# H.E. Bible 

MSCS $427 \quad$ Phone: 744-5791
Mon \& Wed 9:30-12:30 Others by appointment
Email: hebible@math.okstate.edu

| Instructor: | H.E. Bible |  |
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| Office: | MSCS 427 | Phone: 744-5791 |
| Office Hours: | Mon \& Wed 9:30-12:30 | Others by appointment |

## Textbook/Graphing Calculator

- APPLIED CALCULUS (Second Edition) by Hughes-Hallett, et al.
- A scientific or graphing calculator is required for this course (see Calculator section on pg. 4).


## Special Tutoring

Special tutoring with be offered for this course. Details and a schedule will be announced in class and posted on the website.

## Class Format

1. Lectures: Mondays and Wednesdays 1:30-2:20 ES 317

- Each lecture will cover 1 to 2 sections from the textbook (see attached schedule).
- Lecture notes are available on the course website. You are required to print these notes off and bring them to class.
- You are responsible for all the textbook material, even if it is not discussed in the lecture.
- There will be very little, if any, time for questions.
- Attendance is required and will be recorded via a signup sheet.
- Hour exams will be given at the normal lecture time in the lecture classroom (see attached schedule).

2. Quiz Sessions: Thursdays 75 minutes (start time / classroom depends on your section)

- You must attend the quiz section in which you are enrolled.
- You will ask questions about the lecture material and/or homework problems.
- Quiz Session TAs will return and discuss graded homework, quizzes and exams.
- You will turn in homework assignments and any take-home quizzes at the beginning of class.
- During most sessions, you will take a 20-point quiz during the last 15-20 minutes of the class.
- You must arrive on time and be present for the entire class period to turn in homework and take the quiz.


## Lecture Attendance Policy - 4 / 8 Rule

How well a student performs in a course is usually highly correlated with his/her attendance. Because of the importance I place on our class sessions as active learning opportunities, attendance is a required element of this course. There are 30 lecture sessions this semester. In order to pass this class, you must be physically present for more than $70 \%$ of these sessions ( 22 lectures). That is, if you miss more than eight (8) lecture sessions, you will automatically receive an F in the course.
The 4 / 8 Absence Rule will be strictly enforced.

- More than four (4) absences make you ineligible for the Low Exam Replacement Policy.
- More than eight (8) absences earn an automatic F in the course.

In this course, there is no such thing as an excused absence. If you were not physically present for a class, then you were absent - no exceptions, no excuses. Also NOT excused are absences due to University-sponsored activities, class field trips, and military training. However, the attendance policy is liberal enough to accommodate an occasional absence without serious penalty.
Attendance will be recorded by having you sign an attendance sheet which will be distributed during the lecture period. It is your responsibility to make sure that you sign the attendance sheet during each lecture. Do not sign the attendance sheet for another student or ask another student to sign for you. This is a serious offense of academic fraud and will be treated as such - all your attendance will be null and void resulting in more than 8 absences and an automatic $F$ in the course and you will be reported to the University Academic Integrity office for possible further sanctions.

Proper attendance also means arriving on time and remaining until the class is dismissed. It is your responsibility to arrive in lecture no later that 1:30. If you are late for whatever reason, please respect your classmates and do not interrupt the class session already in progress. Students entering the classroom late should sit in the last row at the back of the classroom and not sign the attendance sheet. If your objective for attending a class is to simply sign the attendance sheet and leave early, then you are abusing the system. You will be counted as absent if you are late or leave early. Students who continue to attempt to enter late or leave early after being counseled will be reported to the Academic Integrity office and appropriate University policies will be applied.

## Examinations

There will be three (3) fifty-minute 100-point examinations and a 200-point comprehensive final examination. All these exams will be given in the lecture classroom. You will need your calculator on the exams. The exams will be closed-book, but you will be allowed to use a 3 " by 5 " note card. Baseball caps or hats with wide brims are not allowed during any exam or quiz. No cell phones or other electronic devices (other than a calculator) should be visible during the exams or quizzes. Bring your Student ID to all examinations for identification. A schedule of the exams dates is given in the attached Class Schedule. Review these exam dates now and plan your semester schedule accordingly. Absolutely no makeup exams will be given for any reason. If you do miss an exam, the Low Exam Replacement Policy may apply provided you have 4 or fewer lecture absences.

## Low Exam Replacement Policy

If you make a low score on one of your hour exams, but make a higher percentage score on the final exam, it may be possible to replace that low exam score with your final exam percentage. This privilege is only applicable if you have four (4) or fewer lecture absences. Only one exam score is eligible for this substitution.

## Quizzes

In most Thursday Quiz Sessions, you will be given a 20-point quiz during the last 15-20 minutes of class. A total of twelve (12) quizzes will be given - ten (10) regular quizzes and two (2) makeup quizzes. Only your scores on the best ten (10) of these will be counted. That is, if you take all twelve, you can drop your lowest two scores. Your quiz score has a maximum value of 200 points - the equivalent of two 50 -minute exams. Since two of these quizzes are considered makeups, absolutely no additional makeups will be given for any reason. If you miss a quiz, you will receive a zero and it will be one of the two quiz scores you drop.
You will be able to use your calculator, but the quizzes will closed-book with no notes or note cards allowed. You must be present for the entire session to take the quiz. The quiz questions will involve topics covered on homework problems and lectures. Your success or failure on these quizzes will be a direct reflection of how much time and effort you are spending working and understanding the homework problems, studying the textbook and studying the lecture notes. In general, the material tested on each quiz will be the material covered since the last quiz. However, since much of mathematics is cumulative, there is always the possibility that some questions will rely on earlier concepts.
Some of these quizzes may be given in two parts: a 10-pt take-home quiz and 10-pt in-class quiz. For example, at the end of a Wednesday lecture, we may hand out a sheet of problems. You will take these problems home, work the problems and bring them to your Thursday Quiz Session. We will discuss the guidelines for these take-home quizzes if and when they are given.

## Homework

Homework assignments will be given for each section we cover. These assignments will be posted on the website. You should print these papers and work the problems on the printed paper. The assignments are due at the beginning of your quiz session. Due dates for the homework sets are noted on the course outline. Each homework set will consist of 1 to 3 lecture sections and will be graded for 10 points. A total of twelve (12) homework sets will be collected - ten (10) regular and two (2) makeup. Only your scores on the best ten (10) of these will be counted. That is, if you turn in all twelve, you can drop your lowest two scores. Since two of these are considered makeups, absolutely no additional makeups or late papers will be accepted for any reason. If you don't turn in a homework, you will receive a zero and it will be one of the two scores you drop.
Only selected problems on the homework sets will be graded. This means that you will not know what problems will be graded. Therefore, you should always work all the problems on every set and always be ready to turn it in to insure that you get the maximum points possible. Remember, the main objective for working the homework is for practice and to help you learn the course material. Any grade that you may receive is only a secondary objective.
These guidelines apply to homework papers:

- Absolutely no makeups will be given and no late papers will be accepted. If you do not turn in a homework set for any reason, you will receive a score of zero on that homework set and it may be one of the scores you drop.
- Homework papers will be turned in at the beginning of the Quiz Session. If you are late to class, you cannot submit the paper.
- You must attend the session to turn in homework. You must turn the paper in yourself - it cannot be turned in by a classmate.
- The paper must be the printed copy from the website. You cannot submit a handwritten copy.
- Your name \& Student Class Number must be on all pages. The pages should be in order and stapled in the upper left corner.
- It is your responsibility to know what sets are due and to turn in the proper papers (see Class Schedule).
- Papers that are lost, stolen, left at home, eaten by your dog, etc. (not turned in) will receive a grade of zero.
- Not submitting papers properly (printed copy, in order, stapled, with Student Class No., etc.) will result in a grade of zero.


## Course Grading

1. Homework
2. Quizzes
3. Exam 1
4. Exam 2
5. Exam 3
6. Comprehensive Final

100 points
200 points
100 points
100 points
100 points
200 points
$\square$
800 points
best 10 homework scores
best 10 quiz scores
low score may be replaced with Final Exam percent according to the Low Exam Replacement Policy

Semester grades are not negotiable. They will be assigned based solely on total points earned in the course subject to the Lecture Attendance Policy. The course grades will be firmly and equitably assigned with no curving based on total points as follows:

800-720 A, $719-640 \mathrm{~B}, \quad 639-560 \mathrm{C}, ~ 559-480 \mathrm{D}, 479$ and below F .

## Student Class Number

After the Drop and add period ends and the roll is official, you will be given a Student Class Number. This number will consist of your section number followed by a dash, followed by a sequential number indicating your alphabetical order in your section. For example, if you are in quiz section 9 and you are the $23^{\text {rd }}$ name alphabetically on the roll, your Student Class Number would be 9-23. The Student Class Number is very important and helpful to your instructors in sorting and organizing the papers and recording grades. You must remember this Student Class Number and put it on all homework, quiz and exam papers. If you fail to put your correct Student Class Number on a homework, quiz or exam paper, you will receive a grade of zero on the paper. Student Class Numbers will be assigned in Lecture on Wednesday, September 1. Your number will appear on the attendance signup sheet to the left of your name.

## Unclaimed Papers

It is very important that you get your graded homework, quizzes, and exams back in order to monitor your progress in the class, to identify and correct mistakes, and to use in preparing for future work. If your instructors take the time and effort to grade these papers, you should take responsibility to make sure that you get these papers back in a timely manner. Generally, these papers will be returned to the class within one week of being given. Any graded homework, quiz or exam that is not personally picked up by you within two (2) weeks of being returned to the class will receive a grade of zero (0).

## Who Should You Talk To

- All questions or issues concerning your grades or progress in the course, class policies, grading of an exam or quiz, attendance, etc. should be directed to me in my office - not to your Quiz Session TA, not by e-mail, not before/after class.
- Your quiz section TA are not authorized to accept late papers, give makeups, change homework/quiz scores, answer questions about grades, answer questions about class policies. All these issues should be directed to me.
- Questions about homework or course material - see your Quiz Session TA, attend the special tutoring sessions, or see me.


## Office Hours

My office hours are listed on Page 1. Your Quiz Session TA will give you their office hours during the first Quiz Session meeting. You are strongly encouraged to take advantage of these hours for help with the course material. Feel free to drop by anytime we're in. However, since we have a lot of students, this time will be on a first-come, first-served basis. If your schedule conflicts with these times, feel free to talk to us before or after class or e-mail us and we can arrange an appointment at a mutually acceptable time.

## E-mail Guidelines

My e-mail address is listed on Page 1 (notice it is @math.okstate.edu, not @okstate.edu). Feel free to e-mail me at anytime to set up an office appointment. Please use the following guidelines when you send me an e-mail:

- Use your OSU e-mail account (...@okstate.edu).
- I will not conduct any course business via e-mail. Any questions or issues involving class policies or grades must be taken care of in person in my office.
- The e-mail must have a Subject Line or it automatically gets put in my SPAM folder and I'll never see it.
- The e-mail must include your Student Class Number.
- Any e-mails written using "textese", "cyber slang", or other text message jargon will be DANR (Deleted And Not Read).


## Calculator

A calculator is required for this course. A graphing calculator like a TI83 Plus (or higher) is recommended. At a minimum, you should have a calculator that will perform exponentiation and logarithms. You may be able to check out a graphing calculator from the math department to use for free during the semester. Details will be announced in class.
Use of the calculator will be encouraged and allowed for all homework, quizzes and exams. However, please note that it is your responsibility to learn how to operate the calculator properly. Dead batteries, calculator failure or user errors are your responsibility. We will not answer any questions about calculator operation during an exam or quiz. If you forget your calculator or it malfunctions, you cannot borrow one from a classmate during an exam or quiz. Some calculators have calculus evaluation features. In this course you are not allowed to use these features. You must work the problems in this course using the manual techniques covered in the textbook and/or lecture.

## Partial Credit / Showing Work

Regardless of what you may be used to in previous math courses, in this course only minimal partial credit will be given. Homework will be graded more strictly than quizzes and exams. Homework, unlike proctored exams, has no time limit. You have access to the textbook, notes, and tutors. With all these resources, you should be able to carefully work the problems correctly and double check the solutions before you submit the papers. Therefore, very little, if any, partial credit will be given on homework.
Many of the problems you will be asked to work in this course require several calculation steps to arrive at the "answer." Just supplying that answer is usually not sufficient. We are interested in measuring whether you have mastered the techniques required for a complete solution. You will demonstrate this by showing all your steps at arriving at the final answer. Therefore, you must show all your work clearly and in detail. You will be graded on your total solution, not just the final answer. Answers alone with little or no work steps shown will result in no points. Also, when an answer has units (\$, feet, \$/item, etc.) you must include the units for full credit.

## Classroom Decorum

Because of the size of this class, any activity that is noisy or disruptive affects a large number of students. You are expected to act in an attentive, respectful, non-disruptive manner in the classroom. Cell phones, pagers, iPods and other electronic devices are to be turned off and put out of sight before the beginning of class. Activities during the lecture such as visiting with other students, talking on the phone, texting, reading the newspaper, working on material for another class, sleeping, playing video games, etc. show contempt for the learning process. You will be asked to leave the classroom if your actions involve the activities above and/or your actions are distracting or inattentive.
You should always come to lecture with a copy of the printed lecture notes. Viewing the lecture notes using a laptop during the lecture is permitted provided you discuss it with me at the beginning of the semester. However, it should be for your personal use alone; you cannot share the screen with a neighbor.

During the semester if another student is creating a disturbing or distracting environment for you, please let me know and I will correct the situation quickly.

## Course Website

We will use the OSU Online Classroom system - Desire2Learn (D2L) at https://oc.okstate.edu for the course website. When you access your courses in D2L, there may be two entries for Math 2103. Always pick the one that is the combination of sections 7-12.

Grades will NOT be posted on the website. However, the course website will have valuable information pertaining to this course including homework papers, lecture notes and quiz/exam solution keys. Most of these are PDF documents so you will need to have Acrobat Reader installed on your computer. Before coming to class, you should print off the lecture notes and bring them with you to help with taking notes and following along with the lecture. These lecture notes are full-page documents, with large print - exactly like those displayed in lecture. To save paper, you may want to use certain print options to print more than one page per sheet of paper. Refer to Acrobat Help to see how this printing might be done.
The website is a required feature of the course. However, technical problems with the site or your inability to access it should not be used as an excuse for not fulfilling the course requirements. If you do have problems accessing the website, contact the IT Helpdesk. Furthermore, reviewing the lecture notes online is not a sufficient substitute for actually attending the lecture.

## University Policies / Academic Integrity

All university policies will be followed in this course. It is your responsibility to know and comply with all university policies and deadlines. The university has prepared a syllabus attachment document which contains important information. You can view the document at http://osu.okstate.edu/acadaffr/aa/syllabusattachment-fall.htm.

OSU is committed to the maintenance of the highest standards of integrity and ethical conduct. This level of ethical behavior and integrity will be maintained in this course. A document outlining academic integrity issues specific for this class can be found in the Miscellaneous section of the course website. OSU's academic integrity policies can be viewed at http://academicintegrity.okstate.edu.

## Special Accommodations for Students

If you have a need for special accommodations of any nature, I will work with you and the Office of Student Disability Services to provide reasonable accommodations to ensure that you have a fair opportunity to perform in the class. Please advise me of such disability and the desired accommodations as soon as possible during the first week of class.

If Student Disability Services has determined that you require extending testing time, you should meet with me as soon as possible to discuss several very specific requirements for this extended testing time.

## How to be Successful in This Course

- Take the Responsibility for Your Own Success. The wrong attitude, absences, and laziness are usually the main causes for failing this course. Devote the appropriate amount of time and effort needed to learn the material. Don't waste time making up excuses for not doing the required work.
- Abide by All Course Rules and Policies. Understand the policies for attendance and for no makeup homework, quizzes and exams. Don't ask for or expect any exceptions to the attendance policy, makeup policy or other course policies.
- Attend All Lectures and Quiz Sessions. Print the lecture notes off the website and bring them to class. Arrive on time and don't leave early. Pay attention, take good notes. Ask questions and participate in the Quiz Sessions.
- Work and Understand All the Homework. Study (not just read) the lecture notes and the textbook sections before you start the problems. Work the problems every day. Don't get behind or wait until the night before an assignment is due to study.
- Use the Course Resources. Start a routine early in the semester of going to the special tutoring regularly for help. Use your quiz section TA's and/or your lecture professor's office hours for help.


## Important Class Rules / Policies

1. Absolutely no late or makeup homework will be accepted and no makeup exams or quizzes will be given and absolutely no excused lecture absences will be granted regardless of the reason. This policy will be firmly applied with no exceptions. Sickness, accidents, emergencies, personal/family issues, funerals, job interviews, vacation/semester break plans, military training, and even University sponsored / approved absences are all NOT accepted. Consequently, there is no point in trying to discuss the reason for your absence or the reason for the missed homework, exam or quiz with your instructor - it will not be excused.
2. Semester grades are not negotiable. They will be assigned based solely on total points earned in the course subject to the Lecture Attendance Policy. Course grades will be firmly and equitably assigned with no curving. Minimum total points needed are $720-\mathrm{A}, 640-\mathrm{B}, 560-\mathrm{C}, 480-\mathrm{D}$. Missing these minimums by even one point will result in a lower grade.
3. The 4 / 8 Absence Rule will be strictly enforced. More than four (4) lecture absences make you ineligible for the Low Exam Replacement Policy. More than eight (8) lecture absences earn an automatic F in the course.
4. See your lecture professor for all class issues. All questions or issues concerning grading or class policies should be discussed with your lecture professor in person, in his office - not with your quiz section TA, not by e-mail, not before or after class.
5. Learn your Student Class Number. You must put your Student Class Number on all homework, quizzes and exams to avoid getting a zero on the paper.
6. Do not waste your TA's time. Just like you, your quiz section TAs must follow very strict class policies. They cannot change exam, quiz or homework grades. They cannot give a makeup quiz. They cannot accept early or late homework. They cannot give a quiz earlier than the last 20 minutes of class. Don't waste their time asking them to break the rules and do something they are not allowed to do.

Any changes in this syllabus or class schedule will be communicated to you in class by the instructor.

## Class Schedule

| Wk | Lec | Date | Section/Topic | Wk | Lec | Date | Section/Topic |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | 1 | Aug 23 Mon | Course Overview <br> 1.1 What is a Function? | 11 | 20 | Nov 01 Mon | 3.4 The Product \& Quotient Rule (cont) 4.1 Local Max/Min |
|  | 2 | Aug 25 Wed | 1.2 Linear Functions |  | 21 | Nov 03 Wed | 4.1 Local Max/Min (cont) 4.2 Inflection Points |
|  |  | Aug 26 Thu | Quiz Session |  |  | Nov 04 Thu | Quiz Session Q10 3.4, 4.1 |
|  |  |  |  |  |  |  | HW10 3.4, 4.1 |
| 2 | 3 | Aug 30 Mon | 1.3 Rates of Change | 12 | 22 | Nov 08 Mon | 4.2 Inflection Points (cont) 4.3 Global Max/Min |
|  | 4 | Sep 01 Wed | 1.4 App of Functions to Economics |  | 23 | Nov 10 Wed | 4.4 Profit, Cost and Revenue |
|  |  | Sep 02 Thu | Quiz Session Q1 1.1, 1.2, 1.3 |  |  | Nov 11 Thu | Quiz Session Q11 4.2, 4.3 |
|  |  |  | HW1 1.1, 1.2, 1.3 |  | (3) |  | HW11 4.2, 4.3 |
| 3 |  | Sep 06 Mon | University Holiday | 13 | 24 | Nov 15 Mon | 4.5 Average Cost |
|  | 5 | Sep 08 Wed | 1.5 Exponential Functions 1.6 The Natural Logarithm |  | 25 | Nov 17 Wed | 4.6 Elasticity of Demand |
|  |  | Sep 09 Thu | Quiz Session Q2 1.4, 1.5, 1.6 |  |  | Nov 18 Thu | Quiz Session Q12 4.4, 4.5, 4.6 |
|  |  |  | HW2 1.4, 1.5, 1.6 |  |  |  | HW12 4.4, 4.5, 4.6 |
| 4 | 6 | Sep 13 Mon | 1.7 Exponential Growth \& Decay | 14 | 26 | Nov 22 Mon | Exam 3 - 3.4, 4.1-4.6 |
|  | 7 | Sep 15 Wed | 1.8 New Functions from Old |  |  | Nov 24 Wed | University Holiday |
|  |  | Sep 16 Thu | Quiz Session Q3 1.7 |  |  | Nov 25 Thu | University Holiday |
|  |  |  | HW3 1.7 |  |  |  |  |
| 5 | 8 | Sep 20 Mon | 1.9 Prop, Power Functions, Polynomials | 15 | 27 | Nov 29 Mon | 9.1 Functions of Two Variables |
|  | 9 | Sep 22 Wed | Exam 1 - 1.1-1.9 |  | 28 | Dec 01 Wed | 9.3 Partial Derivatives |
|  |  | Sep 23 Thu | Quiz Session Q4 1.8, 1.9 |  |  | Dec 02 Thu | Quiz Session |
|  |  |  | HW4 1.8, 1.9 |  |  |  |  |
| 6 | 10 | Sep 27 Mon | 2.1 Instantaneous Rate of Change | 16 | 29 | Dec 06 Mon | 9.4 Computing Partial Derivatives |
|  | 11 | Sep 29 Wed | 2.2 The Derivative Function |  | 30 | Dec 08 Wed | 9.4 Computing Partial Derivatives (cont) Review for Final |
|  |  | Sep 30 Thu | Quiz Session Q5 2.1 |  |  | Dec 09 Thu | Quiz Session - Review for Final |
|  |  |  | HW5 2.1 |  |  |  |  |
| 7 | 12 | Oct 04 Mon | 2.3 Interpretations of the Derivative | 17 |  | Dec 13 Mon | Final Exam Comprehensive |
|  | 13 | Oct 06 Wed | 2.4 The Second Derivative |  |  |  | 2:00-3:50 pm |
|  |  | Oct 07 Thu | Quiz Session Q6 2.2, 2.3 |  |  |  | The date/time of the Final |
|  |  |  | HW6 2.2, 2.3 |  |  |  | is set by the University. |
| 8 | 14 | Oct 11 Mon | 2.5 Marginal Cost and Revenue |  |  |  | It cannot and will not be changed. |
|  | 15 | Oct 13 Wed | 3.1 Deriv. of Powers \& Polynomials |  |  |  |  |
|  |  | Oct 14 Thu | Quiz Session Q7 2.4, 2.5 |  |  |  |  |
|  | (1) |  | HW7 2.4, 2.5 |  |  |  |  |
| 9 | 16 | Oct 18 Mon | 3.2 Exponential and Log Functions |  | (1) | Oct 15, Fri | Fall Break |
|  | 17 | Oct 20 Wed | 3.3 The Chain Rule |  |  |  |  |
|  |  | Oct 21 Thu | Quiz Session Q8 3.1, 3.2 |  | (2) | Oct 23, Sat | Homecoming |
|  | (2) |  | HW8 3.1, 3.2 |  |  |  |  |
| 10 | 18 | Oct 25 Mon | 3.4 The Product \& Quotient Rule |  | (3) | Nov 12, Fri | Last Day to Drop a Course |
|  | 19 | Oct 27 Wed | Exam 2 - 2.1-2.5, 3.1-3.3 |  |  |  |  |
|  |  | Oct 28 Thu | Quiz Session Q9 3.3, 3.4 |  |  |  |  |
|  |  |  | HW9 3.3, 3.4 |  |  |  |  |

