

MATH 1332 Online

Fall 2017

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Course Description: This course is designed to meet the objectives of Component Area 2 of the core curriculum for non-business and non-science related majors. Topics may include sets, counting principles, probability, logic, mathematics of finance, geometry, number theory and problem solving techniques. Applications are emphasized. Daily lectures will be given, accompanied by in-class worksheets; daily homework will be assigned; and four exams will be administered throughout the summer session. 3 Credits.

Prerequisite: Two years of high school algebra and high school geometry.

Learning Outcomes: The course learning outcomes (aka objectives) describe what abilities and skills a successful student is expected to develop and demonstrate in this course. While often related, these are separate from the course content (the specific topics we'll be covering)

1. Describe how mathematics can contribute to the solution of problems in the natural world or human society.
2. Employ critical thinking skills, drawing upon prior knowledge when possible, to analyze and explore new and unfamiliar problems
3. Form and communicate generalizations of patterns discovered through individual or group investigations.
4. Solve problems using algorithms or formulas
5. Model and solve problems using graphical methods
6. Communicate methods of solutions and solutions to problems for the clarity of the receiver.
7. Analyze and interpret data, including calculating numerical summaries and creating graphical representations, to propose possible implications
8. Identify multicultural perspectives of, or multicultural contributions to, at least one mathematical topic studied.

Required Materials: We will be using the following **text**, which is freely available on the website <http://www.opentextbookstore.com/mathinsociety/> which has YouTube video lectures to accompany the lectures through the text. The videos are available via the website. We will also be making use of Blackboard and Proctor Free for class announcements and exams. To use Proctor Free, you will need to make sure you have a **webcam**, which is typically included on most laptops. You are also welcome to use campus computer labs. Finally, you will be needing a **scientific calculator**. I recommend a TI-83 Plus or TI-84. During the exams, you will not be allowed to use your cell phone or any other device as a substitute for a calculator.

In addition, we will be using a freely available software to **work through homework** on the website <https://www.myopenmath.com>

- To begin, you must "Register as a New Student" on the website. Under the New User Signup, you will enter a **username, password, first name, last name, e-mail address**. You will be asked to agree to the Terms of Use by checking the box.
- Then you must enter two pieces of information:
- COURSE ID: **26092**
- Enter Enrollment key: **Garcia-1332-Fall-2017** *Note there are some capitalized letters and punctuation marks.*

Technical Requirements: To be successful in this course, you will need some technical skills. Most important is access to a an updated **computer** with a **webcam, Firefox ESR or Internet Explorer 11+**, a reliable **high-speed internet connection**, and the ability to operate that computer and a web browser. These requirements are essential to be able to complete the **course exams which you will take on ProctorFree via the Blackboard website**. Links to download the specific internet browsers compatible with ProctorFree can be found at:

<https://support.proctorfree.com/portal/kb/articles/which-internet-browser-should-i-use>

Textbook: I got tired of students having to pay over \$200 for a book. So instead of using a traditional textbook, a freely available book will be used. The book will be available in PDF format. If you prefer reading from print, you are welcome to print out the PDFs, or order a bound printed copy directly from the book's website (usually cheaper than printing the entire book yourself).

If you wish to read beyond the materials I provide, you can find additional material online, or in more traditional textbooks available in the library.

Format of the Course: **This course is not self-paced.** Roughly each week, there will be a specific set of material to learn, assignments on that material and an Exam administered through Blackboard (unless otherwise specified). There will be fixed due-dates for those assignments and exams. However, the course is **asynchronous**, which means that you can log into the classroom any times during the week that are convenient for you and complete the assignments. In addition, the online homework system myopenmath <https://www.myopenmath.com/> provides practice problems you can do and get instant feedback.

Do not fall behind!! Reading the textbook will be your primary way to learn the material for the course. I have set up a good guideline for how to keep pace online under "Course Schedule."

There will also be a playlist of videos that correspond with the examples in the book. You should use these to *supplement* the reading, not replace it, as there is a lot

of content in the book that is not included in the videos. These videos will hopefully help you understand an example if you're having trouble following it in print.

The book and videos will provide the theory and skills needed to approach the exercises, quiz, and writing assignment. Unlike algebra classes, this class is about solving problems, not just replicating skills, so some questions may not be exactly like problems in the book. For those, you will need to figure out how to adapt what you've learned to solve the new and different problem.

The best way to reach me is via email. This is how you can get help when you don't understand the book.

There will be a set of homework exercises assigned each week. The online homework exercises are available via "MyOpenMath." You are required to work through these exercises so that you can demonstrate that you understand the concepts. *They will be graded so you know what is right and what is wrong, but the grades will not be counted toward your class grade directly.* The homework demonstrates your effort on learning the material. If you miss a question, it will show the answer, allowing you to self-diagnose your mistake, and then you can try similar problems until you get the questions correct. You can ask questions in the discussion board about any homework questions you have difficulty with. These exercises will allow you to explore and practice the material from the chapter. The homework exercises will be available for practice for each exam.

There are no graded forum response, email, or log-in frequency requirements. However, I strongly encourage you to **not** wait until the last day before the exam to begin your assignments, as this does not allow time to seek out assistance if needed.

At the end of each topic there will be a **proctored** exam via Blackboard. You will have a weekend during which you can take this exam at your convenience. Once you start the exam, time will begin and you will have a limited time to finish the exercises. **Once you begin the exam, you must complete it during that time.**

This semester we will be studying these topics (in order):

Topic 1: Problem Solving
Topic 2: Finance
Topic 3: Voting Theory
Topic 4: Apportionment

Grading: There are four Exams, each contributing to 25% of your grade. The Exams will take place via ProctorFree on Blackboard.

Your weighted percent in the class will be converted to a decimal grade via this scale:
90-100%: A

80-89% : B
70-79% : C
60-69%: D
Below 60%: F

Exams: You will be required to complete the Proctor Free Practice Exam before taking any of the Topic Exams in this course.

ALL EXAMS MUST BE TAKEN USING PROCTOR FREE.

Any exam taken without using Proctor Free will be considered invalid, and the resulting grade will be changed to 0. For each exam, there is a window of 48 hours (or 2 days) to complete the exam through Proctor Free. Each exam will have a time limit of 4 hours, though in practice, most students finish the exam in less than 1.5 hours.

If you experience any technical difficulties (problems with Proctor Free or Blackboard, etc...) you must contact **SHSU Online Tech Support at (936) 294 - 2780 or via email at blackboard@shsu.edu** within the hour. You must also send me an email to keep me informed of your status. It is expected to include a screen shot demonstrating the technical issue that you are facing.

The normal operating hours for SHSU Online is

- Monday - Friday 24 hours
- Saturday 7 – Midnight
- Sunday 1 PM – Midnight

ALL ONLINE EXAM DEADLINES ARE FIRM.

Because of the pace of the course, it is imperative that you start your exams as soon as possible. Do not delay. Most technical difficulties can be resolved within an hour. You have the entire Course Calendar at the ready and you will know far in advance when the exams will open. No extensions will be granted for students who experience a technical difficulty and waited until the last hour of the examination window to start the exam.

If, due to medical emergencies, hospitalization or death of a close relative, you are unable to complete the exam in time, you are required to have a written official documentation identifying the dates you are unable to work (such as a doctor's note). All such documents will need direct verification before any extension is granted. For this reason, you will not have access to the solutions for your exam until all registered students have completed it.

During the examination:

- Once you start the exam, you must finish it in one session.
- You will be allowed to use:
 1. Our course textbook

2. A hand-held calculator (not a calculator app on your phone)
 3. Scratch paper and pencil or pen
- You must **SHOW YOUR WORK for each problem by placing your handwritten work or calculator** in front of the video camera for at least **3 seconds**.
 - During the exam
 - You must appear on camera at all times. The online environment is very different from the face-to-face classroom. The system will flag you for not appearing on camera during the exam.
 - You are not permitted to access any other websites beyond Blackboard, ProctorFree and the online version of the textbook.
 - You are not permitted to contact any person either on a device like a phone, messenger, computer or in-person.
 - You are not allowed to use a smart phone, iPad or any other electronic devices other than the computer and hand-held calculator
 - You must limit any background noise to a minimum and be in a well-lit room.

Failure to comply by the Exam Policy as stated above will be considered a violation of academic honesty and your exam will be rendered invalid. Further disciplinary actions may result, depending on the severity and frequency of the violation.

Feedback: The homework exercises are automatically graded so that you will receive instant feedback on those assignments.

Late Work Policy: The online exam deadlines are extremely firm. The link to these exams will actually disappear by the due date and time. Thus the exams must be completed by then. Because of this, I strongly recommend that you do not wait until there is less than 60 minutes left to start the test, which usually takes about an hour.

If something major comes up (a death in the family, hospitalization, etc.), go ahead and email me or call me to let me know, and we can work something out.

About Taking an Online Course: Taking an online course for the first time can be a daunting undertaking. Compared to traditional on-campus courses, they have their pros and cons. More and more people are taking courses online mainly because of the convenience. This course is asynchronous, which means students and the instructor are not necessarily online at the same time. Messages are posted to the discussion boards by both students and facilitators any time of day or night. The online classroom is open 24 hours a day, seven days a week. This allows you to take a class anytime you want. You are not tied down to a specific hour of the day, Monday through Friday, as with traditional college and university courses.

Most students will agree that online courses require more involvement time than traditional classes. It is not uncommon to spend around 15 to 20 hours each week on a course. However, the amount of time you would normally spend commuting to a campus, waiting for class to start, and then commuting home, can now be spent constructively on the course. As a result, many studies have shown that online courses

generally produce higher grades and greater learning than traditional courses. **But it does require a very committed, self-motivated, independent learner.**

A major con is the lack of physical interaction that occurs in a traditional course. This, however, can be seen as a pro. Many personal and individual biases are eliminated because we can't see each other. Quite often the person who is normally inhibited in a traditional class has the freedom to be very active in an online class. Also with this asynchronous model there can be multiple "conversations" happening simultaneously. You can respond to any or all of the discussion threads at any time, something that is impossible in the traditional classroom. As a result, you might get to know your fellow classmates much better than any lecture class you have taken or will take. But, when your interaction is lacking, the entire class suffers. **You have to be an active member of the class.**

Getting Help: The **Discussion Board is a forum where you can ask questions about the reading or homework**, and get help from me or your classmates. The idea is to have the class operate like a study group - with all of you working together to further your learning. This is what distinguishes an online class from a traditional distance learning or math lab course.

Use the Discussion Board to ask for help on problems you don't understand how to do. If you do understand how to do the problems, help out your classmates by answering questions on the discussion board.

I will monitor regularly the homework discussion boards, and will respond to questions if they go unanswered, or if someone provides an incorrect response. If you have additional questions, didn't understand the answer someone gave you, or have a question that has gone unanswered, don't hesitate to email me and ask questions. However, please use the discussion boards first, so that others can benefit from your questions.

I can't stress enough that **without being able to see the expression on your face, there's no way for me to judge if you understand my or a fellow student's explanation to your questions.** So, please keep your comments free from judgment and harsh criticism. **You need to be proactive about your learning**, and ask for more explanation when you need it. Again, you can do this via email to me, or in the discussion boards.

In addition to the discussion board and emailing me, you are also welcome to come see me on-campus if your schedule allows. See the Instructor Information to see what my office hours are this quarter.

Additionally, you can get help from the drop-in tutors at the Academic Support Center on either campus. Be aware that not all tutors have taken this math course, and may have difficulty helping you. Writing tutors are also available to help with writing assignments.

Instructor Contact: You can contact me via the discussion boards or via email.

If you have general questions about the course, you can ask them in the discussion forum. If the question is of a personal nature, feel free to email me.

If you have questions about the homework or readings, you can ask them in the weekly discussion forums. Feel free to email me, call me, or visit me for additional help.

When you post a message or email me, please understand that ***I am not online all the time. Please allow at least 24 hours for me to respond to your questions***, possibly longer on the weekends (up to 48 hours). Because of the asynchronous nature of the course, please ask questions early enough to allow time for a response.

Academic Integrity: Online courses have the same academic integrity as any other college course. You can trust that I will respond to your questions and comments in a timely manner, as well as be timely and fair in grading submitted assignments.

As your instructor, I trust that you will make your best effort to complete the activities in a timely manner and to the best of your abilities. If there is an unforeseen change in your schedule feel free to contact me for alternative arrangements. ***I expect that the work you submit for this course will be your own work. Cheating and/or plagiarism will not be tolerated.*** Please refer to the college's Academic Dishonesty policy for more details.

Online Etiquette: Much has been written about online etiquette. The old saying, "*Sticks and stones may break my bones, but words will never hurt me.*" is suddenly untrue. Words are our sole means of communication. Many times a sarcastic phrase you make to a friend is softened with a smile or eye contact. In an online situation, that same phrase can be very hurtful if read differently. Remember treat everyone the same way you would want to be treated: with respect.

There are ways to express emotions without words and you probably know much more about these "emoticons" or "emojis" than I do. ;-) :o) :-(etc... (For those less experienced: these are actually faces turned on their side to represent emotions.) They take the place of body language and facial expressions that are a natural part of communication. In this setting, it's difficult sometimes to discern between sarcasm and criticism. Using emoticons can often convey the context of the comment when words can't. Please be discerning when you write on discussion boards. Most importantly, I want to stress that **your comments must be free of sexual, verbal, and racial discrimination or harassment**. Any and all comments that violate this policy will be stricken and if I deem that such comments have been taken too far, you will be removed from the course.

Disability Services: It is the policy of Sam Houston State University that no otherwise qualified disabled individual shall, solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination

under any academic or Student Life program or activity. Disabled students may request assistance with academically related problems stemming from individual disabilities by contacting the Director of the Counseling Center in the Lee Drain Annex or by calling (936) 294-1720. Please bring all the necessary paperwork to the instructor before the end of the first week of classes in order to proceed with the requested accommodations. All disclosures of disabilities will be kept strictly confidential. NOTE: no accommodation can be made until the student registers with the Counseling Center.