

MATH 19 J: FUNDAMENTALS OF CALCULUS 1

Spring 2023

Instructor:	Jesse Franklin	Time:	TR 1 : 15 pm – – 2 : 30 pm
Email:	jesse.franklin@uvm.edu	Place:	Jefford's Hall 110

1. COURSE NUMBER, TITLE, CREDIT HOURS

Math 19 J, Fundamentals of Calculus 1, 3.00.

2. MEETING TIME, MEETING PATTERN, LOCATION

1 : 15 – 2 : 30pm, TR (Tuesday, Thursday), Jefford's Hall (JEFFRD) 110

3. INSTRUCTOR NAME, CONTACT INFORMATION, OFFICE HOURS

Jesse Franklin
jesse.franklin@uvm.edu
Office: Innovation E324
Office Hours: Tuesday/Thursday 3 : 30 – 4 : 30pm and by appointment

4. COURSE COORDINATOR NAME, CONTACT INFORMATION, OFFICE HOURS

Course Coordinator: Nichole Caisse, Nichole.Caisse@uvm.edu, N/A

5. TUTORS AND SUPPORT INFORMATION

Math Help Sessions: 4 : 45 – 6 : 45pm, Jan 23–May 5, Monday-Thursday, Location: Votey 303

6. TECHNICAL SUPPORT FOR STUDENTS

Students, please read this technology check list to make sure you are ready for classes. <https://www.uvm.edu/it/kb/student-technology-resources/> Students should contact the Helpline (802-656-2604) for support with technical issues.

7. PRE-REQUISITES AND/OR CO-REQUISITES

MATH 009 or MATH 010 or sufficiently strong background in secondary school algebra and geometry; Open to Degree and PACE students.

8. GENERAL EDUCATION (E.G., D1) OR OTHER REQUIREMENTS SATISFIED

Quantitative Reasoning

9. NOTES ON COURSES THAT MAY DUPLICATE CREDIT

Math 021 is another version of Calculus 1 offered at UVM.

10. COURSE DESCRIPTION

An overview of the course:

10.1. Purpose of the Course.

- (1) Practice mathematical reasoning for given informational needs and use it correctly and accurately.
- (2) Develop an understanding of the fundamental aspects of differential calculus including functions, limits, derivatives and integrals.
- (3) Recognize and apply the ideas of calculus in other areas of study.

10.2. main concepts, knowledge areas, topics covered and/or questions explored in the class. The main concepts in this course are limits, derivatives and integrals. We use these tools to refine our understanding of functions, and answer questions regarding the slopes of functions, optimization problems, and areas under curves.

10.3. how the course topics relate to each other. Limits serve like a glue to enhance our understanding of functions, allowing us to differentiate them (i.e. find their slopes) and to integrate them (i.e. find the area which they cut out). The process of integration relies on the techniques we develop to differentiate functions.

10.4. how the course will be structured (e.g., lectures, labs, group work, etc.) There will be two lectures a week, with weekly in-class, collaborative activities on as many Thursdays as possible.

11. COURSE LEARNING OBJECTIVES

- (1) Determine the appropriate mathematical approach for a given informational need and use it correctly and accurately.
- (2) Demonstrate an understanding of the fundamental aspects of differential calculus including functions, limits, derivatives and integrals.
- (3) Recognize and apply the ideas of calculus in economics, business, physics, natural resources and other areas of study.

12. MODALITY DESCRIPTION/OUTLINE

This class is held in person.

13. REQUIRED COURSE MATERIALS

Students struggling to pay for or obtain course materials are encouraged to contact KC Williams, Assistant Dean of Equity, Belonging, and Student Engagement (kc.williams@uvm.edu) and/or UVM Student Financial Services.

Textbook: *Calculus for Buisness, Economics, Life Sciences, and Social Sciences*, fourteenth edition, by Barnett, Ziegler, Byleen and Stocker, packaged with a MyMathLab Access Code.

You must have access to MyMathLab to complete the homework, and MyMathLab access comes with an e-text. Please note that you will want the MyMathLab access code that comes packaged with the textbook. You may wish to **ONLY** purchase the MyMathLab access codewhich includes an e-book or electronic version of the textbook.

You do not need a paper copy of the book if you do not want it.

The class will follow the text closely.

MyMathLab Course Code: Use the Pearson class key **franklin46405** to register for this course specifically. Please let me know if you need help.

Letter	Grade	Range	Letter	Grade	Range	Letter	Grade	Range	Letter	Grade	Range
<i>A</i> +	...	≥ 98%	<i>B</i> +	...	[88, 90)	<i>C</i> +	...	[78, 80)	<i>D</i> +	...	[68, 70)
<i>A</i>	...	[94, 98)%	<i>B</i>	...	[84, 88)	<i>C</i>	...	[74, 78)	<i>D</i>	...	[64, 68)
<i>A</i> −	...	[90, 94)%	<i>B</i> −	...	[80, 84)	<i>C</i> −	...	[70, 74)	<i>D</i> −	...	[60, 64)
									<i>F</i>	...	< 60%

19. ASSESSMENTS (GRADED WORK)

- Homework will be online on Pearson's MyMathLab. There will be one assignment per section of the textbook covered. Homework will be due before the relevant exams.
- Quizzes are my name for the in-class collaborative activities we will conduct on Thursdays. These will be submitted as .pdf files on Blackboard and are due before the relevant exams.
- Exams are standard closed book exams. You do not need a calculator to complete the exams but you are allowed to use one if you wish, so long as you still show your work.

19.1. An explanation of the exam structure and policies. There will be four exams, one for each chapter covered. All exams are closed notebook. The dates and topics are in the calendar, in this syllabus, and will be announced in class. Students are required to take all quizzes and exams at the appointed times unless arrangements are made with the instructor prior to the exam.

19.2. A summary of due dates for assignments and exam dates. Homework assignments are due on the following dates:

assignment	due date
HW 2.1	1/23/2023
HW 2.2	1/30/2023
HW 2.3	2/6/2023
HW 2.4	2/6/2023
HW 2.5	2/6/2023
HW 3.2	2/13/2023
HW 3.3	2/20/2023
HW 3.4	2/27/2023
HW 3.5	2/27/2023
HW 3.6	2/27/2023
HW 4.1	3/27/2023
HW 4.2	3/27/2023
HW 4.4	4/5/2023
HW 4.5	4/5/2023
HW 4.6	4/5/2023
HW 5.1	4/17/2023
HW 5.2	4/24/2023
HW 5.4	5/3/2023
HW 5.5	5/3/2023

and the exam schedule is:

Exam 1 : Chapter 2 exam is on 2/7/2023

Exam 2 : Chapter 3 exam is on 3/2/2023

Exam 3 : Chapter 4 exam is on 4/6/2023

Final Exam : Chapter 5 exam is on 5/4/2023

20. RECORDING CLASS SESSIONS

Our class sessions may/will be audio-visually recorded for students in the class to refer back to, and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the chat feature, which allows students to type questions and comments live.

21. RESEARCH AND CITATION HELP

For help selecting research topics, finding information, citing sources, and more, ask a librarian. The UVM Libraries are eager to help. You may ask questions by phone, e-mail, chat, or text, or make an appointment for an individual consultation with a librarian.

Howe Library: <https://library.uvm.edu/askhowe>

Dana Medical Library: <https://dana.uvm.edu/help/ask>

Silver Special Collections Library: <https://specialcollections.uvm.edu/help/ask>

22. COURSE EVALUATION

All students are welcome to complete an evaluation of the course at its conclusion. The evaluations will be anonymous and confidential, and the information gained, including constructive criticisms, will be used to improve the course.

23. GENERAL STATEMENT REGARDING POTENTIAL CHANGES DURING THE SEMESTER

The University of Vermont reserves the right to make changes in the course offerings, mode of delivery, degree requirements, charges, regulations, and procedures contained herein as educational, financial, and health, safety, and welfare considerations require, or as necessary to be compliant with governmental, accreditation, or public health directives.

24. INTELLECTUAL PROPERTY STATEMENT/PROHIBITION ON SHARING ACADEMIC MATERIALS

Students are prohibited from publicly sharing or selling academic materials that they did not author (for example: class syllabus, outlines or class presentations authored by the professor, practice questions, text from the textbook or other copyrighted class materials, etc.); and students are prohibited from sharing assessments (for example homework or a take-home examination). Violations will be handled under UVMs Intellectual Property policy and Code of Academic Integrity.

25. STUDENT LEARNING ACCOMMODATIONS

In keeping with University policy, any student with a documented disability interested in utilizing ADA accommodations should contact Student Accessibility Services (SAS), the office of Disability Services on campus for students. SAS works with students and faculty in an interactive process to explore reasonable and appropriate accommodations, which are communicated to faculty in an accommodation letter. All students are strongly recommended to discuss with their faculty the accommodations they plan to use in each course. Faculty who receive Letters of Accommodation with Disability Related Flexible accommodations will need to fill out the Disability Related Flexibility Agreement. Any questions from faculty or students on the agreement should be directed to the SAS specialist who is indicated on the letter.

Contact SAS:

A170 Living/Learning Center

802-656-7753

access@uvm.edu

www.uvm.edu/access

26. RELIGIOUS HOLIDAYS

Students have the right to practice the religion of their choice. If you need to miss class to observe a religious holiday, please submit the dates of your absence to me in writing by the end of the second full week of classes. You will be permitted to make up work within a mutually agreed-upon time. <https://www.uvm.edu/registrar/religious-holidays>

27. ACADEMIC INTEGRITY

This policy addresses plagiarism, fabrication, collusion, and cheating: <https://www.uvm.edu/policies/student/acadintegrity.pdf>

28. GRADE APPEALS

If you would like to contest a grade, please follow the procedures outlined in this policy: <https://www.uvm.edu/policies/student/gradeappeals.pdf>

29. GRADING

For information on grading and GPA calculation, go to <https://www.uvm.edu/registrar/grades>

30. CODE OF STUDENT CONDUCT

<http://www.uvm.edu/policies/student/studentcode.pdf>

FERPA Rights Disclosure: The purpose of this policy is to communicate the rights of students regarding access to, and privacy of their student educational records as provided for in the Family Educational Rights and Privacy Act (FERPA) of 1974. <http://catalogue.uvm.edu/undergraduate/academicinfo/ferparightsdisclosure/>

31. PROMOTING HEALTH AND SAFETY

The University of Vermont's number one priority is to support a healthy and safe community: Center for Health and Wellbeing: <https://www.uvm.edu/health>
Counseling and Psychiatry Services (CAPS) Phone: (802) 656-3340
C.A.R.E. If you are concerned about a UVM community member or are concerned about a specific event, we encourage you to contact the Dean of Students Office (802-656-3380). If you would like to remain anonymous, you can report your concerns online by visiting the Dean of Students website at <https://www.uvm.edu/studentaffairs>

Food Insecurity The UVM Center for Health and Wellbeing provides several on- and off-campus resources for students struggling with food insecurity: <https://www.uvm.edu/health/food-insecurity-uvm>

32. FINAL EXAM POLICY

The University final exam policy outlines expectations during final exams and explains timing and process of examination period. <https://www.uvm.edu/registrar/final-exams>