

Math 161 Syllabus

Coordinator: Dr. Philip Kopel (philip.kopel@colostate.edu)

Instructor: Varies with section (see your section Canvas page).

Suggested Textbook: Thomas' Calculus, by George Thomas

About the Course: This class covers a traditional range of Calculus II topics, such as integration techniques (including integration parts, trig substitution, and partial fractions), improper integrals, applications of integration, sequences and series, convergence criteria, Taylor series and their applications, complex numbers and Euler's formula.

This course emphasizes critical reasoning and problem solving skills rather than rote memorization, so working a large number of practice problems (and seeking help when you're stuck!) is essential. Many of the problems we assign will be problems that you will need to consider and think through rather than problems that you can solve right away. The hope is that, when you are finished with this course, you will not only be able to do more math, but you will actually be "better" at math!

Prerequisites: The prerequisite for this class is Calculus I, and a thorough working understanding of the topics covered in that course is essential for succeeding in Calculus II. These include limits, derivative rules, L'Hopital's rule, integrals, the fundamental theorem of calculus and u-substitution, as well as pre-calc topics such as exponentials, logarithms, trig functions, and so forth.

Calc Center: Tutoring and regular help hours for each instructor are available for this course through the Calculus Center. The Calculus Center is located in the Russell George Great Hall in The Institute for Learning and Teaching (TILT). No appointment is necessary and all students are welcome. TILT also provides their own tutoring services for Math 161; for more detailed information please see <http://tilt.colostate.edu/learning/tutoring/>.

Grade Distribution

Precise letter grade cut-offs will be determined at the end of the semester, but are expected to be no stricter than:

A: 90-100%

B: 80-89%

C: 70-79%

D: 64-69%

Your final grade is computed based on your homework (10%), quizzes (5 %), the three midterms exams (20% each) and final exam (25%). Please be aware that we do not use Canvas to compute averages, and any averages automatically generated by Canvas are likely not correct and may even be substantially misleading. It is assumed that if you are enrolled in math course that you are able to quickly and easily compute a weighted average yourself, and thereby your standing in the class.

Please also note that we do not offer any additional or alternative credit opportunities at the end of the semester, we do not adjust grades based on the requirements of a given major, scholarship, planned future course work or graduation schedule.

Lectures: Lectures will be delivered by your section instructor. While attendance is not a factor in the your grade, it is very strongly recommended.

Homework: Homework is assigned weekly, except for exam weeks, and is graded for both completion and presentation as well as for accuracy. Homework needs to be submitted in person. Scores lower (as a percentage) than your midterm exam average are replaced by the midterm exam average at the end of the semester.

Quizzes: Quizzes will be given in class at the end of most weeks, on Friday, excluding exam weeks. Scores lower (as a percentage) than your midterm exam average are replaced by that average at the end of the semester, and for this reason make-ups are never offered.

Exams: Midterm exams will be given on select Thursday evenings, as detailed on the schedule of classes and on your section's Canvas page. The final exam will be given on the date and time designated by the university; this information can be found on the CSU Final Exam Schedule webpage.

Exam Policies

- You must make sure you bring your student ID with you to all exams. Having calculators, notes, phones, and so forth on your person, or in an easily accessible or concealed location, during an exam is strictly not allowed, so you should make sure they're securely put away before an exam begins.
- Direction from exam proctors must be followed, and acting in a way that is disruptive to your fellow students is not tolerated.
- Midterm exams are not necessarily held in the same room as lectures, and the final exam is not necessarily going to be held in the same rooms as the midterms. Exam room information will be provided by your instructor as it is provided to us by the university, and doors close twenty to thirty minutes into each exam. It is the student's responsibility to be where they're supposed to be.
- Please check that grades are entered accurately on Canvas, and alert their instructor in a timely manner in case of error. Time for review of exams will be provided in class on the day exams are returned; concerns about exam grading need to be brought during this time, before leaving the classroom.
- Please make sure you can make all of the exams at the beginning of the semester, and do not schedule personal travel that conflicts with these times, as this will not be considered valid for the purposes of scheduling an alternate testing time. This includes wanting to leave early for academic break. The only exceptions are conflicts with university approved absences (for which a special letter is required), religious observances, and for very serious emergencies.
- In the case of a legitimate exception, it is the student's responsibility to inform the instructor in a timely manner and provide written documentation. Excessive and unreasonable tardiness may compromise our ability to provide an accommodation.
- If you have a serious medical emergency, you will need to obtain medical documentation from an appropriate health care professional which specifically and explicitly attests to you not being physically able to take the exam. In particular, a note that documents a visit to the Health Center only will not be considered adequate.

SDC Accomodations: If you require Student Disability Center Accommodations for exams, you must make arrangements with the Student Disability Center and provide formal documentation to the course coordinator and your instructor. SDC exams should be scheduled at least one week in advance of the exam. The exam needs to be taken at the same date and with the same starting time as the unaccommodated midterm, except in exceptional circumstances or if this is required by your accommodation, in which case an alternate start time needs been cleared with the course coordinator.

Conduct Policies: While in class, in exams, or in the Calc center, it is expected that each student is respectful of their fellow students and instructor, and acting a way that is not consistent with a positive, inclusive, welcoming enviornment is very strictly not tolerated and consequences, including grade penalties or removal, may be applied in the event of a violation. If there is another student who is, in any way, making you feel uncomfortable in class, please notify your instructor or course coordinator right away.

University Resources: A number of other university policies and resources, which are common to each and every CSU syllabus, can be found here: <https://col.st/2FA2g>.

Academic Honesty Policy: The University Policy on Academic Integrity is enforced in this course, and the academic honesty penalties are predicated on a 'less than zero' philosophy that it is better to not hand in an assignment at all then it is to hand one in dishonestly. It is typically not possible to pass the course after an infraction. Please also be advised that potential academic honesty infractions are assessed on a preponderance of evidence basis and in a factual dispute between a student and an instructor or exam proctor the burden of proof typically would rest with the student. We strongly advise you not to run afoul of the honesty code – it is simply not worth it.

All work submitted must be reflective of your own understanding. Uploading questions online, or using a solution which was either obtained online or authored in the main by another person or service, is strictly prohibited. You also can not resubmit work from a previous semester, even if it was done honestly initially. Submitting work that is excessively similar to that of another student's, or that you can not justify or explain adequately afterward, is also considered academic dishonesty. This includes exam solutions that the student can not explain later. The course policy is that if several assignments are found to be excessively similar, then academic honesty penalties will be incurred by all of the students in question.

Please note that simply having access to forbidden materials – such as notes, a calculator, a smart phone, etc – during an exam constitutes a breach of academic honesty, whether or not you are observed actually using them. Likewise, making misrepresentations to course personnel, or providing fraudulent or misleading documentation is also considered a violation of the honesty code.

Statement from the Colorado Commission on Higher Education The Colorado Commission on Higher Education has approved MATH-161 for inclusion in the Guaranteed Transfer (GT) Pathways program in the GT-MA1 category. For transferring students, successful completion with a minimum C–grade guarantees transfer and application of credit in this GT Pathways category. For more information on the GT Pathways program, go to <https://cdhe.colorado.gov/guaranteed-transfer-gt-pathways-general-education-curriculum>

AUCC Content Criteria

- a) Demonstrate good problem-solving habits, including:
 - Estimating solutions and recognizing unreasonable results.
 - Considering a variety of approaches to a given problem, and selecting one that is appropriate.
 - Interpreting solutions correctly.
- b) Generate and interpret symbolic, graphical, numerical, and verbal (written or oral) representations of mathematical ideas.
- c) Communicate mathematical ideas in written and/or oral form using appropriate mathematical language, notation, and style.
- d) Apply mathematical concepts, procedures, and techniques appropriate to the course.
- e) Recognize and apply patterns or mathematical structure.
- f) Utilize and integrate appropriate technology.

Core Student Learning Outcomes

Quantitative Literacy

Interpret Information

- a) Explain information presented in mathematical forms (e.g., equations, graphs, diagrams, tables, words).

Represent Information

- a) Convert information into and between various mathematical forms (e.g., equations, graphs, diagrams, tables, words).

Perform Calculations

- a) Solve problems or equations at the appropriate course level.
- b) Use appropriate mathematical notation.
- c) Solve a variety of different problem types that involve a multi-step solution and address the validity of the results.

Apply and Analyze Information

- a) Make use of graphical objects (such as graphs of equations in two or three variables, histograms, scatterplots of bivariate data, geometrical figures, etc.) to supplement a solution to a typical problem at the appropriate level.
- b) Formulate, organize, and articulate solutions to theoretical and application problems at the appropriate course level.
- c) Make judgments based on mathematical analysis appropriate to the course level.

Communicate Using Mathematical Forms

- a) Express mathematical analysis symbolically, graphically, and in written language that clarifies/justifies/summarizes reasoning (may also include oral communication).

Address Assumptions

- a) Describe and support assumptions in estimation, modeling, and data analysis, used as appropriate for the course.

Problem Solving

7) Define a problem

- a) Construct a detailed and comprehensive problem statement or goal.
- b) Identify relevant contextual factors.

8) Propose Exact and Approximate Strategies for Solution of a Problem

- a) Identify reasonable approaches to solving the problem within the given context.

Evaluate Potential Strategies

- a) Provide an evaluation of the potential strategy(ies) which may include:
 - i. the history of the problem,
 - ii. the logic behind the potential strategy(ies),
 - iii. the limitations of potential strategy(ies),
 - iv. the feasibility of the proposed strategy(ies),
 - v. the potential impacts of the proposed strategy(ies).
- b) Choose a feasible strategy.

Apply a Strategy

- a) Implement chosen approach(es).
- b) Quantify uncertainty and error in results.
- c) Gauge success of the chosen strategy(ies) and revise as needed.

Evaluate Results

- a) Discuss and review results relative to the context of the problem.
- b) Make recommendations for further work (where applicable).

University Resources

Canvas Information and Technical Support

Canvas is the learning management system (LMS) where course content, grades, and communication will reside for this course.

Login: canvas.colostate.edu

Support: canvas.colostate.edu/support

For passwords or any other computer-related technical support, contact the Central IT Technical Support Help Desk.

Voice: (970) 491-7276

Email: help@colostate.edu

For info on using browsers, apps, and third-party tools with Canvas, see Student Support Canvas. Further information about Academic Integrity is available at CSU's Academic Integrity – Student Resources.

Universal Design for Learning/Accommodation of Needs

CSU is committed to the principle of universal learning. This means that our classroom, our virtual spaces, our practices, and our interactions should be as inclusive as possible. Mutual respect, civility, and the ability to listen and observe others carefully are crucial to universal learning.

If you are a student who will need accommodations in this class, please contact your instructor to discuss your individual needs. Any accommodation must be discussed in a timely manner. A verifying memo from The Student Disability Center (SDC) may be required before any accommodation is provided.

The Student Disability Center (SDC) has the authority to verify and confirm the eligibility of students with disabilities for the majority of accommodations. While some accommodations may be provided by other departments, a student is not automatically eligible for those accommodations unless their disability can be verified and the need for the accommodation confirmed, either through SDC or through acceptable means defined by the particular department. Faculty and staff may consult with the SDC staff whenever there is doubt as to the appropriateness of an accommodative request by a student with a disability.

The goal of SDC is to normalize disability as part of the culture of diversity at Colorado State University. The characteristic of having a disability simply provides the basis of the support that is available to students. The goal is to ensure students with disabilities have the opportunity to be as successful as they have the capability to be.

Support and services are offered to student with functional limitations due to visual, hearing, learning, or mobility disabilities as well as to students who have specific physical or mental health conditions due to

epilepsy, diabetes, asthma, AIDS, psychiatric diagnoses, etc. Students who are temporarily disabled are also eligible for support and assistance.

Any student who is enrolled at CSU, and who self-identifies with SDC as having a disability, is eligible for support from SDC. Specific accommodations are determined individually for each student and must be supported by appropriate documentation and/or evaluation of needs consistent with a particular type of disability. SDC reserves the right to ask for any appropriate documentation of disability in order to determine a student's eligibility for accommodations as well as in support for specific accommodative requests. The accommodative process begins once a student meets with an accommodation's specialist in the SDC.

Copyrighted Course Materials

Consult the instructor's syllabus for the rights and responsibilities related to creative works.

Undocumented Student Support

Any CSU student who faces challenges or hardships due to their legal status in the United States and believes that it may impact their academic performance in this course is encouraged to visit Student Support Services for Undocumented, DACA and ASSET for resources and support. Additionally, only if you feel comfortable, please notify your professor so they may pass along any additional resources they may possess.

Food Insecurity

Any CSU student (along with faculty and staff) who is experiencing food insecurity can receive support from the Rams Against Hunger program. Services include a food pantry, a meal-swipe program, pocket pantries, and in-person assistance with navigating federal aid eligibility. The RAH page includes numerous resources as well as county, state and federal programs which are described and linked.

Title IX/Interpersonal Violence

For the full statement regarding role and responsibilities about reporting harassment, sexual harassment, sexual misconduct, domestic violence, dating violence, stalking, and the retaliation policy please go to: Title IX – Sexual Assault, Sexual Violence, Sexual Harassment.

If you feel that your rights have been compromised at CSU, several resources are available to assist: Student Resolution Center, 200 Lory Student Center, 491-7165 Office of Equal Opportunity, 101 Student Services, 491-5836

A note about interpersonal violence: If you or someone you know has experienced sexual assault, relationship violence and/or stalking, know that you are not alone. As instructors, we are required by law to notify university officials about disclosures related to interpersonal violence. Confidential victim advocates are available 24 hours a day, 365 days a year to provide support related to the emotional, physical, physiological and legal aftermath of interpersonal violence. Contact the Victim Assistance Team at: 970-492-4242.

Religious Observances

CSU does not discriminate on the basis of religion. Reasonable accommodation should be made to allow individuals to observe their established religious holidays.

Please see CSU's Religious Observances Calendar.

Students seeking an exemption from attending class or completing assigned course work for a religious holiday will need to fill out the Religious Accommodation Request Form and turn it in to the Division of Student Affairs, located on the second level of the Administration building.

Once turned in, the Division of Student Affairs will review the request and contact the student accordingly. If approved, the student will receive a memo from the Dean of Students to give to their professor or course instructor.

Students are asked to turn in the request forms as soon as the conflict is noticed. Similarly, unanticipated conflicts requiring a religious observance, such as a death in the family, can also be reviewed.

CSU Principles of Community

Inclusion: We create and nurture inclusive environments and welcome, value and affirm all members of our community, including their various identities, skills, ideas, talents and contributions.

Integrity: We are accountable for our actions and will act ethically and honestly in all our interactions.

Respect: We honor the inherent dignity of all people within an environment where we are committed to freedom of expression, critical discourse, and the advancement of knowledge.

Service: We are responsible, individually and collectively, to give of our time, talents, and resources to promote the well-being of each other and the development of our local, regional, and global communities.

Social Justice: We have the right to be treated and the responsibility to treat others with fairness and equity, the duty to challenge prejudice, and to uphold the laws, policies and procedures that promote justice in all respects. Diversity and Inclusion

Consult the instructor's syllabus for the course specific diversity statement.

Student Parents/Guardians/Caregivers

CSU recognizes that student parents/guardians and caregivers face distinctive challenges in succeeding academically, and we are committed to supporting those of you who are parents to achieve course learning outcomes. If you encounter challenges in meeting course expectations – for example, fulfilling attendance and participation requirements or submitting assignments due to a child or person in your care's illness, essential appointment, school closure, etc. – please contact your instructor as soon as possible (beforehand if feasible or as soon afterward you reasonably can if not). Work with your instructor to develop a plan for you to make up missed work. Also, please see the course syllabus for related course policies. If you need to bring your child or person you care for to class, for example because you're nursing or planned childcare became unavailable, check with your instructor about whether you may do so if you believe it's feasible for you to participate in class and support your child or person in your care. Group work assignments should be designed to provide flexible approaches to participating, and all groups should develop plans that enable all members to contribute equitably. If your group encounters challenges in doing so, please reach out to your instructor to devise a solution.

Finally, know that pregnant and parenting students are guaranteed equal educational opportunities by Title IX; know your rights, the protections provided, and how to advocate for yourself.

Student Case Management

Student case management (SCM) is available to help students with extenuating life circumstances and connect them with resources. In some cases, after you and your instructor discuss your situation, your instructor may request verifiable documentation for class absences from the SCM office if you request considerations for absences or missed coursework.

Mental Health and Wellness

CSU is a community that cares. You are not alone. CSU Health Network Mental Health Services has trained professionals who can help. Your student fees provide access to a wide range of mental health and well-being support services.

Call Mental Health Services at (970) 491-6053, and they will work together with you to find out which services are right for you.

If you are concerned about a friend or peer, use Tell Someone by calling (970) 491-1350 or visiting Tell Someone to share your concerns with a professional who can discreetly connect the distressed individual

with the proper resources. Rams Take Care of Rams. Reach out and ask for help if you or someone you know is having a difficult time.