

# Math 1410, Section 05: Elementary Functions

## Fall 2015 Syllabus

### 1 Course Information

- Location and Time: MWF 11:00am–12:20pm, 402 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: Thursday 11:30am–2:30pm, and by appointment.
- Required Materials:
  - Textbook: Precalculus, 3rd edition, by Stitz and Zeager. A free copy may be found on Blackboard.
  - 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.

**Catalog Course Description:** 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 following elementary functions: polynomial, rational, exponential, logarithmic, and trigonometric functions. Credit 4. **Prerequisites: Passing score on the MATH TSI Assessment or equivalent. This course is for students intending to take calculus (MATH 1420).**

**Course Objectives/Learning Outcomes:** A successful student will attain mastery of the following topics. Other topics will also be covered.

- 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 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.

## 2 Grading Policy

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

Homework	15%
Quizzes	15%
Exams 1–3 (best two)	20% each
Exams 1–3 (worst)	10%
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:** I will assign homework on a near-daily basis, and we will hold “homework sessions” in class about once a week. Here is how they will go. I will choose problems from the homework 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. Show your work! Your homework score will be determined by your participation when I call on you for these presentations. 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 homework 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 homework I will expect you to have it completed and ready to present the following class session.

Any graded in-class activities will be recorded as homework grades.

**Quizzes:** There will be weekly quizzes, which you must complete on your own. Most quiz problems will be similar to problems worked in class or in the homework.

**Homework and quiz make-up policy:** No make-ups for missed homework presentations or quizzes will be available. Therefore, in calculating your averages, I will drop your (1) lowest homework score and (1) lowest quiz score.

**Exams:** Many exam problems will be similar to homework problems or examples worked in class. The final exam will be cumulative.

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.

Quizzes and 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 a quiz or 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 a quiz or 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 Dec 9, noon–2pm

### 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 or smoking 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. 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

Functions, transformations, polynomials	Aug 26–Sep 17
Exam 1	Friday Sep 18
Polynomials, exponentials, logarithms	Sep 19–Oct 15
Exam 2	Friday Oct 16
Trig	Oct 17–Nov 12
Exam 3	Fri Nov 13
More trig, additional topics	Nov 14–Dec 4
Final Exam	Wed Dec 9, noon–2pm

The date/time of the final exam is set by official SHSU policy. Although I do not expect any other exam dates to change, 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.