

CENTRAL CONNECTICUT STATE UNIVERSITY
DEPARTMENT OF MATHEMATICAL SCIENCES
SPRING 2025

COURSE: MATH 152 (03)
TITLE: CALCULUS I
PREREQUISITES: MATH 115 and MATH 116 (formerly MATH 121), or MATH 119 (C- or higher), or Placement Exam
COURSE DESCRIPTION: This course covers the differential calculus of the algebraic, trigonometric, exponential, and logarithmic functions, concluding with the definite integral and the fundamental theorem of calculus. The emphasis is on understanding the basic concepts of functions, limits, continuity, derivatives, antiderivatives, and definite integrals and their applications.
INSTRUCTOR: Dr. Ivan S. Gotchev
EMAIL: gotchevi@ccsu.edu
OFFICE: MW111
WEB PAGE: <https://www.ccsu.edu/person/ivan-s-gotchev> – on this page you can find as PDF files all handouts for this class.
OFFICE HOURS: MWF 8:50 am – 9:20 am, 1:30 pm – 2:40 pm, or by appointment
TEXTBOOK: OpenStax Calculus Volume 1. Download for free at <https://openstax.org/details/books/calculus-volume-1>
COVEREGE: Chapters 1, 2, 3, 4, 5 and 6.1 will be covered
SCHEDULE OF CLASSES: MWF 9:25 am – 10:35 am in EDB 111
ATTENDANCE: The material covered by this course will be discussed and explained clearly in class and proper examples will be solved. Therefore, regular class attendance is very important.
EXAMINATIONS: There will be four tests during the semester, online homework using Edfinity.com, four take-home exams, and a cumulative final exam on Monday, May 12, from 8:00 am to 10:00 pm in EDB 111. The examination problems will be like those solved in class, included in the take-home exams, or given as online homework or suggested homework assignments.
HOMEWORK: The best way to learn mathematics is to solve as many problems as possible. In the list below are given suggested homework assignments that I advise you to solve for practice before solving your take-home exam problems and after you read your class notes, you read the part of the book related to these notes, and you finish your online homework. You do not need to submit them for grading.
GRADING:
FOUR TESTS 40%
ONLINE HOMEWORK 10%
FOUR TAKE-HOME EXAMS 30%
FINAL EXAM 20%
If you score 93% or more your final grade will be an A, 90% or more but less than 93% - A-, 87% or more but less than 90% - B+, 83% or more but less than 87% - B, and so on. Less than 60% is F.

Suggested Homework Assignments and Tentative Timetable

Date	Section	Suggested Homework Assignments
1/22	1.1	Syllabus; Introduction: Real Numbers
1/24	1.1	All odd numbers from 1 to 47
1/27	1.1	
	1.2	All odd numbers from 59 to 101
1/29	1.2	
1/31	1.3	All odd numbers from 113 to 171
2/3	1.4	All odd numbers from 183 to 215
2/5	1.5	All odd numbers from 229 to 297
2/7	2.1	All odd numbers from 1 to 9
	2.2	All odd numbers from 47 to 79
2/10	2.2	
	2.3	All odd numbers from 83 to 125
2/12	2.3	
	2.4	All odd numbers from 131 to 167
2/19	2.4	
	2.5	All odd numbers from 177 to 187, 188, 192
2/21	2.5, Review	
2/24	Review	
2/26	Test 1, Wednesday, February 26. Take-Home Exam 1 Due Date	
2/28	Review	
3/3	3.1	All odd numbers from 1 to 29 and from 35 to 43
3/5	3.2	All odd numbers from 55 to 79
	3.3	All odd numbers from 107 to 117 and from 137 to 141
3/7	3.3	
	3.4	All odd numbers from 151 to 161
3/10	3.5	All odd numbers from 175 to 183, from 191 to 199 and from 205 to 213
	3.6	All odd numbers from 215 to 239 and from 245 to 251
3/12	3.7	All odd numbers from 265 to 293
	3.8	All odd numbers from 301 to 309 and from 317 to 321
	3.9	All odd numbers from 331 to 353
3/14	Review	
3/24	Test 2, Monday, March 24. Take-Home Exam 2 Due Date	
3/26	Review	
	4.1	All odd numbers from 1 to 41
3/28	4.2	All odd numbers from 47 to 55 and from 69 to 77
	4.3	
3/31	4.3	All odd numbers from 91 to 97 and from 101 to 133
	4.4	All odd numbers from 149 to 155 and from 161 to 183
4/2	4.5	All odd numbers from 195 to 229
4/4	4.5	
	4.6	All odd numbers from 251 to 287 and from 295 to 305
4/7	4.6	
	4.7	All odd numbers from 311 to 321 and from 325 to 345
4/9	4.8	All odd numbers from 357 to 395
4/11	4.9	All odd numbers from 407 to 431
	4.10	All odd numbers from 465 to 507
4/14	Review	
4/16	Test 3, Wednesday, April 16. Take-Home Exam 3 Due Date	
4/21	Review	
4/23	5.1	All odd numbers from 1 to 57
	5.2	All odd numbers from 61 to 115
4/25	5.2	
	5.3	All odd numbers from 145 to 197

4/28	5.4	All odd numbers from 207 to 231
	6.1	All odd numbers from 1 to 37
4/30	5.5	All odd from 255 to 287
5/2	5.6	All odd from 321 to 365
	5.7	All odd numbers from 391 to 405
5/5	Review	
5/7	Test 4, Wednesday, May 7. Take-Home Exam 4 Due Date	
5/9	Review	
5/12	Final Exam, Monday, May 12, 8:00 am – 10:00 am in EDB 111	

UNIVERSITY POLICIES

1. In the event of a weather emergency which requires curtailment or cancellation of classes, listen to WTIC (1080 AM) or call 860-832-3333 for the “general snow message.”

2. **The last day to add** a course is Tuesday, January 28. Students may **drop** a full semester course by **Tuesday, February 11** without permission and without any notation on the record (no “W” grade). **The last day to withdraw** from a course without instructor’s approval is **Tuesday, April 22** (a “W” grade will appear on the record for that course). It is strongly recommended that students consult with their academic advisors prior to deciding to withdraw. Cessation of attendance, notice to the instructor, or telephone calls to the Registrar’s Office are not considered official notice of a student’s intention to drop the course. **After April 22 withdrawals are allowed only under extenuating circumstances** and require approval of the course instructor and the department chair.

3. All students are expected to demonstrate integrity in the completion of their coursework. **Academic integrity** means doing one's own work and giving proper credit to the work and ideas of others. It is the responsibility of each student to become familiar with what constitutes academic dishonesty and plagiarism and to avoid all forms of cheating and plagiarism. Students who engage in plagiarism and other forms of academic misconduct will face academic and possibly disciplinary consequences. Academic sanctions can range from a reduced grade for the assignment to a failing grade for the course. From a disciplinary standpoint, an Academic Misconduct Report may be filed, and a Faculty Hearing Board may impose sanctions such as probation, suspension or expulsion.

For further information on academic misconduct and its consequences, please consult the Student Code of Conduct (https://docs.ccsu.edu/Student_Code_of_Conduct.pdf) and the Academic Misconduct Policy (<https://www.ccsu.edu/academicIntegrity/academic-misconduct-policy>). *All members of CCSU must at all times govern their social and academic interactions with tolerance and mutual respect...Because of the BOR’s and CCSU’s commitment to principles of pluralism, mutual respect, and civility, certain activities are not acceptable on CCSU campuses.* Please be aware that any violations of this Code of Conduct will result in a report of misbehavior to the Office of Student Conduct. Severe violations can result in dismissal from CCSU.

4. CCSU complies with all federal, state, and local laws, regulations, and ordinances prohibiting discrimination, harassment, and/or retaliation, including retaliation for engaging in protected activity, in public post-secondary education institutions. CCSU does not discriminate against any employee, applicant for employment, student, or applicant for admission on the basis of actual or perceived age, ancestry, color, gender expression, gender identity, genetic information and/or family medical history, intellectual disability, learning disability, parental, family or marital status, past or present history of mental disability, physical disability, pregnancy or related conditions, race or national origin, religion or

creed, sex, sexual orientation, veteran or military status, arrest and/or criminal conviction status, lawful source of income, citizenship or immigration status, or any other protected characteristic under applicable local, state, or federal law, including protections for those opposing discrimination or participating in any grievance process within the institution. (For more information, please see <https://www.ccsu.edu/OEI>).

5. Central Connecticut State University (CCSU) is dedicated to ensuring equal access to academic programs and services in accordance with the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act. Students with documented disabilities or temporary impairments who require accommodations are encouraged to contact the Office of Accessibility Services (OAS) at 860-832-1952 or via email at accessibilityservices@ccsu.edu. For more information on the registration process for accommodations, please visit the Accessibility Services website at <https://www.ccsu.edu/accessibility/>. Once accommodation is approved, it is strongly recommended that students discuss their needs with professors at the start of each semester to ensure mutual understanding. Please note that accommodation must be requested each semester and cannot be applied retroactively. Additionally, under Title IX of the Education Amendments of 1972 (20 U.S.C. §1681 et seq.), CCSU prohibits discrimination on the basis of sex, including pregnancy, childbirth, and parental status, in educational programs and activities. Students seeking pregnancy-related accommodation should contact the Office of Accessibility Services.

6. The Student Wellness Center's Counseling and Student Development Department supports students' academic success by assisting them in resolving mental health concerns and other personal difficulties. The Center offers individual counseling, group counseling, and psychiatric referral services to enrolled full- and part-time students. They also provide referrals for specialty, long term, or more intensive services. Services are provided at no additional charge and are confidential. (Please see <https://www.ccsu.edu/counseling-and-student-development>.)

7. The Student Wellness Center's Health Services Department supports students' academic success by providing routine medical care to enrolled full and part-time students. Services are provided at no additional charge and are confidential, although some lab tests, immunizations, treatments, and prescription medications may require a small fee. They also provide referral services for more complex or serious medical issues. (Please see <https://www.ccsu.edu/health-services>.)

RESOURCES AVAILABLE

- 1. If you need help, take advantage of your instructor's office hours. Do not wait until just before the test to do so.**
- 2. Free tutoring is available in The Learning Center -- located in Diloretto Hall, Room 316 (D-316). They can be reached at (860) 832-1900. A schedule for the hours the Center is open will be posted soon after the beginning of the semester.**
- 3. Form a study group with other students in your section. Explaining solutions to homework problems to each other is a good way to learn.**

ADDITIONAL IMPORTANT INFORMATION:

- 1) I will **not** use or post anything on Blackboard.
- 2) Your online homework will be on a website called **Edfinity.com**. Once I create your online homework, you will receive an invitation link from Edfinity.com to join. You need to click on that link and follow the instructions. At some point you will be asked to pay for this service. Once you pay, your account will be active for five months and that is all you need to pay for this course, because the book is free and available online at <https://openstax.org/details/books/calculus-volume-1>.