



## **SOUTHWEST COLLEGE** *Department of Mathematics*

### **MATH 2415: Calculus III**

SPRING 2017 / DISTANCE EDUCATION / CRN 16182

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INSTRUCTOR:	Dr. Bazargan
CONTACT INFORMATION:	<a href="mailto:Mohammad.bazargan@hccs.edu">Mohammad.bazargan@hccs.edu</a>

**WebAssign:** [www.webassign.net](http://www.webassign.net)

**Class Key:** hccs 4769 2166

**WebAssign is free for 12 days. You can decide on the selection of the options that are available during this time. (when you buy WebAssign you will have access to ebook).**

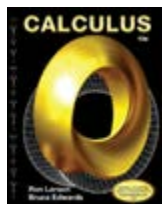
#### **Office location and hours:**

Please feel free to contact me concerning any problems that you are experiencing in this course. Your performance in my class is very important to me. I am available to hear your concerns and just to discuss course topics. Email me for an appointment at Stafford Campus.

**Catalog Description:** Calculus III. A survey of advanced topics in calculus including vectors and vector-valued functions, partial differentiation, Lagrange multipliers, multiple integrals, Jacobians, divergence and Stokes' theorems. Prerequisite: MATH 2414. 4 credit (4 lecture).

**Audience:** This course is intended basically for students who are pursuing degrees in mathematical sciences and engineering and who are required by the nature of their respective curricula to enroll in the 3 -semester calculus series. Students enrolled in other areas not requiring calculus may wish to take this course as an elective to broaden their mathematical background provided the necessary prerequisites have been met.

Textbook:



Calculus—10<sup>th</sup> edition  
Larson and Edwards  
Published by Cengage Learning  
[www.webassign.net](http://www.webassign.net)

When you buy the WebAssign code you will have access to the e-book. Therefore you do not need to buy the book unless you want to have a paper book.

Reference: Thomas' Calculus, Published by Pearson.

Student Learning Outcomes	Course Objectives
1. Understand vector functions, operations with them (including differentiation and integration), and their application to motion in space	1.1 Apply calculus to vectors and vector-valued functions
2. Understand real functions of several variables, operations with them (including differentiation and integration), optimization of multivariable functions, and their application to physical problems	2.1 Describe and use partial differentiation 2.2 Apply Lagrange multipliers to solve problems.
3. Compute multiple integrals in Cartesian, polar, cylindrical, and spherical coordinates, and apply multiple integrals to physical problems;	3.1 Solve multiple integrals. 3.2 Find the Jacobian using determinant notation.
4. Solve problems using the Fundamental Theorem of Line Integrals, Green's Theorem, the Divergence Theorem, and Stokes' Theorem.	4.1 Apply Green's theorem to evaluate line integrals around a bounded area. 4.2 Apply the Divergence theorem and Stokes' theorem to specific problems.

### Instructional Methods:

As an instructor, I want my students to be successful. I feel that it is my responsibility to provide you with knowledge concerning the field of mathematics, organizing and monitoring the success of each student with homework that allows you to connect the information that you learn in this course to applications in other course work and life in the real world.

As a student wanting to learn about the field of mathematics, it is your responsibility to read the textbook, submit assignments on the due dates, study for the exams, participate in classroom activities, attend class, and enjoy yourself while experiencing the real world of mathematics.

### Testing policy:

EXAMS ARE ONLINE ON CANVAS (There are 4 exams).

HOMEWORK IS ONLINE ON WEBASSIGN.

FINAL IS ONLINE-ONSITE ON CANVAS.

### Grading policy:

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

A: 90-100, B: 80-89, C: 70-79. D: 60-69, F: 0-59

Course Average = [ (sum of the best three of four exams) + WebAssign + 2(Final) ] / 6

If final exam grade is less than 40, then it will be tripled and the above sum will be divided by 7.

### **Make-up policy:**

Make-up exam will not be given in this course for any reason. However, the compulsory final exam will be replaced for only one missed exam. The other missed exams will receive zero.

### **Homework policy:**

All homework must be completed online using WebAssign. ([www.webassign.net](http://www.webassign.net)) The sections corresponding to each exam should be completed **BEFORE** taking the exam.

**Calculators:** Calculators that do not have integrating capability may be used on exams. On final exam only scientific calculators are allowed.

### **Exams Schedule:**

	<b>Chapters Covered</b>	<b>Date</b>
Exam #1	Chapters Eleven and Twelve.	Fr 2/10/17 - Su 2/12/17 online
Exam #2	Chapter Thirteen.	Fr 3/10/17 - Su 3/12/17 online
Exam #3	Chapter Fourteen.	Fr 4/7/17 - Su 4/9/17 online
Exam #4	Chapter Fifteen.	Fr 4/28/17 - Su 4/30/17 online
Final Exam	Comprehensive	Thu 5/4/17 - Sa 5/6/17 online-onsite (See the “start here module” on Canvas)

### **DE STUDENT SERVICES:**

The Distance Education Student Handbook contains policies and procedures unique to the DE student. It is the student's responsibility to be familiar with the handbook's contents and part of the mandatory orientation. The handbook contains valuable information, answers, and resources, such as DE contacts, policies and procedures (how to drop, attendance requirements, etc.), student services (ADA, financial aid, degree planning, etc.), course information, testing procedures, technical support, and academic calendars. Refer to the DE Student Handbook by visiting this link: <http://de.hccs.edu/de/de-student-handbook>

Student services Web Site: <http://de.hccs.edu/student-services/>

Use the latest version of Firefox.

For Browser Tune-up go to:

[http://download.enet.com/windows/browsers/?tag=rb\\_content:main](http://download.enet.com/windows/browsers/?tag=rb_content:main) , to install

Windows, Adobe Reader, Media player, Quick Time, etc.

## **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 College'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 that has not been 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 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.

**Last day to drop a course, for the regular term, is Monday, 4/3/2017 by 4:30pm.**

### **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.

### **HCC Policy Statement - ADA**

#### Services to 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 Services Office at his or her respective college at the beginning of each semester. Faculty members are authorized to provide only the accommodations requested by the Disability Support Services Office. Persons needing accommodations due to a documented disability should contact the ADA counselor for their college as soon as possible. For questions, please contact Donna Price at 713.718.5165. To visit the ADA Web site, please visit [www.hccs.edu](http://www.hccs.edu) then click Future students, scroll down the page and click on the words Disability Information.

### **HCC Policy Statement: Title IX**

HCC is committed to provide a learning and working environment that is free from discrimination on the basis of sex which includes all forms of sexual misconduct. Title IX of the Education Amendments of 1972 requires that when a complaint is filed, a prompt and thorough investigation is initiated. Complaints may be filed with the HCC Title IX Coordinator available at 713 718-8271 or email at [oie@hccs.edu](mailto:oie@hccs.edu).

Title IX of the Education Amendments of 1972 requires that institutions have policies and procedures that protect students' rights with regard to sex/gender discrimination.

Information regarding these rights are on the HCC website under Students-Anti-discrimination. Students who are pregnant and require accommodations should contact any of the ADA Counselors for assistance.

It is important that every student understands and conforms to respectful behavior while at HCC.

Sexual misconduct is not condoned and will be addressed promptly. Know your rights and how to avoid these difficult situations.

Log in to [www.edurisksolutions.org](http://www.edurisksolutions.org). Sign in using your HCC student email account, then go to the button at the top right that says Login and enter your student number.

## FINAL GRADE OF FX

Students who stop attending class and do not withdraw themselves prior to the withdrawal deadline may either be dropped by their professor for excessive absences or be assigned the final grade of "FX" at the end of the semester. Students who stop attending classes will receive a grade of "FX", compared to an earned grade of "F" which is due to poor performance. Logging into a DE course without active participation is seen as non-attending.

Please note that HCC will not disperse financial aid funding for students who have never attended class. Students who receive financial aid but fail to attend class will be reported to the Department of Education and may have to pay back their aid. A grade of "FX" is treated exactly the same as a grade of "F" in terms of GPA, probation, suspension, and satisfactory academic progress

### 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.

### Resources:

Free tutoring is available in most campuses. The Learning Emporium at the Central Campus is available to all HCC students for tutoring in Mathematics, among other subjects. You may visit them in SJAC 384 or contact them at 713-714-6356 Additional help is also available through Student Support Services. Students can get free assistance, 24 hours a day, 7 days a week, in Math, English and other subjects, at [www.hccs.askonline.net](http://www.hccs.askonline.net). Typically, posted questions are answered by an HCC tutor or faculty within 24 hours (usually under 6 hours). There are also several online math resources that you can find with an internet search. You may also find information on the Learning Web site accessible through your specific HCCS campus website.

### EGLS3 -- Evaluation for Greater Learning Student Survey System

At Houston Community College, professors believe that thoughtful student feedback is necessary to improve teaching and learning. During a designated time, you will be asked to answer a short online survey of research-based questions related to instruction. The anonymous results of the survey will be made available to your professors and division chairs for continual improvement of instruction. Look for the survey as part of the Houston Community College Student System online near the end of the term. Visit [www.hccs.edu/EGLS3](http://www.hccs.edu/EGLS3) for more information.

### 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	Clen Vance	CE Campus	713-718-6421	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 Montemayo	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

For issues related to your class, please first contact your instructor.

If you need to contact departmental administration, then contact the appropriate Associate Chair.

If further administrative contact is necessary, then contact the appropriate Department Chair.