

# Math 1410, Section 02: Elementary Functions Spring 2013 Syllabus

## 1 Course Information

- Location and Time: MWF 12:30pm–1:50pm, 218 Lee Drain Building
- Professor: Dr. Martin Malandro
- Department: Mathematics and Statistics
- Office: 409 Lee Drain Building
- E-mail (preferred method of contact): malandro@shsu.edu
- Phone number: (936) 294–1580
- Office Hours: MW 4:30–5:00pm, Th 3:00–5:00pm, and by appointment.
- Required Materials:
  - Textbook: Precalculus, a unit circle approach. Ratti and McWaters, 1st ed., 2009.
  - Calculator: TI-83 or better recommended. Calculators with computer algebra systems will not be allowed on exams. If you have questions about the legality of your calculator, please see me.
  - Online homework system (MyMathLab): course ID: malandro43511

**Catalog Course Description:** Prerequisite: THEA score of 270 or its equivalent or departmental approval. This course is for students intending to take calculus (MATH 1420). Credit 4. Elementary functions and their applications, including topics from algebra, trigonometry, and analytic geometry, are used to assist in the algebraic and graphical description of the elementary functions: polynomial, rational, exponential, logarithmic and trigonometric functions.

**Course Objectives/Learning Outcomes:** This course has *one* objective: To prepare you for success in calculus! At the end of this course, a successful student will be able to:

- Use function notation and recognize the notion of function as a fundamental mathematical concept,
- Work with function composition,
- Write down formulas for reflections, shifts, and stretches of functions,
- Identify one-to-one and onto functions and be able to compute function inverses,
- Recognize the shapes of the graphs of low-degree polynomials, rational functions, trig functions, exponentials, and logs,
- Solve equations involving elementary functions,
- Work with trigonometric functions and understand the unit circle interpretation of sin and cos, and
- Work with inverse trigonometric functions.

Other topics will also be covered.

**Prerequisite note:** The prerequisite for this class is a THEA score of 270+ or equivalent. This means that I expect you to know how to find the equation of a line, solve a quadratic equation, etc. already. If you need help with these things please see me in my office hours as soon as possible.

## 2 Grading Policy

Your grade in the course will be calculated using the following weights:

Online homework	10%
Book work presentations	10%
Exam 1	20%
Exam 2	20%
Exam 3	20%
Final Exam	20%

Grading Scale:

A	90% or better final average
B	80–89% final average
C	70–79% final average
D	60–69% final average
F	59% or lower final average

**Homework:** There are two types of homework in this class: Online homework (using MyMathLab) and book work. **The online homework is not optional. You will not be permitted to take an exam if your online homework average is below 70% on the date of the exam.**

On average, you will have 3 online homework assignments due each week. These are preliminary assignments to get you ready for your book work. It is up to you to keep up to date on your online assignments on MyMathLab.

I will also assign problems from the book (book work) most class days. You will present your book work during “homework sessions,” which we will have in class about once a week. Here is how these will go. I will choose problems from the book work and call on students randomly to put solutions to those problems on the board. A proper solution is an unbroken chain of logic leading to the answer, not just the answer itself. You must show your work! Your book work presentation score will be determined entirely by your participation when I call on you during these sessions. Obviously, you can only participate and learn if you are present. Attendance is important! I will grade all presentations on a 4-point scale.

Bring your completed book work with you to class every day. You will probably find it helpful to bring your book as well. Unless I announce otherwise, when I assign book work I will expect you to have it completed and ready to present the following class session.

**Homework make-up policy:** I will occasionally briefly re-open some recent online homework sets for everyone in the class, usually just before a test. These times will be the only times you have to make up a missed online homework set. No online homework sets will be dropped.

No make-ups for missed book work presentations will be available. Therefore, in calculating your book work average, I will drop your (1) lowest book work score.

**Exams:** Many exam problems will be similar to homework problems or examples worked in class. **Every exam in this class will be cumulative, and you will only be permitted to take an exam if your online homework average is at least 70% on the date of the exam.**

If you arrive late to an exam, you may still take the exam in the remaining time as long as nobody has finished the exam yet.

No exam grades will be dropped, and there will be no do-overs. However, if it helps your grade in the course, I will replace your lowest exam score with the *average* of your score on that exam and your score on the cumulative final exam.

**Exam make-up policy:** If you miss an exam, you will be expected to show appropriate cause in writing. If you must miss an exam, I expect you to contact me beforehand. If that is impossible, then you must

contact me no later than 24 hours after the exam. If you miss an exam and have not contacted me by this time, you forfeit your right to a make-up.

**Academic Honesty Policy:** You may work together on homework assignments and you may consult whatever sources you deem necessary while doing so. The purpose of the homework is to LEARN—specifically, to better your understanding of the underlying concepts and to gain proficiency in using them to solve problems.

Exams, on the other hand, exist for you to DEMONSTRATE what you have learned. They are individual endeavors, where no help is to be given or received. Cheating on an exam includes, but is not limited to, sharing answers or using any form of cheat sheet (note: notes programmed into a calculator count as a cheat sheet). If I catch you cheating on an exam, I will forbid you from attending any further class meetings and assign you a grade of F in the course. You may also be referred to the dean on academic dishonesty charges.

**Extra Credit Policy:** Extra credit will be available in the form of one bonus question per exam. No other extra credit will be available.

**Grade Dispute Policy:** All grade issues need to be brought to my attention within one week of having your grade returned/posted.

**Final Exam Schedule:** Wed May 8, 2pm–4pm

### 3 Classroom Policies

**Attendance Policy:** I expect you to attend every class. If you miss a class, then I expect you to get notes from a classmate. I expect you to arrive to class on time.

**Classroom Rules of Conduct:** Students must refrain from behavior in class that disrupts the learning process. Students are prohibited from using tobacco products in class, making offensive remarks, reading newspapers, sleeping, talking at inappropriate times or about inappropriate things, wearing inappropriate clothing, using cellphones, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy.

Math-related questions and math-related discussion in the classroom are encouraged. However, chatter is disruptive to the learning process and will not be tolerated under any circumstances. Furthermore, any variation of the question “do we need to know this for the test?” is banned.

**Use of Telephones and Text Messengers in Class:** Generally speaking, you may not use cell phones, computers, or other devices capable of communication in class. The one exception is that during lecture periods, you may keep your cell phone on vibrate so that you can receive text messages in case of an emergency. You may not, however, be distracted or distracting to others in checking your text messages in class, and you may not send text messages in class. All messengers must be put away for exams. SHSU Academic Policy Statement 100728 states that *even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty.* I have no choice in this matter, so if your phone goes off during a test, please don’t answer it or even pull it out to look at it.

### 4 Tentative Schedule

Algebra review, Sec 1.3–1.7, 2.1–2.4	Jan 16–Feb 10
Exam 1	Feb 11
Sec 2.5–3.5	Feb 12–Mar 7
Exam 2	Mar 8 (the Friday just before Spring Break)
Sec 6.1, 4.1–4.6, 5.1–5.3	Mar 18–Apr 11
Exam 3	Apr 12
Sec 5.4–5.5, 6.2–6.7	Apr 13–May 3
Final Exam	Wed May 8, 2pm–4pm

The date/time of the final exam is set by official SHSU policy. All other dates in this list are tentative and subject to change.

## **5 Additional Information**

All information on this syllabus is subject to change. All changes will be announced in class. Further university policies regarding academic dishonesty, student absences on religious holy days, disabilities, and visitors in the classroom which apply to this course may be found at <http://www.shsu.edu/syllabus/>. If there is a conflict between information on this syllabus and official university policy, university policy takes precedence.