

# Houston Community College

# Course Syllabus

#### Calculus I

#### **SYLLABUS FOR MATH 2413**

INSTRUCTOR Fatemeh Salehibakhsh

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*Office Hours M - W* 2:30 – 3:00

F 11:00 - 2:00 (by appointment)

Location H. C. C. West Loop Campus

#### **Textbook**:

Calculus, 9th Edition Ron Larson Bruce H. Edwards

ISBN-10: 0547167024

The textbook has an optional student supplement that contains worked out odd numbered

<u>Catalog Description:</u> Calculus I. An integrated study of differential calculus with analytic geometry including the study of functions, limits, continuity, differentiation, and an introduction to integration. Prerequisite: MATH 2412 or consent of the Department Head. 4 credit (4 lecture).

**Prerequisites:** Math 2412: Pass with a "C" or better, or consent of the Department Head.

**Course Intent:** This course provides the background in mathematics for sciences or further study in mathematics and its applications.

**Audience:** This course is a freshman level mathematics course which requires a background consisting of Math 2412.

|    | Student Learning Outcomes   | Course Objectives  |
|----|---|--|
| 1. | Demonstrate efficiency in algebraic manipulation of elementary and trigonometric functions. | 1.1 Describe the basic concepts of mathematical functions and the various types of functions, which exist.   |
| 2. | Show an understanding of limits and their relationship to the concept of continuity.        | <ul> <li>2.1 Demonstrate knowledge of the concept of the limit of a function at a point and the properties such limits possess.</li> <li>2.2 Demonstrate knowledge of the idea of continuity of a function</li> <li>2.3 Recognize the discontinuity points of certain types</li> </ul> |
|    |   | of elementary functions.   |
| 3. | Differentiate elementary and trigonometric functions.                                       | <ul><li>3.1 Differentiate various types of mathematical functions and know the meaning of the various orders of the derivatives including applications.</li><li>3.2 Differentiate the trigonometric functions with applications.</li></ul>   |
| 4. | Apply calculus techniques to sketch the curves of certain types of elementary functions.    | 4.1 Use calculus to sketch the curves of certain types of elementary functions   |

## Assessment/Make-up and Grading

There are assigned homework problems after every section. It is crucial for you to succeed in this class that you do faithfully your homework every week. There will be quizzes from your home work. The homework grade will not be droped.

There will be 3 major Tests, quizzes, and final exam. One of the lowest grades in your major test will be drop.

3 Major Tests; 60%

Quizzes and Homework 20%

Final Exam 20%

### There will be no make up, since I will drop the lowest grade.

# **Grading policy:**

Your final course grade is based on the following standard HCCS scale.

| Final Average         | $90 \le Avg \le 100$ | $80 \le Avg \le 90$ | $70 \le Avg \le 80$ | $60 \le Avg < 70$ | Avg < 60 |
|-----------------------|----------------------|---------------------|---------------------|-------------------|----------|
| Final Course<br>Grade | A                    | В                   | С                   | D                 | F        |

#### **Student conduct:**

Students should not engage in disruptive activities while in the classroom. Any conduct that is deemed detrimental to the academic atmosphere, such as cell phone use or consistently talking during instructional delivery, will not be tolerated. Any student found guilty of such conduct will be asked to leave the classroom until further notice.

#### **Academic dishonesty:**

All students are required to exercise academic honesty in completion of all tests and assignments. Penalties for academic dishonesty (cheating on a test, collusion on an assignment, etc.) include, but are not limited to, a reduced grade, a "0" on that test or assignment, a "W" in the course, or an "F" in the course. The use of recording devices, including camera phones and tape recorders, is prohibited in all locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Disability Services Office for information.

#### **Students with Disabilities:**

Any student with a documented disability (e.g. physical, learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Disability Support Services Office at this college at the beginning of the semester. To make an appointment, please call 713-718-7910. Professors are authorized to provide only the accommodations requested by the Disability Support Office.

#### **HCC Course Withdrawal Policy**

If you feel that you cannot complete this course, you will need to withdraw from the course prior to the final date of withdrawal, which is given in the college calendar. Before, you withdraw from your course; please take the time to meet with the instructor to discuss why you feel it is necessary to do so. The instructor may be able to provide you with suggestions that would enable you to complete the course. Your success is very important. Beginning in fall 2007, the Texas Legislature passed a law limiting first time entering freshmen to no more than **SIX** total course withdrawals **throughout** their educational career in obtaining a certificate and/or degree.

To help students avoid having to drop/withdraw from any class, HCC has instituted an Early Alert process by which your professor *may* "alert" you and HCC counselors that you might fail a class because of excessive absences and/or poor academic performance. It is your responsibility to visit with your professor or a counselor to learn about what, if any, HCC interventions might be available to assist you – online tutoring, child care, financial aid, job placement, etc. – to stay in class and improve your academic performance.

If you plan on withdrawing from your class, you **MUST** contact a HCC counselor or your professor prior to withdrawing (dropping) the class for approval and this must be done **PRIOR** to the withdrawal deadline to receive a "W" on your transcript. \*\*Final withdrawal deadlines vary each semester and/or depending on class length, please visit the online registration calendars, HCC schedule of classes and catalog, any HCC Registration Office, or any HCC counselor to determine class withdrawal deadlines. **Remember to allow a 24-hour response time when communicating via email and/or telephone with a professor and/or counselor. Do not submit a request to discuss withdrawal options less than a day before the deadline.** If you do not withdraw before the deadline, you will receive the grade that you are making in the class as your final grade.

#### **Repeat Course Fee**

The State of Texas encourages students to complete college without having to repeat failed classes. To increase student success, students who repeat the same course more than twice, are required to pay extra tuition. The purpose of this extra tuition fee is to encourage students to pass their courses and to graduate. Effective fall 2006, HCC charges a higher tuition rate to students registering the third or subsequent time for a course. If you are considering course withdrawal because you are not earning passing grades, confer with your instructor/counselor as early as possible about your study habits, reading and writing homework, test taking skills, attendance, course participation, and opportunities for tutoring or other assistance that might be available.

#### **Classroom Behavior**

It is our shared responsibility to develop and maintain a positive learning environment for everyone. As your instructor, I take this responsibility very seriously and will inform members of the class if their behavior makes it difficult for him/her to carry out this task. As a fellow learner, you are to respect the learning needs of your classmates and assist your instructor achieve this critical goal.

#### **Use of Camera and/or Recording Devices**

As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off your phone and other electronic devices, and will not use these devices in the classroom unless you receive permission from the instructor.

Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodations

#### Course Oout line: Math 2413/ Spring 13

| Jan 14 | Sec p.1        | Homework { 5,10,15,,65}       |
|--------|----------------|-------------------------------|
| Jan 16 | Sec p.2        | H {5,10,,55}                  |
| Jan 21 | Martin Lı      | uther king Holiday            |
| Jan 23 | P.3<br>SEC 1.1 | H { 5,10,,60}<br>H. {3, 6, 9} |
| Jan 28 | 1.2            | H {5,10,,55}                  |
| Jan 30 | 1.3            | H{5,10,,75}                   |

| Feb 4            | 1.4          | H {5,10,,60}                 |
|------------------|--------------|------------------------------|
| Feb 6            | 1.5          | H { 3,6,,48}                 |
| <u>Feb 11</u>    | Test # I     | P , Sections and Chapter one |
| Feb 13           | 2.1          | H {5,10,,85}                 |
|                  | 2.2          | H {3,6,60}                   |
| Feb 18           | Presidents   | Day Holiday                  |
|                  |              |                              |
| Feb 20           | 2.3          | H {3,6,,60}                  |
|                  |              |                              |
| Feb 25           | 2.4          | H {3,6,,66}                  |
|                  | 2.5          | H { 3,6,,48}                 |
|                  |              |                              |
| Feb 27           | 2.6          | H {3,6,,18}                  |
|                  |              | <b>.</b> ,                   |
| Mar 4:           | Test # II, C | hapter 2                     |
|                  | ,            |                              |
| Mar 6            | 3.1          | H { 3,6,,33}                 |
|                  | 3.2          | H {5,10,,45}                 |
| Mar 11 - 1       |              | pring Brake                  |
| 11141            |              | <u> </u>                     |
| Mar 18           | 3.3          | H { 5,10,,45}                |
| 11141 10         | 3.3          | 11 ( 3,10,, 13 )             |
| Mar 20           | 3.4          | H { 5,10,,55}                |
| Mai 20           | 3.4          | 11 { 3,10,,33 }              |
|                  |              |                              |
| Man 25           | 2.5          | H (5.10 70)                  |
| Mar 25           | 3.5          | H { 5,10,,70}                |
|                  |              | • • • • •                    |
| Mar 25<br>Mar 27 | 3.5          | H { 5,10,,70} H {5,10,,45}   |
| Mar 27           | 3.6          | • • • • •                    |
| Mar 27           | 3.6          | H {5,10,,45}                 |

| Apr 3 | 3.9 | H { 5,10,,35} |
|-------|-----|---------------|
|-------|-----|---------------|

# Apr 8: Test # III, Chapters 3

| Apr 10 | 4.1 | Н {3,6,,42}   |
|--------|-----|---------------|
|        | 4.2 | H {5,10,,65}  |
| Apr 15 | 4.3 | H { 5,10,,75} |
|        |     |               |
| Apr 17 | 4.4 | H {3,6,,48}   |
| Apr 22 | 4.5 | H {5,10,,80}  |
|        |     |               |

# Apr 29: Test # IV, Chapters 4

May 1 Final exam review

4.6

Apr 24

May 6 comprehensive Final Exam Test, 11:00 – 1:00

H { 5,10,...,40}