/Review</td>
</tr>
<tr>
<td>Week 5</td>
<td>2.5 Absolute Value Functions/2.6 Domain and Range</td>
</tr>
<tr>
<td>Week 6</td>
<td>3.2 Integer Exponents/3.3 Roots and Radicals</td>
</tr>
<tr>
<td>Week 7</td>
<td>3.5 Joint Variation/4.1 Exponential Growth and Decay</td>
</tr>
<tr>
<td>Week 8</td>
<td>Review</td>
</tr>
<tr>
<td>Week 9</td>
<td>4.4 Properties of Log/4.5 Exponential Models</td>
</tr>
<tr>
<td>Week 10</td>
<td>5.2 Logarithmic Functions/5.3 Natural Base</td>
</tr>
<tr>
<td>Week 11</td>
<td>6.1 Factors and x-intercepts/6.2 Solving Quadratic Equations</td>
</tr>
<tr>
<td>Week 12</td>
<td>Review</td>
</tr>
<tr>
<td>Week 13</td>
<td>Holiday</td>
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<tr>
<td>Week 14</td>
<td>7.1 Polynomial Functions/7.2 Graphing Polynomial Functions</td>
</tr>
<tr>
<td>Week 15</td>
<td>8.1 Systems of Equations with two variables/8.2 System of Equations with three variables</td>
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<tr>
<td>Finals Week</td>
<td>Final Exam</td>
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### Supplemental Instruction (SI) and Tutoring Support

- SI session times are being finalized, and will be announced in the first week of class.
- A limited number of ongoing weekly appointments are available. Interested students should sign-up as soon as possible. Registration starts the first week of class; visit [http://library.sfasu.edu/aarc](http://library.sfasu.edu/aarc) for details.
- The AARC operates walk-in tables (no appointment necessary) throughout the week. Hours of operation for math walk-in tables: Monday through Thursday 1-8pm and Sunday 4-8pm

### General Policies and Information

- Online homework/quizzes will be given using WeBWork ([https://webwork.sfasu.edu/webwork2/MTH138-Fall17/](https://webwork.sfasu.edu/webwork2/MTH138-Fall17/)).
- WeBWorK assignments will be due on Wednesday evenings, but there may be exceptions. You will learn more about getting a WeBWorK account the first day of class.
- WeBWorK assignments consist of homework and quizzes (covering 2 or more sections). **It is your responsibility that these assignments get done!**
- Projects will be assigned from our textbook.
- At the beginning of class, you may ask questions on material covered the previous class period.
- You earn your grade by communicating your understanding of the material through the homework and tests. Clearly communicating mathematics will be essential in this course.
- I will send e-mails to the entire class during the semester. Check your SFA e-mail account frequently.
- To contact me, you may call my office, drop by my office, or e-mail me. I will do my best to reply quickly.
- Students are expected to respect the learning environment of their fellow students. Towards this end, use of personal electronic devices is forbidden during class.
**Testing, Grading, and Make-up Policies**
- If you miss a test and have a valid excuse, I will replace your missed test grade by your final exam grade. However, your final may only replace one other score.
- **Attendance Policy:** Over 2 unexcused absences may result in a grade reduction. Students leaving class early without prior notification will be counted absent. Students who are physically present, but who are not participating in class (sleeping, using personal electronics, etc) will be counted absent. Students who miss class for any reason are responsible for the material missed.
- You must bring and display either your SFASU Student ID or a valid driver’s license before you will be permitted to take each test and the final exam. I must be able to recognize you from the photo on the ID.
- Since you have a full semester to arrange any travel plans, they are not an excuse for missing the final.
- Students are expected to attend every class meeting, arriving on time.
- If your final exam is higher than a regular exam grade, it will count twice (as your final exam score and replace your lowest exam grade)
- You may get help on work that is assigned to be done outside of class, unless otherwise instructed, but I expect any work that you turn in to reflect your understanding of the material. On in-class graded work, I expect you to only use your brains, pencil, paper, and, sometimes, a calculator.

**Tips for a Successful math class**
- Measure success as *understanding* and being able to do new problems, not as having completed the assignment.
- Try to understand definitions and solving approaches. See if you can find examples that work and examples that don’t.
- Take the time to read the book and **review your notes** before and after class.
- Practice homework problems until you can do it without referring to examples or help from your notes.
- Practice explaining big ideas and problem solving procedures in your own words, using complete sentences.
- Have someone check your work *after you have finished it* to help eliminate mistakes that you do not know you are making.
- Treat mistakes as a learning experience.
- Realize that math is hard. Some parts are harder for some people than others. Ph.D. mathematicians frequently find it hard to learn new things sometimes and make mistakes on things we already know. We have just learned to go back and refresh the basics, and keep working, even it takes hours, days, weeks, or years.
- Some people take longer to understand things than others. Evaluate how you study and seek to study smarter, not necessarily longer. If you are still stuck, get some help. The AARC and I are here for you!

**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. Assessment of these objectives at SFA will be based on student work from all core curriculum courses. This student work will be collected in D2L through LiveText, the assessment management system selected by SFA to collect student work for core assessment. LiveText accounts will be provided to all students enrolled in core courses through the university technology fee. You will be required to register your LiveText account, and you will be notified how to register your account through your SFA e-mail account. If you forward your SFA e-mail to another account and do not receive an e-mail concerning LiveText registration, please be sure to check your junk mail folder and your spam filter for these e-mails. If you have questions about LiveText call Ext. 1267 or e-mail SFALiveText@sfasu.edu.
University Policies

- **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](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](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](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.