

Math 0120 - Business Calculus

Student Guidelines and Syllabus

About the course

This course is designed for students in business, economics, and other social sciences. It introduces the basic concept of limit and its application to continuity, differentiation, integration, maximization, minimization, and partial derivatives. Applications to the social sciences, especially business and economics, are stressed. The calculus of trigonometric functions is not covered.

Students who successfully complete this course will be able to:

- Find limits of functions presented as graphs, tables, or algebraic expressions.
- Use the concept of limit to define the derivative of a function.
- Differentiate functions involving powers, exponentials, and logarithms.
- Apply the concepts of differentiation to solve optimization problems.
- Use derivatives to hand sketch the graphs of functions.
- Integrate functions involving powers, exponentials, and logarithms.
- Use definite and indefinite integrals to solve problems.
- Find partial derivatives of functions of two variables.
- Apply the method of Lagrange multipliers to solve constrained optimization problems.

Course Prerequisites

Minimum math placement score of 61 or Math 0031 with minimum grade of C.

Course Delivery

This course will be taught in-person unless the university health policy mandates that the course be moved online. This means that the default format will consist of your instructor presenting material in the classroom.

The course consists of lecture and recitation components. Each student must register for a recitation that is associated with the lecture that he or she is attending. Lectures are M, W, F. Recitations are scheduled on Tu and Th of each week. Recitations will be devoted to problem solving and quizzes. Each scheduled recitation will have its assigned TA. The student should read each section before the lecture on that section. The default website for the course is the Canvas webpage. Please check it regularly for announcements and assignments.

Textbook

The textbook for this course is Brief Applied Calculus, Seventh Edition, by Geoffrey C. Berresford and Andrew M. Rockett; Brooks/Cole CENGAGE Learning. All students who register for this course are automatically enrolled in the [RedShelf Inclusive Access](#) program and will be charged on their Pitt student bill unless they [opt out](#) before the end of the add/drop period. This program provides students with discounted access to the digital version of the textbook and the publisher's WebAssign content, but only the textbook itself will be required. If you already have a copy of the textbook or would prefer to purchase it from a different source (for example, you may be able to find a used copy at a lower cost), then you should opt out of Inclusive Access. You will be able to opt out by clicking on the "RedShelf Inclusive Access" link in your course on Canvas. If you do not opt out of Inclusive Access, then you will be able to access the digital textbook through a link to WebAssign in Canvas.

Homework

Homework will be completed online through the WeBWorK platform. Your TA will demonstrate how to use WeBWorK at the beginning of the semester, but please also read the [WeBWorK instructions](#) before getting started. You will need to select your course from the list on the WeBWorK homepage <http://webwork.math.pitt.edu/> and then log in with your Pitt username and password. Alternatively, you can navigate directly to your course's log-in screen via the URL <http://webwork.math.pitt.edu/Math0120-xxxxx/>, where **XXXXX** should be replaced with your section's five digit class number.

Practice Problems

In addition to the graded homework (WeBWorK), you are expected to complete the practice problems listed for each section on the course schedule. Although these problems will not be graded, quiz and exam problems will sometimes be modeled after them.

Quizzes and Midterm Exams

This course usually includes three midterm exams, and their approximate dates are listed on the course schedule. Your instructor may also assign quizzes to be completed during recitations. Exams and quizzes will be given in class.

Final Exams

All day sections will take a departmental final exam at a time to be scheduled by the registrar. **Calculators will not be permitted on the departmental final exam.** Evening sections will meet through final exam week, and the final exam will be given during the last one or two scheduled class periods. The date and time of the final exam will be announced by your instructor.

Grades

Each student's course grade will be determined solely by their performance on the graded assignments and will be calculated using a weighting scheme similar to the one listed below. Some sections may deviate from this recipe, but any deviations will be announced by your instructor at the beginning of the term.

Homework	15%
Quizzes	15%
Exam #1	15%
Exam #2	15%
Exam #3	15%
Final Exam	25%

Final Grade Policy

Prior to the fall 2022 semester, the math department implemented a final grade policy. It stated that your final grade in the course cannot exceed your final exam grade by more than one letter. For example, the highest grade one could earn if they scored an F on the final exam would be a D in the course. **This policy will no longer be implemented.** Your final grade will be computed based on the weights that your instructor lists under the “Grades” category. Your final exam grade will only count as much as your instructor specifies (e.g. 40%) and will not limit your grade in any other way.

Calculator Policy

In addition to the textbook, you may find it helpful to use a scientific or graphing calculator while completing homework and practice problems. However, calculators will not be permitted on the departmental final exam. Your instructor may or may not permit usage of calculators on the midterm exams.

Computer Accounts

As a University of Pittsburgh student, you should already have a Pitt computer account. You will need to know your username and password to access the computer resources.

Getting Help

Tutoring

The Math Assistance Center offers free tutoring by appointment, including same-day appointments if they are available. The MAC will also offer walk-in assistance provided by TA's. For more information about scheduling appointments or visiting the MAC for walk-in hours, please visit the [MAC Website](#).

Note that the MAC opens during the second week of courses.

Office Hours

Your instructor and TA will announce their office hours and list them on Canvas. Your instructor or TA may opt to hold office hours over Zoom.

Disability Resource Services

If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor and the [Office of Disability Resources and Services](#) (DRS), 140 William Pitt Union (412) 648-7890, drsrecep@pitt.edu, (412) 228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability and determine reasonable accommodations for this course.

Academic Integrity

Cheating/plagiarism will not be tolerated. Students suspected of violating the [University of Pittsburgh Policy on Academic Integrity](#) may incur a zero score for the assessment in question. Additional sanctions may be imposed, depending on the severity of the infraction. Even during this COVID-19 pandemic, Academic Integrity policies will be enforced. If there is any doubt about the originality of a student's submission for an assessment, they may be asked to explain their work during a one-on-one meeting with their instructor. If the student's explanations are unsatisfactory, they may receive a zero score for the assessment, or the instructor may choose to administer an alternative assessment in a different format.

Please note, in particular, that Pitt has a data sharing arrangement with Chegg.com that enables us to identify instances in which Chegg.com has been used to cheat on assessments. Consequences of being caught in this academic integrity violation have included zero scores on assessments and F grades for the course.

Health and Safety

It is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. For the most up-to-date information and guidance, please visit coronavirus.pitt.edu and check your Pitt email for updates before each class.

Diversity and Inclusion

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, see: <https://www.diversity.pitt.edu/civil-rights-title-ix-compliance/policies-procedures-and-practices>.

We ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online: <https://www.diversity.pitt.edu/make-report/report-form>. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

E-mail Communication

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by your instructor and the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. Please consult the [University Email Communication Policy](#) for more details.

Classroom Recording

To ensure the free and open discussion of ideas, students may not record classroom lectures, discussion and/or activities not already recorded by the instructor, without the advance written permission of the instructor, and any such recording properly approved in advance can be used solely for the student's own private use.

Copyright

Some of the materials in this course may be protected by copyright. United States copyright law, 17 USC section 101, et seq., in addition to University policy and procedures, prohibit unauthorized duplication or retransmission of course materials. See the [Library of Congress Copyright Office](#) and the [University Copyright Policy](#).