Course Meetings

Meeting Days
MoTuWeThFr

Meeting Times
1:00 PM - 3:23 PM

Meeting Location
Rm 212 Spring Branch Campus

Lecture
MoTuWeThFr 1:00 - 3:23 PM
Spring Branch Campus Rm 212

Welcome and Instructor Information

Instructor: Phil Unruh
Email: phil.unruh@hccs.edu
Office: Spring Branch AD6
Phone: 7137185874

What's Exciting About This Course
I hope you will find this course fun, exciting, and very useful in the relationship of how math changes to life change.

My Personal Welcome
Welcome to Calculus I —I’m delighted that you have chosen this course! One of my passions is to know as much as I can about math in day-to-day life and I can hardly wait to pass that on. I will present the information in the most straight forward way I know, so that you can grasp the concepts and apply them now and hopefully throughout your life.

As you read and wrestle with new ideas and facts that may challenge you, I am available to support you. The fastest way to reach me is by my HCC email. The best way to really discuss issues is in person and I’m available during posted office hours to tackle the questions. My goal is for you to be successful in the college math course. So please visit me or contact me by email whenever you have a question.

Preferred Method of Contact
The preferred method of contact in this course is via email originated from the online platform Canvas. The student may also email me directly from his HCC student email account to my email address stated above. Please include your full name and
Office Hours
12:00 - 1:00 PM
Monday, Tuesday, Wednesday, Thursday, Friday, 12:00 PM to 1:00 PM, Spring Branch Room AD6

Office Hours: MoTuWeThFr 12:00-1:00 PM, or by appointment.

Instructor: Phil Unruh
Email: phil.unruh@hccs.edu
Office: Spring Branch AD6
Phone: 7137185874

Course Overview

Course Description
MATH 2413 - Calculus I Credits: 4 (4 lecture). This course is a freshman level course that provides the background in mathematics for science and engineering students, and or further study in mathematics and its application. Topics include limits and continuity; the Fundamental Theorem of Calculus; definition of the derivative of a function and techniques of differentiation; applications of the derivative to maximizing or minimizing a function; the chain rule, mean value theorem, and rate of change problems; curve sketching; definite and indefinite integration of algebraic, trigonometric, and transcendental functions, with an application to calculation of areas. Core Curriculum Course.

Prerequisites
Math 2412 or consent of the Department Chair. A grade of "C" or better in Math 2412.

Department Website
https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/mathematics/

Core Curriculum Objectives (CCOs)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Through the Texas Core Curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world, develop principles of personal and social responsibility for living in a diverse world, and advance intellectual and practical skills that are essential for all learning.

- Critical Thinking: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information.
- Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication.
- Quantitative and Empirical Literacy: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions.

Student Learning Outcomes and Objectives

Program Student Learning Outcomes (PSLOs)

Students in the Mathematics Program will:

1. Engage in problem solving strategies, such as organizing information, drawing diagrams and modeling.
2. Use symbolic representations to solve problems. This includes manipulating formulas, solving equations, and graphing lines.
3. Build the foundational mathematical skills that will enable a student to successfully complete a college level mathematics course.
Course Student Learning Outcomes (CSLOs)

Upon completion of MATH 2413, the student will be able to:

1. Develop solutions for tangent and area problems using the concepts of limits, derivatives, and
2. Draw graphs of algebraic and transcendental functions considering limits, continuity, and differentiability at a point.
3. Determine whether a function is continuous and/or differentiable at a point using limits.
4. Use differentiation rules to differentiate algebraic and transcendental functions.
5. Identify appropriate calculus concepts and techniques to provide mathematical models of real-world situations and determine solutions to applied problems.
6. Evaluate definite integrals using the Fundamental Theorem of Calculus.
7. Articulate the relationship between derivatives and integrals using the Fundamental Theorem Calculus.

Learning Objectives

Upon completion of this course the student will demonstrate

1. Knowledge of limits by:
   a. computing limits at a point and at infinity analytically,
   b. applying the definition of continuity,
   c. determining where a function is continuous or discontinuous,
2. Knowledge of differentiation by:
   a. finding the derivative of a function using the limit definition,
   b. finding the equation of the tangent line to a curve at a point,
   c. finding the rate of change of a function,
   d. finding derivatives of polynomial, trigonometric, using differentiation rules,
   e. finding derivatives using the product, quotient and chain rules,
   f. implicitly differentiating equations,
   g. computing higher order derivatives,
   h. finding the intervals on which a function increases or decreases,
   i. determining maximum and minimum points of a function,
   j. finding the intervals on which a function is concave up or concave down
   k. determining points of inflection of a function
   l. using the first and second derivative tests to find relative extrema,
   m. applying Rolle’s theorem and the Mean Value theorem,
   n. solving ‘real world’ optimization problems,
   o. solving ‘real world’ problems involving related rates,
3. Knowledge of integration by:
   a. finding antiderivatives involving polynomial and trigonometric functions,
   b. evaluating a definite integral using Riemann sums,
   c. computing the average value of a function over an interval,
   d. computing definite integrals using the Fundamental Theorem of Calculus,
   e. solving applied problems using definite integrals,
   f. finding indefinite integrals with a change of variables,
   g. finding the area or regions under and between curves
4. Knowledge of transcendental functions by:
   a. finding derivatives of the natural logarithmic function
   b. finding derivatives of exponential functions
   c. finding antiderivatives which result in natural logarithmic and exponential functions
5. Knowledge of inverse functions
Departmental Practices and Procedures

The Mathematics Department has specific expectations for calculators, proctored exams and grading policies. Refer to the Course Requirements and Devices sections below.

Instructional Materials and Resources

Instructional Materials


Temporary Free Access to E-Book

For temporary free access to WebAssign and the online eBook, go to http://webassign.net and register in Canvas.

Other Instructional Resources

Courseware

Additional instructional resources, such as worksheets, access to Webassign will be provided by the instructor in Canvas.

Course Requirements

Assignments, Exams, and Activities

<table>
<thead>
<tr>
<th>Type</th>
<th>Weight</th>
<th>Topic</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>25%</td>
<td>Webassign</td>
<td>Mandatory online homework will be done in Webassign, which can be accessed only through Canvas</td>
</tr>
<tr>
<td>Exams/Quizzes</td>
<td>50%</td>
<td></td>
<td>One of the four major exam grades (the lowest grade) will be dropped.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Make-up Exams: No make-up exams will be given for any reason.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>All exams will be given during the regular schedule class time.</td>
</tr>
<tr>
<td>Final Exam</td>
<td>25%</td>
<td>All students will be required to take a cumulative Final exam</td>
<td>The Math Department will offer several Final Exam Review sessions (i.e., HCC Math Days) for this course near the end of the semester (Fall and Spring semesters only). We encourage you to attend at least one of these sessions as you prepare for the comprehensive Final Exam. Your professor will provide you with more information regarding HCC Math Days locations and session times later in this semester. While the full-time Math Department faculty leading these review sessions are prepared to answer students’ questions on a variety of course topics, the Final Exam Study Guide will provide the basis for the HCC Math Days sessions. Therefore, to get the most out of these review sessions, be sure review and to work through the Final Exam Study Guide before you attend the review session(s). Please ask your professor if you have any questions regarding these sessions. Finally, the Math 2413 Final Exam Study Guide and the dates for the Math Days review sessions are located at: <a href="https://cofinite.com/MathDays/Math2413.php">https://cofinite.com/MathDays/Math2413.php</a> (<a href="https://cofinite.com/MathDays/Math2413.php">https://cofinite.com/MathDays/Math2413.php</a>)</td>
</tr>
<tr>
<td>Extra Credit</td>
<td></td>
<td></td>
<td>Describe the assignment here.</td>
</tr>
</tbody>
</table>
Grading Formula

<table>
<thead>
<tr>
<th>Grade</th>
<th>Range</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>90 - 100</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>80 - 89</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>70 - 79</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>60 - 69</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>&lt; 60</td>
<td></td>
</tr>
<tr>
<td>FX</td>
<td></td>
<td>The grade of FX is given when a student fails due to lack of attendance.</td>
</tr>
<tr>
<td>W</td>
<td></td>
<td>A grade of W may be given on or before the official withdrawal date but not at the time of final grade submission. The last day to withdraw is June 27, 2022.</td>
</tr>
</tbody>
</table>

* Instructor's Practices and Procedures

Incomplete Policy

In order to receive a grade of Incomplete ("I"), a student must have completed at least 85% of the work in the course. In all cases, the instructor reserves the right to decline a student’s request to receive a grade of Incomplete.

Missed Assignments/Make-Up Policy

No make-up exams will be given for any reason. One of the four major test grades (the lowest grade) will be dropped.

Academic Integrity

Here’s the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance):

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/  
(https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/)

Attendance Procedures

This class is In-person Class, as the information that is discussed in class is important for your career, students may be dropped from a course after accumulating absences in excess of six (6) hours of instruction. The six hours of class time would include any total classes missed or for excessive tardiness or leaving class early.

Poor attendance records tend to correlate with poor grades. If you miss any class, including the first week, you are responsible for all material missed. It is a good idea to find a friend or a buddy in class who would be willing to share class notes or discussion or be able to hand in your work if you unavoidably miss a class. If a student is absent from class, it still remains the student’s responsibility to secure the notes from one of the other members of the class and to submit any required assignments.

The last day to withdraw June 27, 2022.

Student Conduct

Students should not engage in disruptive activities while in the classroom. Any conduct that is deemed unprofessional to the academic atmosphere, such as cell phone use or consistent talking during instructional delivery, will not be tolerated. Any student found guilty of such conduct will be asked to leave the classroom.
Instructor’s Course-Specific Information

All grades will be kept in the Canvas Gradebook. The homework, Webassign, will sync grades into Canvas. Always enter homework from the Canvas page. Exam grades will be entered when the test is submitted and graded.

Devices

A scientific calculator will be required for certain content of this course to successfully complete the homework and test reviews. An understanding of calculus is imperative for engineering, science, and mathematics disciplines. The material in this course will be supported by the use of a graphing calculator and appropriate mathematical software. **No symbolic calculators will be allowed on exams.** These include, but are not limited to, TI-89, TI-92, HP-48, TI-CAS, CE, CX. No cell phones or equivalent will be used during exams.

All personal communication devices (any device with communication capabilities including but not limited to cell phones, blackberries, pagers, cameras, palmtop computers, laptops, PDA’s, radios, headsets, portable fax machines, recorders, organizers, databanks, and electronic dictionaries or translators) must be muted or turned off during class. Such activity during class time is deemed to be disruptive to the academic process. Personal communication devices are to not be on the student desk during examinations. Usage of such devices during exams is expressly prohibited during examinations and will be considered cheating.

Faculty Statement about Student Success

Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Each chapter has power points, videos, and interactive content for your access to success.

Instructional Modalities

**In-Person (P)**

Safe, face-to-face course with scheduled dates and times

Faculty-Specific Information Regarding Canvas

This course section will use Canvas (https://eagleonline.hccs.edu) to supplement in-class assignments, exams, and activities. This section of MATH 2413 has associated with it a course in Canvas to supplement in-class assignments, exams, and activities. Canvas (https://eagleonline.hccs.edu) HCCS Open Lab locations may be used to access the Internet and Canvas. It is recommended that you USE FIREFOX OR CHROME AS THE INTERNET BROWSER.

For Eagle Online technical support, click https://www.hccs.edu/resources-for/current-students/communicable-diseases/resources-for-students/student-instructional-resources/ (https://www.hccs.edu/resources-for/current-students/communicable-diseases/resources-for-students/student-instructional-resources/)

Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. https://eagleonline.hccs.edu/login/ldap (https://eagleonline.hccs.edu/login/ldap)
HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it’s built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

Social Justice Statement

Houston Community College is committed to furthering the cause of social justice in our community and beyond. HCC does not discriminate on the basis of race, color, religion, sex, gender identity and expression, national origin, age, disability, sexual orientation, or veteran status. I fully support that commitment and, as such, will work to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. In this course, we share in the creation and maintenance of a positive and safe learning environment. Part of this process includes acknowledging and embracing the differences among us in order to establish and reinforce that each one of us matters. I appreciate your suggestions about how to best maintain this environment of respect. If you experience any type of description, please contact me and/or the Office of Institutional Equity at 713-718-8271.

HCC Policies and Information

HCC Grading System

HCC uses the following standard grading system:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Interpretation</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Excellent (90-100)</td>
<td>4</td>
</tr>
<tr>
<td>B</td>
<td>Good (80-89)</td>
<td>3</td>
</tr>
<tr>
<td>C</td>
<td>Fair (70-79)</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>Passing (60-69), except in developmental courses.</td>
<td>1</td>
</tr>
<tr>
<td>F</td>
<td>Failing (59 and below)</td>
<td>0</td>
</tr>
<tr>
<td>FX</td>
<td>Failing due to non-attendance</td>
<td>0</td>
</tr>
<tr>
<td>W</td>
<td>Withdrawn</td>
<td>0</td>
</tr>
<tr>
<td>I</td>
<td>Incomplete</td>
<td>0</td>
</tr>
<tr>
<td>AUD</td>
<td>Audit</td>
<td>0</td>
</tr>
<tr>
<td>IP</td>
<td>In Progress. Given only in certain developmental courses. A student must re-enroll to receive credit.</td>
<td>0</td>
</tr>
<tr>
<td>COM</td>
<td>Completed. Given in non-credit and continuing education courses.</td>
<td>0</td>
</tr>
</tbody>
</table>

Link to Policies in Catalog and Student Handbook

Here’s the link to the HCC Catalog and Student Handbook: [https://catalog.hccs.edu/](https://catalog.hccs.edu/)
In it you will find information about the following:

- Academic Information
- Academic Support
- Attendance, Repeating Courses, and Withdrawal
- Career Planning and Job Search
- Childcare
- disAbility Support Services
- Electronic Devices
- Equal Educational Opportunity
- Financial Aid TV (FATV)
- General Student Complaints
- Grade of FX
- Incomplete Grades
- International Student Services
- Health Awareness
- Libraries/Bookstore
- Police Services & Campus Safety
- Student Life at HCC
- Student Rights and Responsibilities
- Student Services
- Testing
- Transfer Planning
- Veteran Services

**Link to HCC Academic Integrity Statement**

https://www.hccs.edu/student-conduct (scroll down to subsections)

**Campus Carry Link**

Here's the link to the HCC information about Campus Carry:

https://www.hccs.edu/campuscarry

**HCC Email Policy**

When communicating via email, HCC requires students to communicate only through the HCC email system to protect your privacy. If you have not activated your HCC student email account, you can go to HCC Eagle ID and activate it now. You may also use Canvas Inbox to communicate.

**Office of Institutional Equity**

Use the following link to access the HCC Office of Institutional Equity, Inclusion, and Engagement: https://www.hccs.edu/eeo

**Ability Services**

HCC strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including long and short term conditions, mental health, chronic or temporary medical conditions), please meet with a campus Abilities Counselor as soon as possible in order to establish reasonable accommodations. Reasonable accommodations are established through an interactive process between you, your instructor(s) and Ability Services. It is the policy and practice of HCC to create inclusive and accessible learning environments consistent with federal and state law. For more information, please go to https://www.hccs.edu/accessibility

**Title IX**

Houston Community College is committed to cultivating an environment free from inappropriate conduct of a sexual or gender-
based nature including sex discrimination, sexual assault, sexual harassment, and sexual violence. Sex discrimination includes all forms of sexual and gender-based misconduct and violates an individual’s fundamental rights and personal dignity. Title IX prohibits discrimination on the basis of sex-including pregnancy and parental status in educational programs and activities. If you require an accommodation due to pregnancy please contact an Abilities Services Counselor. The Director of EEO/Compliance is designated as the Title IX Coordinator and Section 504 Coordinator. All inquiries concerning HCC policies, compliance with applicable laws, statutes, and regulations (such as Title VI, Title IX, and Section 504), and complaints may be directed to:

David Cross  
Director EEO/Compliance  
Office of Institutional Equity & Diversity  
3100 Main  
(713) 718-8271  
Houston, TX 77266-7517 or Institutional.Equity@hccs.edu (mailto:Institutional.Equity@hccs.edu)

https://www.hccs.edu/titleix

Office of the Dean of Students
Contact the office of the Dean of Students to seek assistance in determining the correct complaint procedure to follow or to identify the appropriate academic dean or supervisor for informal resolution of complaints.


Student Success
Expect to spend at least twice as many hours per week outside of class as you do in class studying the course content. Additional time will be required for written assignments. The assignments provided will help you use your study hours wisely. Successful completion of this course requires a combination of the following:

- Reading the textbook
- Attending class in person and/or online
- Completing assignments
- Participating in class activities

There is no short cut for success in this course; it requires reading (and probably re-reading) and studying the material using the course objectives as a guide.

Canvas Learning Management System
Canvas is HCC’s Learning Management System (LMS), and can be accessed at the following URL:

https://eagleonline.hccs.edu

HCCS Open Lab locations may be used to access the Internet and Canvas. For best performance, Canvas should be used on the current or first previous major release of Chrome, Firefox, Edge, or Safari. Because it’s built using web standards, Canvas runs on Windows, Mac, Linux, iOS, Android, or any other device with a modern web browser.

Canvas only requires an operating system that can run the latest compatible web browsers. Your computer operating system should be kept up to date with the latest recommended security updates and upgrades.

HCC Online Information and Policies
Here is the link to information about HCC Online classes, which includes access to the required Online Information Class Preview for all fully online classes: https://www.hccs.edu/online/ (https://www.hccs.edu/online/)

Scoring Rubrics, Sample Assignments, etc.
Look in Canvas for the scoring rubrics for assignments, samples of class assignments, and other information to assist you in the course. [https://eagleonline.hccs.edu/](https://eagleonline.hccs.edu/)

**Instructor and Student Responsibilities**

**As your Instructor, it is my responsibility to:**

- Provide the grading scale and detailed grading formula explaining how student grades are to be derived
- Facilitate an effective learning environment through learner-centered instructional techniques
- Provide a description of any special projects or assignments
- Inform students of policies such as attendance, withdrawal, tardiness, and making up assignments
- Provide the course outline and class calendar that will include a description of any special projects or assignments
- Arrange to meet with individual students during office hours, and before and after class as required

**As a student, it is your responsibility to:**

- Attend class in person and/or online
- Participate actively by reviewing course material, interacting with classmates, and responding promptly in your communication with me
- Read and comprehend the textbook
- Complete the required assignments and exams
- Ask for help when there is a question or problem
- Keep copies of all paperwork, including this syllabus, handouts, and all assignments
- Be aware of and comply with academic honesty policies in the [HCCS Student Handbook](https://www.hccs.edu/studenthandbook)

**EGLS3**

The EGLS3 ([Evaluation for Greater Learning Student Survey System](https://www.hccs.edu/egls3)) will be available for most courses near the end of the term until finals start. This brief survey will give invaluable information to your faculty about their teaching. Results are anonymous and will be available to faculty and division chairs after the end of the term. EGLS3 surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.

[https://www.hccs.edu/egls3](https://www.hccs.edu/egls3)

**Housing and Food Assistance for Students**

Any student who faces challenges securing their foods or housing and believes this may affect their performance in the course is urged to contact the Dean of Students at their college for support. Furthermore, please notify the professor if you are comfortable in doing so.

This will enable HCC to provide any resources that HCC may possess.

**Student Resources**

**Tutoring**

HCC provides free and convenient academic support, in a large variety of subjects, to HCC students in both an online environment and in-person on campus. Tutoring is provided by HCC personnel in order to ensure that it is appropriate. Visit the HCC Tutoring Services website for more information at [https://hccs.edu/tutoring](https://hccs.edu/tutoring).

**Libraries**

The HCC Library System consists of 9 libraries and 6 Electronic Resource Centers (ERCs) that are inviting places to study and collaborate on projects. Librarians are available both at the libraries and online to show you how to locate and use the resources you need. The libraries maintain a large selection of electronic resources as well as collections of books, magazines, newspapers, and audiovisual materials. The portal to all libraries’ resources and services is the HCCS library web page at [https://library.hccs.edu](https://library.hccs.edu).
Supplementary Instruction
Supplemental Instruction is an academic enrichment and support program that uses peer-assisted study sessions to improve student retention and success in historically difficult courses. Peer Support is provided by students who have already succeeded in completion of the specified course, and who earned a grade of A or B. Find details at https://www.hccs.edu/supplemental-instruction

Resources for Students:
https://www.hccs.edu/covid19students

Basic Needs Resources:
https://www.hccs.edu/support-services/counseling/hcc-cares/basic-needs-resources/

Student Basic Needs Application:
https://www.hccs.edu/basicneeds

COVID-19
Here’s the link to the HCC information about COVID-19:
https://www.hccs.edu/covid-19

Sensitive or Mature Course Content
In this college-level course, we may occasionally discuss sensitive or mature content. All members of the classroom environment, from your instructor to your fellow students, are expected to handle potentially controversial subjects with respect and consideration for one another’s varied experiences and values.

Instructional Modalities

In-Person (P)
Safe, face-to-face course with scheduled dates and times

Online on a Schedule (WS)
Fully online course with virtual meetings at scheduled dates and times

Online Anytime (WW)
Traditional online course without scheduled meetings

Hybrid (H)
Course that meets safely 50% face-to-face and 50% virtually

Hybrid Lab (HL)
Lab class that meets safely 50% face-to-face and 50% virtually

Copyright Statement
In order to uphold the integrity of the academic environment and protect and foster a cohesive learning environment for all, HCC prohibits unauthorized use of course materials. Materials shared in this course are based on my professional knowledge and experience and are presented in an educational context for the students in the course. Authorized use of course materials is limited to personal study or educational uses. Material should not be shared, distributed, or sold outside the course without permission. Students are also explicitly forbidden in all circumstances from plagiarizing or appropriating course materials. This includes but is not limited to publically posting quizzes, essays, or other materials. This prohibition extends not only during this course, but after. Sharing of the materials in any context will be a violation of the HCC Student Code of Conduct and may subject the student to discipline, as well as any applicable civil or criminal liability. Consequences for unauthorized sharing, plagiarizing,
or other methods of academic dishonesty may range from a 0 on the specified assignment and/or up to expulsion from Houston Community College. Questions about this policy may be directed to me or to the Manager of Student Conduct and Academic Integrity.

# Course Calendar

## Syllabus Modifications

The instructor reserves the right to modify the syllabus at any time during the semester and will promptly notify students in writing, typically by e-mail, of any such changes.

*Tentative Instructional Outline:*

<table>
<thead>
<tr>
<th>Week Number</th>
<th>Reading Assignment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>REVIEW FUNCTIONS AND THEIR GRAPHS, A PREVIEW OF CALCULUS, FINDING LIMITS GRAPHICALLY AND NUMERICALLY.</td>
<td>CHAPTER 1</td>
</tr>
<tr>
<td>1</td>
<td>EVALUATING LIMITS ANALYTICALLY, CONTINUITY AND ONE-SIDED LIMITS, INFINITE LIMITS.</td>
<td>CHAPTER 1</td>
</tr>
<tr>
<td>1</td>
<td>REVIEW COMPUTER ASSIGNMENT 1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Test 1</td>
<td>June 9</td>
</tr>
<tr>
<td>2</td>
<td>THE DERIVATIVE AND THE TANGENT LINE PROBLEM, BASIC DIFFERENTIATION RULES AND RATES OF CHANGE, THE PRODUCT AND QUOTIENT RULES AND HIGHER ORDER DERIVATIVES.</td>
<td>CHAPTER 2</td>
</tr>
<tr>
<td>2</td>
<td>THE CHAIN RULE, IMPLICIT DIFFERENTIATION, RELATED RATES.</td>
<td>CHAPTER 2</td>
</tr>
<tr>
<td>2</td>
<td>REVIEW COMPUTER ASSIGNMENT 2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>TEST 2</td>
<td>June 15</td>
</tr>
<tr>
<td>3</td>
<td>EXTREMA ON AN INTERVAL, ROLLE’S THEOREM AND THE MEAN VALUE THEOREM, INCREASING AND DECREASING FUNCTIONS AND THE FIRST DERIVATIVE TEST</td>
<td>CHAPTER 3</td>
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<td>CONCAVITY AND THE SECOND DERIVATIVE TEST, LIMITS AT INFINITY, A SUMMARY OF CURVE SKETCHING.</td>
<td>CHAPTER 3</td>
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</table>
### Additional Information

#### Departmental/Program Information

Program Information for Majors: [https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/mathematics/](https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/mathematics/)


#### Process for Expressing Concerns about the Course

If you have concerns about any aspect of this course, please reach out to your instructor for assistance first. If your instructor is not able to assist you, then you may wish to contact the Department Chair.

#### Mathematics Courses

<table>
<thead>
<tr>
<th>Chair of Math</th>
<th>Mahmoud Basharat</th>
<th>SW Campus</th>
<th>713-718-2438</th>
<th>Stafford Scarcella, N108</th>
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<tr>
<td>Admin. Assistant</td>
<td>Tiffany Pham</td>
<td>SW Campus</td>
<td>713-718-7770</td>
<td>Stafford Scarcella, N108</td>
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<tr>
<td>Admin. Assistant</td>
<td>Christopher Cochran</td>
<td>SW Campus</td>
<td>713-718-2477</td>
<td>Stafford Scarcella, N108</td>
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<tr>
<td>Math Assoc. Chair</td>
<td>Jaime Hernandez</td>
<td>CE Campus</td>
<td>713-718-7772</td>
<td>San Jacinto Building, Rm 369</td>
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<tr>
<td>Math Assoc. Chair</td>
<td>Susan Fife</td>
<td>NW Campus</td>
<td>713-718-7241</td>
<td>Katy Campus Building, Rm 112</td>
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<tr>
<td>Math Assoc. Chair</td>
<td>Hien Nguyen</td>
<td>NE Campus</td>
<td>713-718-2440</td>
<td>Northline, Rm 324</td>
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**Developmental Mathematics Courses**

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<tr>
<td>Chair of Dev. Math</td>
<td>Dorothy A. Muhammad</td>
<td>SE Campus</td>
<td>713-718-5846</td>
<td>Felix Morales Building, Rm 124</td>
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<tr>
<td>Admin. Assistant</td>
<td>Carmen Vasquez</td>
<td>SE Campus</td>
<td>713-718-7056</td>
<td>Felix Morales Building, Rm 124</td>
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<tr>
<td>Dev. Math Assoc. Chair</td>
<td>Jack Hatton</td>
<td>SE Campus</td>
<td>713-718-2434</td>
<td>Felix Morales Building, Rm 124</td>
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<tr>
<td>Dev. Math Assoc. Chair</td>
<td>Adnan Ulhaque</td>
<td>SW Campus</td>
<td>713-718-5463</td>
<td>Felix Morales Building, Rm 124/ Stafford Scarcella, N108</td>
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