

Math 204-1: Calculus for Business & Social Sciences

Course number: 30532

IAI# M1 900-B

Section AC

5 credit hours

Term: Fall 2022 - 16 week session

Class meeting times: M W 8:40 am - 10:50 am

Course modality:

This class will be held remotely at the scheduled class time. Students should plan to participate in live (synchronous) Zoom class meetings and instructional activities during each scheduled class day at the times listed in the schedule. Students are expected to participate regularly in the course based on the requirements outlined in this syllabus.

Zoom link:

https://cccedu.zoom.us/j/89230048306?pwd=WktjSTJGVIJQSVc0aG1FMEJ0bjNxQT09

Passcode: Math204

Instructor: Dr. Nedjla Ougouag

Contact: nougouag@ccc.edu

Office Hours: Via Zoom upon request by e-mail.

Zoom link: https://cccedu.zoom.us/j/81135171103?pwd=ei9OOER3KzFhZWI5WIcwWE55M1hsdz09

Passcode: Office Available times:

Mondays & Wednesdays: 2:00 PM – 4:30 PM.

• Thursdays: 1:00 PM - 3:00 PM.

Prerequisites: Completion of Math 140 with a C or better, or ALEKS math score of 61+, or COMPASS ALGEBRA 43+ AND College ALGEBRA 51+ AND TRIGONOMETRY 1-50, or ACT Math 24+, or SAT Math 560+ if before 3/1/16 (580+ if after 3/1/16) or Consent of department.

Additional course website: http://ougouag.com

Changes to this Syllabus

This syllabus is subject to change, if necessary, during the semester. If a major change occurs, it will be thoroughly addressed during class, posted under Announcements on the class website and on Brightspace and communicated via email.



Catalog Description

Calculus for Business & Social Sciences

This course provides an introduction to differential and integral calculus with specific applications to business and social science. The use of technology (e.g., graphing calculator, an algebraic system, etc.) and writing as appropriate to the discipline will be emphasized in this course.

Course Objectives

- Understand the concepts of a limit, continuity, and differentiability.
- Differentiate algebraic, exponential, and logarithmic functions.
- Apply the sum, product, quotient, and chain rules of differentiation.
- Understand the concept of an antiderivative and its role in the Fundamental Theorem of Calculus.
- Apply various integration techniques and numerically estimate definite integrals.
- Apply the concepts of differential and integral calculus to business and social science scenarios.

Student Learning Outcomes

Upon satisfactory completion of the course, students will be able to:

- 1. Estimate limits and derivatives graphically and by using tables of values.
- 2. Calculate limits of functions algebraically.
- 3. Calculate derivatives of functions using the definition of a derivative.
- 4. Calculate derivatives of functions using the sum, product, quotient and chain rules.
- 5. Determine the equation of a tangent line to the graph of a function.
- 6. Determine local and absolute extreme values for functions in one variable.
- 7. Apply derivatives to problems involving optimization.
- 8. Determine antiderivatives of functions.
- 9. Evaluate definite integrals by using the Fundamental Theorem of Calculus.
- 10. Calculate integrals using substitution, integration by parts methods, and integration tables.
- 11. Calculate partial derivatives of a function in two variables.
- 12. Determine local extrema for functions in two variables.
- 13. Use LaGrange multipliers to determine local extrema with constrains.

Technical Assistance Help Desk

You can obtain technical and computer help desk assistance by contacting Online Learning:



Online Technical Assistance site Phone #: 312-553-2600

For loaner laptops and wifi hotspot: https://apps.ccc.edu/LoanerLaptop/login

Course Ethics

It is my intent to present materials and activities in a manner respectful of diversity—gender identity, sexuality, disability, age, socioeconomic status, ethnicity, race, nationality, religion, and culture—and that students from all diverse backgrounds and perspectives be well-served by this course. Your suggestions are encouraged and appreciated. Please let me know ways to improve the effectiveness of the course for you personally, or for other students or student groups.

Course Materials

Textbook

This course uses MyOpenMath, an Open Educational Resource. Zero cost course materials. The course covers all four chapters from Applied Calculus by Shana Calaway, Dale Hoffman and David Lippman. Since MyOpenMath is integrated in Brightspace, you don't need to create any account. You will access the assignments, videos and other MyOpenMath contents from Brightspace. Online computer access is an integral part of the course. Although no prior computer knowledge is required, you cannot be enrolled in this class without having online computer access outside of the classroom.

A Graphing calculator: strongly recommended. Preferable: TI-83 or TI-84.

My personal Website: http://ougouag.com

I will be complementing your course material with a specific Math 204 Course Website. You will find on it:

- This syllabus,
- video tutorials (VERY USEFUL!)
- handouts,
- cheat sheets,
- links to text tutorials
- and MANY other helpful Calculus Tools from the web.

Brightspace

If this is your first time using Brightspace, familiarize yourself with this platform by taking the training sessions available when you first login.

On Brightspace you will find:

- Lecture Notes in PowerPoint format.
- Assignments you must complete, with due dates and times.
- Quizzes, with due dates and times.



- Discussion Assignments.
- Zoom Live Class Meetings that you must attend in person (see below).
- Your Grades.
- Many other Resources.

Guidelines for Participation in Virtual Class Meetings

- Remote classes are live virtual classrooms. Your attendance for the entirety of the class is required. If your connection drops, please rejoin the class. If you need to join late or leave early, please reach out to me prior to the start of class.
- 2. Active class participation is integral to the student learning experience. Use your microphone, the chat feature, the reactions, answer poll questions, and/or share screen features to engage and participate.
- 3. Please do not join any class if you are commuting, working out, are at work or otherwise distracted as active participation in the class is required. If our class were in-person, it would be inappropriate to schedule appointments and/or work or run errands during class time. Treat remote classes as you would in-person classes. If you cannot adhere to the above protocol for participation in the virtual class meeting due to overlapping commitments, please do not register for courses with a virtual meeting component. Students enrolled in courses with virtual (Zoom) components must adhere to the same academic standards and are subject to the same disciplinary actions as students enrolled in fully in-person classes.
- 4. **During synchronous remote class sessions, please keep cameras on when possible.** I recognize that you may not always have the Internet bandwidth to use the camera. If this is the case, please post a picture of yourself or an avatar so that your classmates and I can connect with you. Here are a few websites on which you can make an avatar: https://www.bitmoji.com/ https://avatarmaker.com/ https://avatarmaker.com/ ht
- 5. I recommend attending our class on a desktop or laptop computer, or a large-screen (10 or more inches) tablet with a front-facing camera and a physical keyboard and mouse. You may occasionally be asked to share your screen. No matter how you choose to attend, make sure that you have the necessary technology to fully participate in class.

You may borrow a laptop from the school for free. Clicking on the following link for more information https://www.ccc.edu/services/Pages/Borrow-a-Laptop.aspx. You will need MSWord and a PDF reader (e.g. Adobe Acrobat). You have access to MSWord through your CCC email account. If you primarily use Google Docs, you can download MSWord files then upload them to your Google Drive and edit them in Google Docs. Be sure to convert them back to MSWord before submitting them. (Here's a tutorial on converting Google Docs files to MSWord https://howdoi.daemen.edu/knowledge-base/how-to-save-a-google-doc-as-a-word-file/).

Grading Policy

Readings

Each week, you are strongly encouraged to read the PowerPoint Lectures and read from the eBook or textbook (if you choose to acquire it) the sections related to the assignments before attempting any of



the homework assignments. It is strongly recommended to take notes while you read the text, watch videos, and/or work through the sample problems from the lecture each week. This is not a graded component of the course, but your success in subsequent assignments depends on your understanding of the material.

Orientation Quiz

A one-time non-math quiz about course policies. Read this Syllabus! (10 points)

Introduction Discussion Assignment

A Self-Introduction Discussion Assignment will be conducted on BrightSpace under Content/Discussions. This will take place during the first two weeks of class and will have a firm deadline. The goal of this assignment is to create a thoughtful dialogue and community in our classroom in this online environment. This assignment is worth 20 points provided you post a photo of yourself, enter substantial and relevant information about yourself, as well as read your classmates entries and reply to at least two classmates with more than a couple of sentences. This assignment will be closed on Sunday September 18, 11:59PM.

Homework Assignments

There is a homework assignment for each textbook section covered in the course. You will get instant feedback and additional resources are available for each problem. You will be allowed a maximum of 3 attempts for each homework exercise, and each exercise has 2 versions. Doing the homework is the only real way to learn the material! I strongly recommend completion of the homework on time. You can get up to a total of 250 points for all homework assignments. These points will be updated on BrightSpace three times during the semester (after the due date of each exam).

Quizzes

Throughout the semester there will be 8 quizzes worth 20 points each. Quizzes will contain similar exercises as the homework. Make sure you answer and <u>submit</u> all questions before you finish the quiz. Important notice: <u>DO NOT use the Enter Key</u> when submitting a question! This will submit the entire quiz and you might miss answering further questions. If you encounter any technical problems with a quiz, email your instructor immediately and request to have it reset. You are allowed *one* reset during the whole semester! The quizzes due dates will be announced in class and on BrightSpace.

Exams

There will be 3 exams during the semester. Exam1 is worth 100 points, and Exam 2 and Exam 3 are worth 200 points each. All exams will take place in my presence on Zoom, during our regular class session. Exam dates will be announced in class and on BrightSpace.

Extra credit

There will be two opportunities to acquire extra points, from additional Extra Credit Quizzes on Brightspace. These opportunities will be given towards the end of the semester and can add a



maximum of 40 points to your final points total if you answer them correctly. For these assignments, you will need to work on paper, show all the steps, and then scan your work before uploading it as "pdf" onto Brightspace. To scan your work: Download a scanning App of your choice as you will be turning in some of your quizzes/exams/assignments using this App.

- o For Android: https://beebom.com/best-camscanner-alternatives-android-ios/
- iPhones have a scanner on the phone already. If you open your Notes application and click on the camera, there is an option that lets you scan documents and converts to pdf file. How to Scan Document on iPhone

Attendance

I will be using Zoom report and Navigate to take attendance in this class. If you are absent, Navigate will automatically send you an email in that regard, that may help you keep track of your attendance frequency. Your advisor should be listed in Navigate. If there is not an advisor listed, I recommend that you reach out to the Advising Office and ask that one be assigned. Advisors can be very helpful as you explore your academic path at CCC. Log in to Navigate using your CCC username and password. This is the same username and password you would use for Brightspace and ccc student email. Your attendance total will be assessed at the end of the semester and is worth up to 60pts.

Additional remarks about grading

A "curve" is not used in the class. Keep in mind that **incompletes** are not given unless there is a verifiable emergency. The possibility of getting a low grade does not count as a verifiable emergency. Count on getting your work done during the semester.

Extra credit work will be included in quizzes and exams only and throughout the whole semester. No EXTRA TIME will be allocated for extra credit at the end of the semester!

Important note: On Exams, Quizzes and Assignments, the work done to solve the problems must be completely and clearly shown. A correct answer, by itself, is not sufficient for full credit.

Grading Criteria

Graded Items	Points	Percent
Introduction Discussion (+ photo, any age 😂 !)	20	2%
Orientation Quiz	10	1%
29 Homework Assignments: Homework problems from the OpenMath textbook are to be completed on BrightSpace	250	25%
8 Quizzes (20 points each) to be completed on BrightSpace	160	16%
Exam 1 (October 12) (100 points)	100	10%
Exam 2 (November 16) (200 points)	200	20%
Exam 3 (December 12) (200 points)	200	20%



Attendance	60	6%
Point value will be assessed at the end of the semester		
and will represent your frequency of presence during		
synchronous zoom class sessions and in person class		
sessions.		
Total	1000	100%

Grading Scale

Your final grade is calculated by dividing your earned points by the total points, changing to a percent, and rounding to the nearest whole number:

A= 100-90% (900 to 1000 points)

B= 89-80% (800 to 899 points)

C= 79-70% (700 to 799 points)

D= 69-60% (600 to 699 points)

F = 59% or below (0 to 599 points)

Late Assignments and Exams

You are expected to post and/or complete each assignment by its due date and time. Permission to make up an assignment is subject to instructor's discretion.

Except in the case of documented personal or medical hardship, subject to instructor review or discretion, there is no make-up for exams and quizzes.

Please note, this is not a self-paced course. The course is developed based on the idea that all students will do the work by the time indicated so they can progress to the next task.

Important dates

Last day for withdrawal with tuition refund	Seven calendar days from start of class
Labor Day holiday	September 05
Last day for student initiated withdrawal	November 19
Thanksgiving break	November 24-25
Final week start	December 12
End of Fall 2022 term	December 17

Course Policy

NSW - No-Show Withdrawal

Students registered in the class who do not attend the first two (2) class sessions and not pursue pursuing academic activities on BrightSpace will be withdrawn from the class by the instructor and



issued no-show withdrawal (NSW). Academic activities may include, but are not limited to, the completion of assignments, exams and quizzes or participation in online discussions. Academic activities do not include merely logging onto the BrightSpace, or acknowledging that you have read the syllabus. Students who have been issued an NSW by the instructor may, at the request of the instructor, be reinstated (RNS) into the class.

ADW -Administrative Withdrawal

Students are required to attend class. A student may be awarded an administrative withdrawal (ADW) at midterm if the instructor determines that the student is not actively pursuing completion of the course, based upon the instructor's active pursuit criteria. Active pursuit may be measured by class participation, taking required examinations, quizzes, submission of papers, work assignments, class attendance, etc.

Students who have been issued an ADW by the instructor may, at the request of the instructor, be reinstated (RNS) into the class.

Reinstatement Note:

Students may not be reinstated after the last date (available on my.ccc.edu) for student-initiated withdrawals (WTH).

A student who is reinstated (RNS) by the instructor after having received an administrative withdrawal (ADW) may not elect to withdraw (WTH) from the class at a later time.

Active Pursuit Policy

Students are meeting the criteria for active pursuit at the Midterm Date if they have completed at least 50% of assigned coursework, or if they have participated in at least 50% of class meetings/required Zoom sessions [or, in online courses: if they have accessed course materials in BrightSpace within the 3 weeks before the Midterm Date].

After the Midterm date, students are expected to continue participating in required class/zoom sessions and submitting required assignments. The last day that a student attends a class, submits an assignment, logs in to BrightSpace, or engages in email interaction with the instructor will be considered the last date of Active Pursuit.

Late Assignments and Exams

You are expected to post and/or complete each assignment by its due date and time. Permission to make up an assignment is subject to instructor's discretion.

Except in the case of documented personal or medical hardship, subject to instructor review or discretion, there is no make-up for exams and quizzes.

Please note, this is not a self-paced course. The course is developed based on the idea that all students will do the work by the time indicated so they can progress to the next task.

Course Discussion Board Policies

Students who are disrespectful or offensive to the instructor or any member of the class will first be addressed by the instructor. If there are no improvements, students will be referred promptly for disciplinary action. Please consult your student policy manual on page 66 for additional details.



Academic Dishonesty

Academic dishonesty is a serious offense, which includes but is not limited to the following: cheating, complicity, fabrication and falsification, forgery, and plagiarism. Cheating involves copying another student's paper, exam, quiz, or use of technology devices to exchange information during class time and/or testing. It also involves the unauthorized use of notes, calculators, and other devices or study aids. In addition, it includes the unauthorized collaboration on academic work of any sort. Complicity, on the other hand, involves the attempt to assist another student to commit an act of academic dishonesty. Fabrication and falsification, respectively, involve the invention or alteration of any information (data, results, sources, identity, etc.) in academic work. Another example of academic dishonesty is forgery, which involves the duplication of a signature, in order to represent it as authentic. Lastly, plagiarism involves the failure to acknowledge sources (of ideas, facts, charges, illustrations, etc.) properly in academic work, thus falsely representing another's ideas as one's own. In individual cases of academic dishonesty, sanctions may range from a written warning to a failing grade for the course; the severity of the penalty is left to the discretion of the instructor. Please consult your student policy manual on page 65 or refer to the link below for additional details.

HWC Student Resources

Disability

The Disability Access Center serves as City Colleges of Chicago's point of contact and coordination for students with disabilities. The DAC provides a wide range of services, academic supports, and assistance to ensure you have full access to all programs to achieve your maximum potential. If you have a disability for which you may require accommodations, please contact the Disability Access Center.

Religious Observance

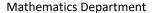
If you will require scheduling consideration due to a religious observance coinciding with a class session or due date, please inform me as soon as possible.

Military Duty

If you will require special accommodations for military activity, such as drill schedules and calls to active duty, please inform me as soon as possible.

Names and Pronouns

If you go by a name that differs from the one that appears on the roster, please inform me as soon as possible. You may also adjust your zoom profile with the name and pronouns you want us to see, so that





your classmates and I can use your correct name and <u>pronouns</u> (they, ze, he, she, etc.). If a student does not use pronouns, they can simply request that people use their names in place of pronouns.

I expect us all to do our best to respectfully use these names and <u>pronouns</u> to address one another, as an essential part of our class values.

Additionally, if students would like to ensure that their name is changed in the CCC system, including on Brightspace, you may follow this protocol:

Contact the Registrar's Office to complete a "preferred name change request"

When the name change is updated, the student portal then changes to the new name, which should then be reflected in Brightspace.

You will also still need to put in a <u>helpdesk ticket</u> with a copy of the change form attached so the "Active Directory" can be updated for your email to also reflect your name change.

(The "preferred name change" would not appear on the official transcript and the diploma because these are legal documents. If legal documentation of a name change is available, there is a separate form for a Legal Name Change.)

Academic Advising

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Advising.aspx

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/j/864397065

Advisors may assist students with registration, degree and transfer planning, and more.

Career Services

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Career-Services.aspx Make an appointment with a Career Advisor: email rgarcia617@ccc.edu or jdobson4@ccc.edu The Career Services team provides comprehensive services to help students make informed decisions about career pathways. The Career Services department offers one-on-one support, workforce readiness training, employment participation, and job developm assistance.

Chicago Legal Clinic

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Chicago-Legal-Clinic.aspx
The Chicago Legal Clinic works directly with students to identify their legal needs and provide community-based quality services. T initiate a legal inquiry during the summer semester, email attorney Brian Nix at bnix@ccc.edu or call at (312) 553-3172.

Access Center (AC)

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Disability-Access-Center.aspx
https://cccedu.zoom.us/j/3357381796
https://cccedu.zoom.us/j/3357381796





The Access Center serves as City Colleges of Chicago's point of contact and coordination for students with disabilities. The AC provides a wide range of services and assistance to ensure students with disabilities are able to achieve their maximum potential.

Financial Resources

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Financial-Aid.aspx

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/my/hwcfinaid

In arranging for the cost of tuition, or to address financial challenges in trying to pay for college, please visit the Financial Aid Office learn more about Financial Aid Guidelines, grants, loans and scholarships.

Library

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Library-System.aspx

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/my/hwclibrary

Chat with a librarian: http://hwclibrary.ccc.edu

The Harold Washington College Library offers electronic, database, and print media to support the scholarly work of students, facu and staff as well as individual and group library and information literacy instruction.

Military Affiliated Student/ Veterans Services

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Veterans-Services.aspx

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/my/hwcveteran

The Military Affiliated Student/Veterans Services Center is a centralized source of support and access to military affiliated/veterans-specific information and resources.

Navigate

Website: https://ccc.edu/Navigate

Navigate is a student support system that will be used by faculty, advisors and tutors to help students achieve success in their classes. Students can use Navigate to schedule tutoring or advising appointments, or to see communications about their course progress generated by their professors.

Registrar

Website: https://www.ccc.edu/colleges/washington/departments/Pages/Registrar.aspx

Virtual Drop-in services via Zoom: https://cccedu.zoom.us/j/3364257991#success

The Office of the Registrar administers the enrollment of students, maintains student records, and works with faculty, administration and staff on academic matters.

Techology Support

Website: https://www.ccc.edu/colleges/washington/departments/Pages/Information-Technology.aspx
The Information Technology Department assists with many technology-related needs including password reset, loaner laptops, and more. For a loaner laptop, visit https://apps.ccc.edu/loanerlaptop
For all other questions, use the Online Help Request Form at:
www.ccc.edu/help



Transfer Center

Website: https://www.ccc.edu/colleges/washington/departments/Pages/Transfer-Resources.aspx
The Transfer Center is designed to help students transfer from their original dream school (Harold Washington College) to wherever it is they want to go next. We provide resources, transfer workshops to support every step of the transfer process, one-on-one transfer advising, and many large-scale events that can help them get to their dream school.

The Healthy Food Market

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/j/3474348772

The Healthy Market is a free service available to you as an HWC student. You can visit the virtual Wellness Center to receive help in locating food and nutrition resources in your neighborhood and community.

Tutoring and Academic Support Services

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Tutoring.aspx
Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/my/hwcvirtualtutoring

Tutors are available in a wide variety of subjects to assist students through individual and group tutoring sessions. Any student who utilize tutoring services to gain a deeper comprehension of course content and to enhance learning development.

Wellness Center

Website: http://www.ccc.edu/colleges/washington/departments/Pages/Wellness-Center.aspx

Virtual Drop-in Services via Zoom: https://cccedu.zoom.us/j/3474348772

The Harold Washington College Wellness Center provides mental health and other social services to support your personal wellness and academic success.

TRIO Student Support Services (SSS)

Website: https://www.ccc.edu/colleges/washington/menu/Pages/TRIO-Program.aspx

TRIO SSS is committed to providing you with a supportive environment to improve your academic success and assist with graduation and successful transfer to a 4-year institution. TRIO SSS will provide you with individualized holistic services around academic support, mentoring, financial guidance, transfer, and career and professional development. For an application, or to answer any of your questions, please email us at hwc-triosss@ccc.edu.

Federal and State Statutes and Mandates:

Americans with Disabilities Act (ADA)

Harold Washington College abides by the Americans with Disability Act and with Section 504 of the Rehabilitation Act of 1973 and will provide reasonable accommodations to students with documented disabilities covered by these laws. If you have a disability for which you may require accommodations, please contact the Disability Access Center located in room 107 or call (312) 553-3050. http://www.ada.gov/pubs/adastatute08.htm



Federal Family Educational Rights and Privacy Act (FERPA)

Our college also abides by federal privacy laws on behalf of students and employees.

http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html

Section 504, Rehabilitation Act of 1973

https://www.dol.gov/agencies/oasam/civil-rights-center/statutes/section-504-rehabilitation-act-of-1973

Title IX Rights

Title IX represents the federal law designed to prevent sexual assault and harassment of students on college campuses and promote gender equity in education. Additionally, Title IX covers the rights of pregnant and parenting students, faculty and staff.



Course schedule

This is a week-by-week tentative course schedule (used for a 16-week term) with the textbook sections and student learning outcomes expected to be covered each week.

Applied Calculus by Shana Calaway, Dale Hoffman and David Lippman

Week	Textbook Section	Topics		
		Chapter 1: Review		
1	1.1	Functions		
	1.2	Operations on Functions		
2	1.3	Linear Functions		
	1.4	Exponents		
3	1.5	Quadratics		
	1.6	Polynomials and Rational Functions		
4	1.7	Exponential Function		
	1.8	Logarithmic Functions		
		EXAM 1		
Chapter 2: The Derivative				
5	2.1	Limits and Continuity		
	2.2	The Derivative		
6	2.3	Power and Sum Rules for Derivatives		
	2.4	Product and Quotient Rules		
7	2.5	The Chain Rule		
	2.6	Second Derivative and Concavity		
8	2.7	Optimization		
	2.8	Curve Sketching		
9	2.9	Applied Optimization		
	2.10	Other Applications		
	2.11	Implicit Differentiation and Related Rates		
		EXAM 2		
		Chapter 3: The Integral		
10	3.1	The Definite Integral		
	3.2	The Fundamental Theorem and Antidifferentiation		
11	3.3	Antiderivatives of Formulas		
	3.4	Substitution		
12	3.5	Additional Integration Techniques		
	3.6	Area, Volume, and Average Value		
14	3.7	Applications to Business		
	Chap	ter 4: Functions of Two Variables		
	4.1	Functions of Two Variables		
15	4.2	Calculus of Functions of Two Variables		
	4.3	Optimization		
16	Review	· · ·		
EXAM 3				

