HOUSTON COMMUNITY COLLEGE

Division of Mathematics
Mathematics Department
https://learning.hccs.edu/programs/mathematics

Math 2414: Calculus II | Lecture | #12454

Fall 2019 | 16 Weeks (8.26.2019-12.15.2019)
In-Person | Katy Campus Rm. 226 | TR 2 – 3:50 pm
4 Credit Hours | 64 hours per semester
WebAssign Class Key: **hccs 3606 1926**

Instructor Contact Information

Instructor: Kimber Kaushik
Office: Katy, Room 359 H
HCC Email: kimber.kaushik@hccs.edu
Office Phone: 713-718-5733
Office Hours: Mon & Wed: 11 am – 12:30 pm
Tue & Thu: 4 – 5 pm (Rm. 108)

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 the concerns and just to discuss course topics.

Instructor's Preferred Method of Contact

You are welcome to talk to me right before or after class, or you can visit or call me during my office hours. Otherwise, email me or send a message to me via Eagle Online Canvas.

What's Exciting About This Course

This class should increase your ability to think critically and to recognize patterns, two skills which will help you in your future STEM classes and in a STEM career.

My Personal Welcome

Welcome to class! My goal is to show you the beauty of calculus and to demonstrate how satisfying problem solving can be. I also hope to give you a good foundation for your future STEM courses.

Prerequisite

Prerequisite: Math 2413: Pass with a "C" or better. If you have enrolled in this course having satisfied these prerequisites, you have a higher chance of success than students who have not done so. Please carefully read and consider the repeater policy in the HCCS Student Handbook.

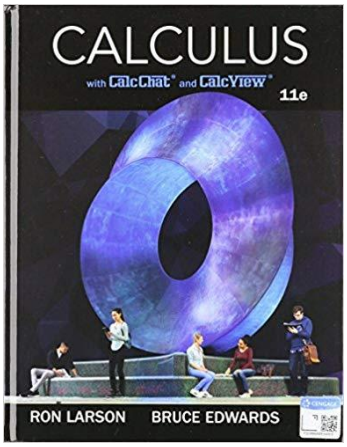
Canvas Learning Management System

This section of MATH 2414 will use Canvas (https://eagleonline.hccs.edu) to supplement in-class assignments, exams, and activities. I will post all your grades in Canvas; you can see them by clicking the Grades link.

HCCS Open Lab locations may be used to access the Internet and Canvas. **USE FIREFOX OR CHROME AS THE INTERNET BROWSER**.

Instructional Materials

Textbook Information



The textbook listed below is ***required*** for this course.
Textbook: Calculus, 11th Edition, by Ron Larson & Bruce H. Edwards, ISBN-13: 978-1337275347

Textbook Options for: Calculus, 11th Edition, by Ron Larson & Bruce H. Edwards
Loose-leaf Textbook + WebAssign Multi-Term Printed Access Card: Edwards ISBN-13: 978-1337604741
Hardbound Textbook + WebAssign Multi-Term Printed Access Card: Edwards ISBN-13: 978-1337604758
Hardbound Textbook: ISBN-13: 978-1337275347
WebAssign Multi-Term Printed Access Card: ISBN-13: 978-1285858265

Temporary Free Access to E-Book

For temporary free access to WebAssign and the online eBook, go to http://webassign.net and register using the Class Key: hccs 3606 1926.

Other Instructional Resources

Tutoring

HCC provides free, confidential, and convenient academic support, including writing critiques, to HCC students in an online environment and on campus. Tutoring is provided by HCC personnel in order to ensure that it is contextual and appropriate. Visit the HCC Tutoring Services website for services provided.

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 http://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 http://www.hccs.edu/resources-for/current-students/supplemental-instruction/.

Course Overview

This course provides a detailed study of the logarithmic, exponential, and other transcendental functions, integration techniques with applications, L'Hopital's rule, an introduction to infinite series and power series, as well as Taylor polynomials and approximations, plane curves, parametric equations, and polar coordinates.

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.

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 2414, the student will be able to:

1. Explain and model the arithmetic operations for whole numbers and integers.
2. Use the concepts of definite integrals to solve problems involving area, volume, work, and other physical applications.
3. Use substitution, integration by parts, trigonometric substitution, partial fractions, and tables of anti-derivatives to evaluate definite and indefinite integrals.
4. Define an improper integral.
5. Apply the concepts of limits, convergence, and divergence to evaluate some classes of improper integrals.
6. Demonstrate the correct use of L'Hopital's rule and various techniques for solving improper integrals
7. Determine convergence or divergence of sequences and series.
8. Use Taylor and MacLaurin series to represent functions.
9. Use Taylor or MacLaurin series to integrate functions not integrable by conventional methods.
10. Use the concept of polar coordinates to find areas, lengths of curves, and representations of conic sections.

Learning Objectives

Upon completion of MATH 2414, the student will be able to:

1. Define and use transcendental functions including logarithmic and exponential functions.
2. Compute derivatives and antiderivatives involving transcendental functions.
3. Apply integration to various applications.
4. Show various integration techniques.
5. Show correct usage of L'Hôpital's rule.
6. Describe and solve improper integrals.
7. Recognize and use infinite series.
8. Recognize and apply Taylor series to various problems.
9. Demonstrate knowledge of plane curves and polar coordinates.

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.

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 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

Assignments, Exams, and Activities

Tests

You will take three tests throughout the semester. Test One will cover Chapters 5 and 7 (Sections 5.5 – 5.8 & 7.1 – 7.3). Test Two will cover Chapter 8 (Sections 8.1 – 8.5 & 8.8). Test Three will cover Chapter 9 (all sections). I'll replace your lowest test score with the grade you make on the final exam, if that helps you.

Homework

You will be assigned homework from the course textbook for each section we study. Homework will be due one week after I finish teaching the corresponding section.

Final Exam

All students will be required to take a cumulative Final Exam. The Final Exam will cover all material discussed in Chapters 5, 7, 8 & 9, as well as the material discussed in Chapter 10 (Sections 10.2 – 10.6, except Kepler's Laws). The final exam takes place on Thursday, December 12, 2019 from 2 – 4 pm in the normal classroom.

Grading Formula

You can view all your grades in Eagle Online Canvas (click the Grades link).

Your course grade will be determined as follows:

Test One	20% of your grade
Test Two	20% of your grade
Test Three	20% of your grade
Homework	15% of your grade
Final Exam	25% of your grade

Grade	Overall Percentage
A	90% +
B	80%-89%
C	70%- 79%
D	60%-69%
F	<60%

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.

HCC Grading Scale can be found on this site under Academic Information:
http://www.hccs.edu/resources-for/current-students/student-handbook/

Course Calendar (subject to change with notice)

Week	Dates	Topic
1	08/27 & 08/29	Syllabus Brief review of Calculus I topics Section 5.5
2	09/03 & 09/05	Sections 5.6 - 5.8
3	09/10 & 09/12	Sections 5.8, 5.9 & 7.1
4	09/17 & 09/19	Sections 7.1 - 7.3, 8.1
5	09/24 & 09/26	Section 8.1 & 8.2 Test One (Chapters 5 & 7): Thursday, September 26
6	10/01 & 10/03	Sections 8.3 & 8.4
7	10/08 & 10/10	Sections 8.5 & 8.8
8	10/15 & 10/17	Sections 9.1 & 9.2 Test Two (Chapter 8): Thursday, October 17
9	10/22 & 10/24	Sections 9.3 - 9.5
10	10/29 & 10/30	Sections 9.6 & 9.7
11	11/05 & 11/07	Section 9.8 No class on Thursday, November 7 (Study Section 8.6 on your own)
12	11/12 & 11/14	Sections 9.9 & 9.10
13	11/19 & 11/21	Sections 10.2 & 10.3 Test Three (Chapter 9): Thursday, November 21
14	11/26 & 11/28	Section 10.4 Thanksgiving Holiday: Thursday, November 28
15	12/03 & 12/05	Section 7.4, 10.5 & 10.6
16	12/10 & 12/12	No class on Tuesday, December 10 Final Exam (Chapters 5 & 7 - 10): Thursday, December 12

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.

Instructor's Practices and Procedures

Missed Assignments

There are no make up tests. Instead, I will replace a single missed test grade with the grade you make on the final exam. Late homework will be accepted, but a penalty may be assessed.

Academic Integrity

All forms of academic dishonesty including, but not limited to cheating, plagiarism, and collusion are serious offenses. Possible consequences for academic dishonesty include a grade a 0 or F in the particular assignment, failure in the course, and/or recommendations for probation or dismissal from the institution.

Here's the link to the HCC information about academic integrity (Scholastic Dishonesty and Violation of Academic Scholastic Dishonesty and Grievance): http://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-procedures/

Attendance Procedures

If you miss more than four classes before the Official Day of Record, Monday, September 9, 2019, you will be marked as "Never Attended" and will automatically be dropped from the class.

If you miss more than four classes before the **last day to withdraw from class, Friday, November 1, 2019**, I may withdraw you from class after September 9. You can also withdraw yourself from class as long as you do so by November 1.

Student Conduct

Please treat everyone in class kindly and with respect.

Electronic Devices

You may use a non-graphing, single line scientific calculator during class and on homework.

The use of electronic devices by students in the classroom is up to the discretion of the instructor. Any use of such devices for the purposes other than student learning is strictly prohibited unless authorized as an appropriate ADA accommodation from the ADA Counselor.

Mathematics Program Information

- HCC Math Student Organizations: Mu Alpha Theta: Application: https://www.hccs.edu/resources-for/current-students/stem--science-technology-engineering--mathematics/stem-clubs/mu-alpha-theta-application/

HCC Policies

Here's the link to the HCC Student Handbook http://www.hccs.edu/resources-for/current-students/student-handbook/ 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

EGLS^3

The EGLS^3 (Evaluation for Greater Learning Student Survey System) 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. EGLS^3 surveys are only available for the Fall and Spring semesters. -EGLS3 surveys are not offered during the Summer semester due to logistical constraints.
http://www.hccs.edu/resources-for/current-students/egls3-evaluate-your-professors/

Campus Carry Link

Here's the link to the HCC information about Campus Carry:
http://www.hccs.edu/departments/police/campus-carry/

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.

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.

Office of Institutional Equity

Use the link below to access the HCC Office of Institutional Equity, Inclusion, and Engagement (http://www.hccs.edu/departments/institutional-equity/)

disAbility 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 http://www.hccs.edu/support-services/disability-services/

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
http://www.hccs.edu/departments/institutional-equity/title-ix-know-your-rights/

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.

https://www.hccs.edu/about-hcc/procedures/student-rights-policies--procedures/student-complaints/speak-with-the-dean-of-students/

Department Chair Contact Information

College - Level Math Courses

Chair of Math	Susan Fife	SW Campus	713-718-7241	Stafford, Scarcella, N108
- Admin. Assistant	Tiffany Pham	SW Campus	713-718-7770	Stafford, Scarcella, N108
- Admin. Assistant	Christopher Cochran	SW Campus	713-718-2477	Stafford, Scarcella, N108
Math Assoc. Chair	Jaime Hernandez	CE Campus	713-718-7772	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	Jack Hatton	SE Campus	713-718-2434	Felix Morales Building, Rm 124
- Admin. Assistant	Carmen Vasquez	SE Campus	713-718-7056	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Hien Nguyen	SE Campus	713-718-2440	Felix Morales Building, Rm 124
Dev. Math Assoc. Chair	Adnan Ulhaque	SW Campus	713-718-5463	Stafford, Learning Hub, Room 208
Technical Support Specialist	Douglas Bump	SE Campus	713-718-7317	Angela Morales Building, Rm 101

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.