Syllabus: MTH 138 College Algebra

Fall 2018, Sections 10, 11, 29, & 701

Instructor: Dr. Keith Hubbard

Class Times & Place:
- Sec 29 MWF 8-8:50, Math 206
- Sec 10 MWF 10-10:50, Math 206
- Sec 11 MWF 11-11:50, Math 206
- Sec 701 MWF 8-8:50, online

Office Hours: Monday 9:00-9:50, Tuesday 1:30-3:30, Wednesday 9:00-9:50, Thursday 1:30-3:30, Friday 9:00-9:50

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Office Phone: 936.468.1533
Office: Math 336

Materials
- The online 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://yoshiwarabooks.org/mfg/.
- Online homework will be required using WebWork at webwork.sfasu.edu. Additional information about Webwork will be provided in class.
- A scientific calculator is required. Calculators that include a solver such as the TI-89 or TI-Nspire and calculators that have a QWERTY keyboard are not allowed. The calculator function of a cell phone or tablet will not be permitted during tests or quizzes.

Grade Components

<table>
<thead>
<tr>
<th>Grade Components</th>
<th>Grading Scale</th>
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</thead>
<tbody>
<tr>
<td>25% Exam 1 [CO: 1,2,3]</td>
<td>90% - 100% A</td>
</tr>
<tr>
<td>25% Exam 2 [CO: 1,2,3]</td>
<td>80% - 90% B</td>
</tr>
<tr>
<td>25% Exam 3 [CO: 1,2,3]</td>
<td>70% - 80% C</td>
</tr>
<tr>
<td>25% Final Exam [CO: 1,2,3]</td>
<td>60% - 70% D</td>
</tr>
</tbody>
</table>

General Policies and Information
- Online homework will be required using https://webwork.sfasu.edu. Initially your user name and your password are both your SFA username. New homework assignments open when new material is covered. Check WebWork regularly to keep on top of the due dates. This is your responsibility!
- 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 assignments 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. My website lists daily assignments and other useful information.
- To contact me, you may call my office, drop by my office, or e-mail me. I will do my best to reply quickly.
- The AARC operates walk-in tables (no appointment necessary) throughout the week. Hours of operation are typically 1-8pm Monday through Thursday, and 4-8pm Sunday.
- Students are expected to respect the learning environment of their fellow students. Towards this end, use of mobile phones, mp3 players, PDAs, etc., is forbidden during class.

Tips for a Successful math class
- Measure success as understanding and being able to do problems, not just 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 textbook 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. Successful people learn 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 – that does not mean each person is not capable of success.
Testing, Grading, and Make-up Policies

- This is an entry-level college mathematics course, so grading of exams will look a bit different. I am attempting to make clear the habits that lead to success in mathematics and redesign the grading to make explicit how important those items are. Each Exam will be graded as follows:
  - 10% homework problems leading up to the exam
  - 10% quizzes leading up to the exam
  - 10% creating a study plan for the exam, then following it
  - 10% taking the practice exam/practice problems
  - 5% identifying your mistakes on a practice exam
  - 5% correcting your mistakes on your practice exam
  - 50% the score you actually make on the in-class exam

  This grading can help you or hurt you. If you take care of business in preparation for an exam, you can already have half the points before you even sit for the exam. However, if you do nothing to prepare, it is possible to have failed the exam before you have even started taking it. (That’s how all math exams are – you really determine most of your success before you even sit down to take it. I just want to make that process explicit, and to help you build good habits.)

- Attendance Policy: Over 3 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) may be counted absent. Students who miss class for any reason are responsible for the material missed.

- 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 you have 3 or fewer absences and score a 70% or better on the final, that score may replace your lowest test grade. 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.

- 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.

Tentative Course Calendar

<table>
<thead>
<tr>
<th>Week</th>
<th>Monday</th>
<th>Wednesday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Syllabus and Webwork</td>
<td>1.1 Linear Models</td>
<td>1.2 Functions</td>
</tr>
<tr>
<td>2</td>
<td>1.3 Graphs of Functions</td>
<td>1.4 Slope and Rate of Change</td>
<td>1.5 Linear Functions</td>
</tr>
<tr>
<td>3</td>
<td>2.1 Nonlinear Models</td>
<td>2.2 Some Basic Functions</td>
<td>2.3 Transformation of Graphs</td>
</tr>
<tr>
<td>4</td>
<td>2.4 Functions as Math Models</td>
<td>Review</td>
<td>Exam 1 – September 21</td>
</tr>
<tr>
<td>5</td>
<td>2.5 The Absolute Value Function</td>
<td>2.6 Domain and Range</td>
<td>3.1 Variation</td>
</tr>
<tr>
<td>6</td>
<td>3.2 Integer Exponents</td>
<td>3.3 Roots and Radicals</td>
<td>3.4 Rational Exponents</td>
</tr>
<tr>
<td>7</td>
<td>4.1 Exponential Growth &amp; Decay</td>
<td>4.2 Exponential Functions</td>
<td>4.3 Logarithms</td>
</tr>
<tr>
<td>8</td>
<td>4.4 Properties of Logarithms</td>
<td>Review</td>
<td>Exam 2 – October 19</td>
</tr>
<tr>
<td>9</td>
<td>4.5 Exponential Models</td>
<td>5.1 Inverse Functions</td>
<td>5.2 Logarithmic Functions</td>
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<tr>
<td>10</td>
<td>5.3 The Natural Base</td>
<td>5.4 Logarithmic Scales</td>
<td>6.1 Factors and x-intercepts</td>
</tr>
<tr>
<td>11</td>
<td>6.2 Solving Quadratic Equations</td>
<td>6.3 Graphing Parabolas</td>
<td>6.4 Problem Solving</td>
</tr>
<tr>
<td>12</td>
<td>7.1 Polynomial Functions</td>
<td>Review</td>
<td>Exam 3 – November 16</td>
</tr>
<tr>
<td>13</td>
<td>Thanksgiving Break</td>
<td></td>
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<tr>
<td>14</td>
<td>7.2 Graphing Polynomial Functions</td>
<td>7.4 Graphing Rational Functions</td>
<td>7.5 Equations with Algebraic Fractions</td>
</tr>
<tr>
<td>15</td>
<td>8.1 Systems of Linear Equations in Two Variables</td>
<td>8.2 Systems of Linear Equations in Three Variables</td>
<td>Review</td>
</tr>
<tr>
<td>16</td>
<td>Final Exam: Section 10 - Dec. 11 – 10:30-12:30, Section 29 - Dec. 12 – 8:00-10:00, Section 11 - Dec. 10 – 10:30-12:30, Section 701 - exam dates vary</td>
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Per SFA policy 5.4, this schedule reflects that there is (1) an amount of student work per credit hour that reasonably approximates not less than one hour of class or direct faculty instruction and two hours of out-of-class student work per week for fifteen weeks over a long semester, or the equivalent amount of work over a different amount of time; or (2) at least an equivalent amount of work as outlined in item 1 above for other academic activities as established by the institution including laboratory work, internships, practica, studio work, and other academic work leading to the award of credit hours.
**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

**General Education Core Curriculum**
The Texas Higher Education Coordinating Board has identified six core learning objectives: 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.

By enrolling in MTH 138 you are also enrolling in a Core Curriculum Course that fulfills the Empirical and Qualitative Skills requirement. You will see this course on your D2L list.

At one point during the semester, you will receive an assignment that fulfills both the requirements of this course and the needs of Stephen F. Austin State University’s Core Curriculum Assessment Plan with the Texas Higher Education Coordinating Board. When you complete this one assignment, you need to upload the assignment to both your standard course dropbox determined by your Instructor and the “Core Curriculum” dropbox. The Core Curriculum dropbox will be identified by the Objective for which work is being collected. (Examples: Critical Thinking, Teamwork, Social Responsibility Empirical & Quantitative Skills, Personal Responsibility, Communication Skills-Written, Communication Skills-Written & Visual, and Communication Skills-Oral & Visual.) Please note that this only applies to the approved assignment. All other assignments should be submitted according to regular class operations.

When you complete the assignment mentioned above, you will upload the assignment to both the MTH 138 dropbox and the Empirical and Qualitative Skills dropbox.

Please note that this only applies to the specific assignment listed in the matrix below. All other assignments should be submitted according to regular class operations.

If you have any questions, please see your instructor, or contact the at Office of Student Learning and Institutional Assessment at (936) 468-1130.

The chart below indicates the core objectives addressed by this course, the assignment(s) that will be used to assess the objectives in this course and uploaded to the D2L Empirical and Qualitative Skills dropbox this semester, and the date the assignment(s) should be uploaded to the D2L Empirical and Qualitative Skills dropbox. Not every assignment will be submitted for core assessment every semester. Your instructor will notify you which assignment(s) must be submitted for assessment in the D2L Empirical and Qualitative Skills dropbox.

<table>
<thead>
<tr>
<th>Core Objective</th>
<th>Definition</th>
<th>Course Assignment Title</th>
<th>Date Due in D2L</th>
</tr>
</thead>
<tbody>
<tr>
<td>Critical Thinking Skills</td>
<td>To include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Communication Skills</td>
<td>To include effective development, interpretation and expression of ideas through written, oral, and visual communication.</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Empirical and Quantitative Skills</td>
<td>To include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

*No assignment will be collected for this course during this semester.*
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.