Mathematics
Northeast Pinemont Campus

Math 2413: Calculus I
CRN 13535 –Sum I 2016
Online Class Using Eagle Online 2 and WebAssign
4 hour lecture course / 64 hours per semester/4 of weeks
Textbook: Calculus, Tenth Edition, by Ron Larson & Bruce H. Edwards
ISBN-13: **978-1285057095**

Instructor: Hien Nguyen

Instructor Contact Information: Email: Hient.Nguyen@hccs.edu and Phone: 713-718-2440
Learning Web: http://learning.hccs.edu/faculty/hient.nguyen/math2413

Course Web Site:
Eagle Online 2: www.eo2.hccs.edu . Log in and click on "6163-MATH-2413-Calculus 1-S1-13535"
This site will have course handouts available for downloading. It will be updated with other information as the semester in progress. You are expected to log in AT LEAST THREE TIMES a week to get updated information.

Homework and E-book Web Site:
Homework is assigned on www.webassign.net and e-book is also viewable on this site if purchased. Hardcopy of the text book is optional.

Course Description
Math 2413: Calculus I. An integrated study of differential calculus with analytic geometry including the study of functions, limits, continuity, differentiation, and an introduction to integration.

Prerequisites
MATH 2412 or consent of the Department Chair

Course Goal
This course provides the background in mathematics for sciences or further study in mathematics and its applications

Course Student Learning Outcomes (SLO):
1. Demonstrate efficiency in algebraic manipulation of elementary and trigonometric functions.
2. Show an understanding of limits and their relationship to the concept of continuity.
3. Differentiate elementary and trigonometric functions and apply the derivatives to sketches of curves.
4. Calculate integrals, both approximate and exact, of algebraic and exponential functions, compute the average value of a function over an interval, and apply integrals to solve applied problems, including finding areas of defined regions.

Learning outcomes
Students will:
1.1 Describe the basic concepts of mathematical functions and the various types of functions, which exist.
2.1 Demonstrate knowledge of the concept of the limit of a function at a point and the properties such limits possess.
2.2 Demonstrate knowledge of the idea of continuity of a function

2.3 Recognize the discontinuity points of certain types of elementary functions.

3.1 Differentiate various types of mathematical functions and know the meaning of the various orders of the derivatives including applications.

3.2 Differentiate the trigonometric functions with applications.

3.3   Use calculus to sketch the curves of certain types of elementary functions

4.1 Demonstrate the ability to find antiderivatives involving polynomial and trigonometric functions.

4.2 Demonstrate the ability to evaluate a definite integral using Riemann sums.

4.3 Solve applied problems using definite integrals.

4.4 Find indefinite integrals with a change of variable.

4.5 Find the area of regions under curves using methods which include the Trapezoidal Rule and Simpson's Rule.

4.6 Demonstrate the ability to compute the average value of a function over an interval.

4.7 Demonstrate an understanding of the Fundamental Theorem of Calculus.

TENTATIVE CALENDAR

Week 1: Register for WebAssign Homework 1.1 A Preview of Calculus 1.2 Finding Limits Graphically and Numerically	**Week 3:** **Exam 2** 3.3 Increasing and Decreasing Functions and the First Derivative Test 3.4 Concavity and the Second Derivative Test 3.5 Limits at Infinity
Week 1: 1.3 Evaluating Limits Analytically 1.4 Continuity and One-Sided Limits 1.5 Infinite Limits	**Week 3:** 3.6 A Summary of Curve Sketching 3.7 Optimization Problems 3.8 Newton's Method
Week 1: 2.1 The Derivative and the Tangent Line Problem 2.2 Basic Differentiation Rules and Rates of Change	**Week 4:** 3.9 Differentials **Exam 3** 4.1 Antiderivatives and Indefinite Integration 4.2 Area
Week 2: **Exam 1** 2.3 Product and Quotient Rules and Higher-Order Derivatives 2.4 The Chain Rule	**Week 4:** 4.3 Riemann Sums and Indefinite Integrals 4.4 The Fundamental Theorem of Calculus
Week 2: 2.5 Implicit Differentiation 2.6 Related Rates	**Week 4:** 4.5 Integration by Substitution 4.6 Numerical Integration
Week 2: 3.1 Extrema on an Interval 3.2 Rolle's Theorem and the Mean Value Theorem	**Week 5:** **Exam 4** Final Exam Review & **Comprehensive Final Exam**

How to log in to Eagle Online 2 (EO2)?
Your Eagle Online 2 username/password is the same as your Eagle ID, which is the User ID or W number that you were issued upon admission and the password you created for your HCC Email (issued upon enrollment through the Student System). Your Eagle ID is also used for logging into campus computers, AskOnline tutoring, printing on campus, etc.
If you do know your W number, you can look it up from the Student System Sign In page (see "Forgot My User ID").
For more information on your User ID or your HCC Email password see the Eagle ID web page.

Eagle Online 2 Support
For Eagle Online documentation, tutorials (including movies), phone and chat support, go to the HCC Eagle Online support website.
Phone support: 713-718-2000, options 4, 2, 3 (available 24 x 7)

Browser Issues

Use the latest version of Firefox or Google Chrome.

EO 2: https://eo2.hccs.edu/login/index.php

Student Assignments

Homework/ Lab policy:
Math 2413online has Mandatory WebAssign Homework that must be done from the Web Site (www.webassign.net) by all students. This homework can be done from your home computer, the Math Lab computers on Campus, or the computers in the Open Lab; you can even load it on your tablet or smart phone. To register into the homework for my section, use The Class Key that is Given in **Eagle Online 2** (**EO2**)***.   The WebAssign homework counts 16%.*** **This homework is not optional***.   There is a deadline for completion for each exercise set. Usually they are due on the Exam Dates. Be sure you are aware of these dates; they will affect your homework grade.***

Exam policy:
Five (5) online exams will be given, four major exams will be given during the semester and the comprehensive final exam will be given at the end of the semester and they are given on EO2. (The final exam is also given on EO2, but you must take it at HCC DE testing center). ==**These exams will only be accessible for three day period (Thursday to Saturday, except exam 4) and they will be timed**==. You will **NOT** have time to look up every answer, therefore, you should study the same as you would for an in class exam with limited use of references and limited time available. These exams will consist of questions from the homework, questions from quizzes, questions from practice tests, and other sources. Each student will have a random selection of questions from the database of questions. Therefore, each student will have a unique exam. ==**It is against class policy, and is also an unethical practice, to share the exam questions with any of your classmates or discuss them in any form until AFTER the due dates for each exam. Anyone caught violating this policy will receive a grade of ZERO for that exam.**==

Make-up policy:
There are no make-up exams given for any exam under ANY circumstance. If you miss one, then it will be considered as the lowest one and will be dropped. If you miss the second exam, you will get a ZERO. **Set your own personal calendars and electronic devices in advance to remind you of those dates**. Again: the homework assignments will be on *WebAssign*, but the exams will be on *EO2*. ***The loss of power, computer functionality or internet connection will NOT constitute an excuse for missing or not completing an exam. Technical access and compliance is strictly the student's responsibility***. *Remember: this is a distance education course. It is your responsibility to keep up with the course pace, instructions, policies, due dates, and timetable in general, including the assignment deadlines and exam dates*. Do NOT procrastinate. Doing so will NOT pay off. You will run out of time. Keep up with the course calendar on EO2.

Grading policy:
Your grade for this course will be based on the (4) exams during the semester, homework, and the comprehensive final exam at the end of the semester. There is no extra work given for extra credit. The exam dates are posted below and also will be posted in the calendar in Eagle Online 2.

Grading policy:	Percent:	Locations:	Date:
Exam 1	18%	Eagle Online	06/16 – 06/18/16
Exam 2	18%	Eagle Online	06/23 – 06/25/16
Exam 3	18%	Eagle Online	06/30 – 07/02/16
Exam 4	drop or replace	Eagle Online	07/04 – 07/06/16
Homework	16%	Webassign.net	01/07/2016
Final Exam	30%	Eagle Online	07/07 – 07/09/16

Note: The final exam will be online in Eagle Online, but administered on site at a designated testing center. Homework due date is Jul 9, 2016 on WebAssign. Final exam will be administered from Thursday, July 7th to Saturday, July 9th. Exam 4 can replace one of the major exams, not the final or the homework.

Final Examination:
The final examination is a required, comprehensive exam on Eagle Online. The problems cover all the material covered in the course. This exam will also be **online** on *EO*. However, it must be taken during its scheduled days and times at an HCC proctored testing center, or if outside of the Houston area, at an HCC-approved institutional proctored testing center. The student will **not** be able to take the final exam at *any* location of his/her choice or **without being proctored**. Presentation of a photo ID upon arrival at the testing center is required for identification purposes. Please refer to the section on final exam in our Eagle Online course page for more information about policy, guidelines and instructions for the final exam. **If you failed to take the final exam, you would fail the course with a grade of F. The grade of I for "Incomplete" will not be given if you missed the final exam.**

Students Outside of HCC Service Area:
Students who live or work outside the HCC service area and cannot take exams at HCC testing locations MUST make arrangements at a proctored testing center in their area to take the final exam. *It is a requirement that the final exam for this course be taken at an HCC-approved testing center*. For more

information and to obtain the required Proctor Approval Form, go to the DE Student Handbook and select "Testing Locations and Procedures" or contact DE department at de@hccs.edu for more information.

<u>Student Services</u>

DISTANCE EDUCATION ADVISING AND COUNSELING SERVICES
Much DE student information can be found on the DE Student Services website: de.hccs.edu. Advising or counseling can be accomplished through our online request form AskDECounseling. Counselors and Student Services Associates (SSA) can assist students with admissions, registration, entrance testing requirements, degree planning, transfer issues, and career counseling. In-person, confidential sessions, can also be scheduled to provide brief counseling and community referrals to address personal concerns impacting academic success.

SOCIAL NETWORKING
DE students are encouraged to become a fan of DE on Facebook and follow DE on Twitter. These social networking sites can provide a sense of community for the online learner, as well as up-to-date information and announcements related to HCC and DE.

INTERNATIONAL STUDENTS
Contact the International Student Office at 713-718-8520 if you have questions about your visa status.

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 appropriate HCC Disability Support Service (DSS) Counselor at the beginning of each semester. Faculty is authorized to provide only the accommodations requested by the Disability Support Services Office.

Students who are requesting special testing accommodations must first contact the appropriate (most convenient) DSS office for assistance:
Disability Support Services Offices:
System: 713.718.5165
Central: 713.718.6164 – also for Deaf and Hard of Hearing Services and Students Outside of the HCC District service areas.
Northwest: 713.718.5422
Northeast: 713.718.8420
Southeast: 713.718.7218
Southwest: 713.718.7909

After student accommodation letters have been approved by the DSS office and submitted to DE Counseling for processing, students will receive an email confirmation informing them of the Instructional Support Specialist (ISS) assigned to their professor.

NOTICE FOR STUDENTS OUTSIDE OF HCC SERVICE AREA
Students who live or work outside the HCC service area and cannot take paper exams at one of our HCC testing locations MUST make arrangements for a proctor. Please see the DE Student Services Additional Resources webpage for more information.

VIRTUAL CLASSROOM CONDUCT
As with on-campus classes, all students in HCC Distance Education courses are required to follow all HCC Policies & Procedures, the Student Code of Conduct, the Student Handbook, and relevant sections of the Texas Education Code when interacting and communicating in a virtual classroom with faculty and fellow students. Students who violate these policies and guidelines will be subject to disciplinary action that could include denial of access to course-related email, discussion groups, and chat rooms or being removed from the class.

SEXUAL HARRASSMENT

It is a violation of HCC policy for an employee, agent, or student of the College to engage in sexual harassment as defined in the Equal Employment Opportunity Commission (EEOC) guidelines. Any student who has a complaint concerning this policy has the opportunity to seek resolution of such a complaint in accordance with procedures set forth in the Student Handbook. Report any complaints immediately to College Administration or call the Institutional Equity & Compliance Office 713.718.8271.

HCC Policy Statement: Academic Honesty

A student who is academically dishonest is, by definition, not showing that the coursework has been learned, and that student is claiming an advantage not available to other students. The instructor is responsible for measuring each student's individual achievements and also for ensuring that all students compete on a level playing field. Thus, in our system, the instructor has teaching, grading, and enforcement roles. You are expected to be familiar with the University's Policy on Academic Honesty, found in the catalog. What that means is: If you are charged with an offense, pleading ignorance of the rules will not help you. Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. Penalties and/or disciplinary proceedings may be initiated by College System officials against a student accused of scholastic dishonesty. "Scholastic dishonesty": includes, but is not limited to, cheating on a test, plagiarism, and collusion.

Cheating on a test includes:
- Copying from another students' test paper;
- Using materials not authorized by the person giving the test;
- Collaborating with another student during a test without authorization;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of a test not yet administered;
- Bribing another person to obtain a test that is to be administered.

Plagiarism means the appropriation of another's work and the unacknowledged incorporation of that work in one's own written work offered for credit.

Collusion mean the unauthorized collaboration with another person in preparing written work offered for credit. Possible punishments for academic dishonesty may include a grade of 0 or F in the particular assignment, failure in the course, and/or recommendation for probation or dismissal from the College System. (See the Student Handbook)

HCC Policy Statements
Class Attendance - It is important that you come to class! Attending class regularly is the best way to succeed in this class. Research has shown that the single most important factor in student success is attendance. Simply put, going to class greatly increases your ability to succeed. You are expected to be on time at the beginning of each class period. For complete information regarding Houston Community College's policies on attendance, please refer to the Student Handbook. You are responsible for materials covered during your absences. Class attendance is checked daily. Although it is your responsibility to drop a course for nonattendance, the instructor has the authority to drop you for excessive absences. **You are required to log in to Eagle Online at least three times a week to check out class materials, updated assignment due dates, or any class announcement.**

If you are not attending class, you are not learning the information. 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.

You may decide NOT to come to class for whatever reason. As an adult making the decision not to attend, you do not have to notify the instructor prior to missing a class. However, if this happens too many times, you may suddenly find that you have "lost" the class.

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

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. 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. **The last day to withdraw 06/27/2016.**

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 will charge 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.

Grading Scale

90 - 100 = A
80 - 89 = B
70 - 79 = C
60 - 69 = D
Below 60 = F

Personal Communication Device Policy:

All personal communication devices (any device with communication capabilities including but not limited to cell phones, blackberries, pagers, cameras, palmtop computers, lap tops, 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 (see academic honesty section above).

Student Course Reinstatement Policy:

Students have a responsibility to arrange payment for their classes when they register, either through cash, credit card, financial aid, or the installment plan. Faculty members have a responsibility to check their class rolls regularly, especially during the early weeks of a term, and reconcile the official class roll to ensure that no one is attending class whose name does not appear on it. Students who are dropped from their courses for nonpayment of tuition and fees who request reinstatement after the official date of record (OE Date) can be reinstated by making payment in full and paying an additional \$75 per course reinstatement fee. A student requesting reinstatement should present the registrar with a completed **Enrollment Authorization Form** with the signature of the instructor, department chair,

or dean who should verify that the student has been attending class regularly. Students who are reinstated are responsible for all course policies and procedures, including attendance requirements.

Administration contact information:

College - Level Math Courses

Chair of Math	Jaime Hernandez	SW Campus	713-718-2477	Stafford, Scarcella, N108
Secretary	Tiffany Pham	SW Campus	713-718-7770	Stafford, Scarcella, N108
Math Assoc. Chair	Roderick McBane	CE Campus	713-718-6644	San Jacinto Building, Rm 369
Math Assoc. Chair	Ernest Lowery	NW Campus	713-718-5512	Katy Campus Building, Rm 112
Math Assoc. Chair	Mahmoud Basharat	NE Campus	713-718-2438	Codwell Hall Rm 105

Developmental Math Courses

Chair of Dev. Math	Susan Fife	SE Campus	713-718-7241	Felix Morales Building, Rm 124
Secretary	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Marisol Montemayor	SE Campus	713-718-7153	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Jack Hatton	NE Campus	713-718-2434	Northline Building, Room 321

Note:
For issues related to your class, please first contact your instructor first.
If you need to contact departmental administration, then contact the Associate Chair, Mr. Basharat.
If further administrative contact is necessary, then contact the Department Chair, Dr. Hernandez.

Some Additional Thoughts and Suggestions

- I strongly recommend that you do all of the WebAssign homework on paper, and then enter your answers into the website. Before doing homework, you should read the sections in the book, and lecture notes in Eagle Online. Keep a notebook with all of your homework notes in it. It is extremely important especially for online class.

- In general, in college you are expected to spend at least two hours doing work outside of class for each hour that you are in class. Thus, since our class is 16 hours per week, you should expect to spend at least 32 hours doing work per week for this course.

- Studying is all about efficiency; using your time optimally in order to learn the material as completely as possible. To do this, you will need to know and what you don't know. Once you understand which parts of the material you do know and don't know, you will need to focus on what you don't know until you eventually know it. This means spending a lot of time with material that you don't know which can feel uncomfortable. This is the secret to

studying mathematics: becoming more comfortable with being uncomfortable. We need to spend time on topics we don't yet understand in order to understand them.

- I highly encourage you to talk with your peers and with me about mathematics. It can be fun, invigorating, and useful to discuss mathematics from different vantage points. But don't let someone's beautiful explanation of a homework problem trick you into thinking that you know how to do that problem. Until you can come up with that beautiful explanation on your own, you don't yet know it and thus must continue to learn that topic.

- Technology can be an extremely useful tool. It can help you to gain an intuition for the material, it can help you to check your work, and it can make the material more fun. But again, don't let technology trick you into thinking you understand something that you don't. It's your responsibility to use technology as a tool to help you gain understanding and not as a crutch to aid you in avoiding understanding.

NOTE: THIS SYLLABUS IS SUBJECT TO CHANGE AS NEEDED TO MEET THE OBJECTIVES OF THE COURSE OR TO AID IN COURSE ADMINISTRATION AT THE DISCRETION OF INSTRUCTOR. IT IS NOT ANTICIPATED THAT THERE WILL BE ANY SUBSTANTIVE CHANGES.

After reading this syllabus, please send me an email to confirm that you have read, comprehended it.

Let's have a wonderful semester!!!