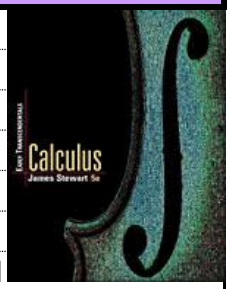
Syllabus for Math-50B-K9977 *Calculus II: Integral Calculus* – Eureka Campus



Semester & Year	Spring 2016	
Course ID and Section #	Math 50B (K9977)	
Instructor	Tami Matsumoto	
Day/Time	MTTh 11:40am-12:55pm	
Location	HTEC Rm 2 (streamed from LRC 105 in Eureka)	
Number of Credits/Units	4 units Lecture	
	This class meets on the Klamath Trinity campus, and will be streamed from the host class and instructor in Eureka with interactive live video.	
Instructor Office Hours and Contact Information	*Office location*	SC 205-B, upstairs in Science Bldg, Eureka campus
	Office hours	MTTh 10:30-11:20, M 5-6pm, and by chance and by appointment (I'll be available most of MWF)
	Phone number	(707) 476 4543
	Email address	tami-matsumoto@redwoods.edu Include "**Math 50B**" as part of the email Subject.
Textbook (Required)	*Title & Edition*	"Calculus Early Transcendentals" 5th edition
	Author	James Stewart
	ISBN	0534393217 (10), 978-0534393212 (13)
Recommended Solutions Manual	*Title & Edition*	Single Variable Calculus Early Transcendentals - Student Solutions Manual for 5th ed ET
	Author	Daniel Anderson, Jeffrey A. Cole, Daniel Drucker
	ISBN	0534393330(10), 978-0534393335 (13)
Recommended Study Guide	*Title & Edition*	Study Guide for Stewart's Calculus: Early Transcendentals Single Variable, 5th edition
	Author	James Stewart
	ISBN	0534393314 (10), 978-0534393311 (13)

Math 50B Catalog Description from Course Outline of Record

The second in the series of three calculus courses. Integral Calculus develops a set of advanced symbolic and numerical integration techniques, building on skills developed in the first course in the series, Differential Calculus. The course includes applications of integration, sequences and series, and the use of the Taylor polynomial to approximate functions. Students are introduced to parametric and polar equations.

Note: A graphing calculator is required.
Prerequisite: Math 50A

Math 50B Course Learning Outcomes from Course Outline of Record

1. Evaluate definite and indefinite integrals using a variety of integration formulas and techniques including the evaluation of improper integrals.
2. Apply integration to areas and volumes, and other applications such as work or length of a curve.
3. Apply convergence tests to sequences and series and represent functions as power series.
4. Graph, differentiate and integrate functions in polar and parametric form.

College of the Redwoods general information (not specific to Math 50B)

Special Accommodations

College of the Redwoods complies with the Americans with Disabilities Act in making reasonable accommodations for qualified students with disabilities. Please present your written accommodation request at least one week before the first test so that necessary arrangements can be made. No last-minute arrangements or post-test adjustments will be made. If you have a disability or believe you might benefit from disability related services and may need accommodations, please see me or contact Disabled Students Programs and Services. Students may make requests for alternative media by contacting DSPS at 707-476-4280.

Academic Support

Academic support is available at Counseling and Advising and includes academic advising and educational planning, Academic Support Center for tutoring and proctored tests, and Extended Opportunity Programs & Services, for eligible students, with advising, assistance, tutoring, and more.

Academic Honesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

Disruptive Classroom Behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process a disruptive student may be temporarily removed from class. In addition, he or she may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website at: www.redwoods.edu/district/board/new/chapter5/documents/AP5500StudentConductCodeandDisciplinaryProceduresrev1.pdf
Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the college catalog and on the College of the Redwoods website.

RAVE – College of the Redwoods has implemented an emergency alert system. In the event of an emergency on campus you can receive an alert through your personal email and/or phones at your home, office, and cell. Registration is necessary in order to receive emergency alerts. Please go to https://www.GetRave.com/login/Redwoods and use the "Register" button on the top right portion of the registration page to create an account. During the registration process you can elect to add additional information, such as office phone, home phone, cell phone, and personal email. Please use your CR email address as your primary Registration Email. Your CR email address ends with "redwoods.edu." Please contact Public Safety at 707-476-4112 or security@redwoods.edu if you have any questions.

Tip Line:
Persons wishing to make an anonymous report of a crime may use the tip line at 707.476.4555
Or by emailing CRTip@redwoods.edu. See also: http://www.redwoods.edu/Safety/report.asp

Students get Microsoft Office 365 FREE
All CR Students can get OFFICE 365 for *free* -- for PC, Mac, Smartphone, Tablet -- using the @mycr.redwoods.edu email address.

1. Go to https://portal.office.com/start?sku=78e66a63-337a-4a9a-8959-41c6654dfb56 (If you get an Error message using the hyperlink, copy and paste the url directly into your browser.)
2. Enter "mycr" student email account (e.g., jdoe555@mycr.redwoods.edu)
3. Go into student email account; click on the verification link in the Microsoft email.
4. The link will take you back to the website and you can download the software at that time, OR access the account at a later time via: https://login.microsoftonline.com

Student Services (a partial list)

- Scholarships – Spring deadline is **4pm** on Feb 5 http://www.redwoods.edu/District/scholarships/
- Math Lab – students must be registered in a Math Lab course to use the Math Lab http://www.redwoods.edu/Departments/Mathematics/MathLab.asp
- DSPS http://www.redwoods.edu/District/dsps/
- EOPS/Care http://www.redwoods.edu/eops/
- Honors Program http://www.redwoods.edu/Departments/Honors/
- Veterans Resource Center http://www.redwoods.edu/vets/

See more at http://www.redwoods.edu/services/

Math Lab Classes for Academic Support

- Math Lab classes: Math 52 or Math 252 (for students in Math 50B)

ASCR: Associated Students of College of the Redwoods:
http://www.redwoods.edu/ascr/

Some Student Clubs are listed here http://www.redwoods.edu/ascr/organizations.asp

Mathematics Placement Statement for Math 50B

We want every student to be in the right mathematics class.
Is Math 50B the appropriate mathematics class for you?

You may feel that your previous mathematics experience indicates that you should start at a higher-level course than Math 50B (Integral Calculus).

If one of the following criterion holds, then you should consult with your instructor to move to a higher-level mathematics course.

- You completed two semesters of calculus at another college.
- You earned a score of 4 or more on the AP Math BC exam.

Spring 2016 Important Dates

Math 50B meets MTTh 11:40-12:55, starting January 19, 2016, and runs 15 weeks, followed by Finals Week.

Important dates:

- Monday, January 18 – Martin Luther King, Jr. *Holiday* – No CR Classes, Campus Closed
- Friday, January 29 – Last Day to Drop and Receive a Refund
- Friday, February 5 – CR Scholarship Deadline (4pm)
- Thursday, February 11 – Last Day to File P/NP option (if available – not for Math 50B, though)
- Friday, February 12 – Lincoln Day – **No CR Classes** (Campus to remain open, with limited hours)
- Monday, February 15 – Washington/Presidents Day *Holiday* – **No CR Classes**, Campus Closed
- Thursday, March 3 – Last Day to Petition to Graduate or Apply for Certificate
- Week of March 14-19 – *Spring Break* – **No CR Classes** (Campus to remain open, with limited hours)
- Thursday, March 31 – Cesar Chavez Day (State Holiday) – ***CR Classes will meet on this day***
- Friday, April 1 – Last Day for Student-Initiated Withdrawal (no refund, and get a "W")
- Saturday, April 23 – Humboldt Math Festival (at Bayshore Mall, 10am-2pm)
- **Finals Week: May 7-13**
- **Commencement: Saturday, May 14 (in Eureka)**

Math 50B Integral Calculus

Information follows in the following sections:

1. About Calculus
2. Materials you will need
3. Course Content Organization
4. Course Requirements
5. Homework
6. Creating Your Own Personal CALCULUS REFERENCE BOOK
7. Grading Information
8. Tentative Plan

1. About Calculus

cal·cu·lus (/kalkyələs/)
noun

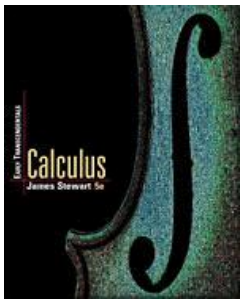
1. the branch of mathematics that deals with the finding and properties of derivatives and integrals of functions, by methods originally based on the summation of infinitesimal differences. The two main types are *differential calculus* and *integral calculus*.
2. MathematicsLogic : a particular method or system of calculation or reasoning.

Calculus is the mathematical study of behaviors of functions – in particular, rates of change and how things change. It is extremely important to have good algebra skills, because then you can focus on the new material.

You will need to learn (a la Bloom):

- Knowledge
    - Definitions
    - Types of Series
    - Different Integration Methods
- Comprehension
    - How related things compare (similarities, differences)
    - What different things mean or tell us
    - How to interpret summary information
    - How to make predictions based on limited information
- Application
    - How to apply what you know to new situations
    - How to make good use of information
    - How to solve problems, combining together what you have learned
- Analysis
    - How to make inferences from analysis of complex information
    - Recognizing importance and significance of component parts
- Synthesis
    - How to understand a situation and pull together all that you have learned, to reach appropriate conclusions and inferences
- Evaluation
    - How to look back to assess what was done (by you or others) and evaluate the results

2. Materials you will need:



- **Required Text**: ***Calculus - Early Transcendentals***, 5th Edition, by James Stewart - McMaster University, ISBN #0534393217 (with Tools for Enriching Calculus Video CD-ROM and BCA Tutorial). 2003. Brooks/Cole, a division of Thomson Learning, Inc. The text is available in the CR Library and may be checked out for the entire semester. You can also buy your own copy online very inexpensively.
  - **Recommended:** **Student Solutions Manual** (ISBN 0534393330 / 978-0534393335); **Study Guide** (ISBN 0534393314 / 9780534393311)
- **Graphing Calculator**: A Graphing Calculator, such as a TI-83 Plus, TI-84, or TI-89. A limited number are available **for rent** – in the Math Lab, ASC 101, CR Eureka Campus.
- **Bound Notebook with Grid Paper**: Roaring Spring #77475 or Ampad #26-251 (about $2 - $6), for example. Check to make sure it is **bound** and has **graph paper** in it. You will use this to build yourself a reference book (see the "Reference Book Information" also).
- **Time. Lots!!** In your own weekly schedule, please block out at least 15 more hours *(possibly as much as 20 hours)*, per week, to devote to this class.
- **Supplemental Handouts**. There will be lots of handouts some of which you may have to print from "myCR". It is your responsibility to make sure that you get a copy of all supplemental material, even if you miss class.
- **Paper**: Homework Paper and scratch paper, lots of it! It is fine with me if you RE-USE paper. Paper that's only been used on one side is still fine (in general) on the other side. You will also need some graph paper. Get it in a pad or a package of loose-leaf sheets (rather than stuck in a notebook), or print it from the web. Many people find it helpful to get graph paper with heavier lines on every fifth line to make counting easier.
- **Pencils**: Lots. Math problems should be done in pencil in this class (as in math classes in general). If you like softer lead (I find it writes darker easier) then you might like "2B" mechanical pencil lead (I prefer "2B" to "HB" which I find not as easy to work with).
- **Erasers**: At least one.
- **A ruler**: Important for drawing tables and graphs carefully and correctly.
- **Computer Access** for:
  - **Email:** I expect you to have regular access to a computer and expect to be able to contact you easily. The College uses your "mycr.redwoods.edu" email address to communicate with you so it is important that you receive those email messages; you can set it up to autoforward those emails to another email address if you prefer.
  - **"Canvas" for course materials**. We will have some course materials available using Canvas. (This is separate from your email but you need access to a computer for this also.)

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3. Course Content Organization:

The material will be grouped into four "Learning Units" with a Unit Exam at the end of each of Units 1, 2, and 3, and a Final Exam at the end of the term, which will be comprehensive. Tentative Content Organization:

- Unit 1: Laying the Groundwork – Fundamental Theorem of Calculus (5.3-5.6), Antiderivatives (4.10), Taylor Polynomials introduction (3.11), Some integration methods (5.5, 7.2, 7.4), Areas (6.1), Parametric and Polar curves (10.1, 10.3), Sequences and Series (11.1, 11.2).
- Unit 2: Digging Deeper – Volumes (6.2, 6.3), More integration methods (7.1, 7.3, 7.8), Calculus with parametric and polar (10.2, 10.4), Series tests (11.3, 11.4, 11.5).
- Unit 3: More Series Tests (11.6, 11.7), Power Series (11.8), More Integration Techniques (7.5, 7.6, 7.7), Arc Length and Surface Area (8.1, 8.2), Differential Equations (9.1-9.3, 9.6, 9.7).
- Unit 4: More with Power Series (11.9-11.11), more with Differential Equations (9.4-9.5), and maybe Work (6.4), and Average Value (6.5) and other applications (8.3, 8.4).

The Final Exam is comprehensive (scheduled for Monday, May 9, 10:45am-12:45pm).

4. Course Requirements (*subject to change with fair notice*):

Participation in Class Activities: Attendance and participation are essential to the learning process. In addition, everyone benefits from your input and participation, and some work we do will be in groups! One important aspect of this course is the incorporation of active learning in class; this requires everyone's participation, particularly during in-class activities. Also, the best way to insure having a successful experience in any course is to come to every class meeting and keep up with the assignments. There will often be handouts during class to be turned in at the end of class. If you miss more than four class sessions, you may be dropped from the course.

I realize that sometimes things come up and getting to class is impossible. In those cases, just communicate with me as soon as you possibly can. This is especially important if you are missing class on a day we are scheduled to have an exam!

Note that ALL students remain responsible for ALL assignments given and those assignments are expected to be turned in ON TIME. If you miss a class, the assumption is that you will get the necessary information to complete the assignment by the due date and be prepared to continue in the normal flow of the course.

CAUTION: the material builds from one week to the next and so
IT IS STRONGLY URGED THAT ALL STUDENTS ATTEND ALL CLASSES.

Problem Sets, assigned from the textbook: Problems will be assigned every class. There will be "Practice Problems" and "Written Problems" – "Basic" and "Advanced" – (see "Homework"). Work neatly and legibly. There will not be time for problems to be graded carefully, so it is very important that you check your own work before turning it in, and ask questions if you want to make sure you are on the right track.

Pop Quizzes: There may be pop quizzes. You should always bring a pencil with you to class each day to be ready for a quiz. Bring your reference book (which may be allowed for some quizzes).

Other assignments: There will be some assignments other than problems from the book. Some will be explained on handouts, some will be writing assignments, and some will be done in class. Also you will build your own Math Reference Book throughout the course.

Reference Book: Each student is required to create his/her own personal Math Reference Book throughout the term. It should be made in a bound notebook. It should have a title page at the front, followed by a table of contents. The contents should include material learned in the course. For the most part, it is up to you to decide exactly what to include, though there will be a few items I will direct you to be sure to include. Each page should be one separate topic. Suggestion: note the ***textbook*** page # to refer back to, if needed.

Exams: There will be three exams amid the term and a Final Exam during finals week. The Final Exam will be comprehensive and will be given in two parts: For one part you will be able to refer to your own Reference Book which you will be making throughout the term. About a week before each test you will be provided with a study guide for the exam. You do not need scantrons. You should always bring pencils, erasers, and your Reference Book (for grading) on test days, ***tentatively*** Feb. 11, March 10, April 12, and the final exam is scheduled for May 9.

Final exam official date and time: Monday May 9, 10:45am-12:45pm, during finals week.

HELP?! If you have questions, please get help! It is ***your*** responsibility to seek help if you need it. We will go over some questions in class, but we will not have enough time to answer all of everyone's questions.

DUE DATES and LATE WORK: Caveat on "due dates": While we are, by necessity, confined within a certain time framework, it is important to me that you understand the material – given that, if you have made progress on an assignment but are having trouble completing it by the due date, communicate with me to make appropriate arrangements.

5. Homework — *What, When, Why, How?*

There will be a homework assignment associated with essentially each class meeting. In general, work to finish your homework before the next class meeting, but if you have questions, you will be allowed to turn in your homework two classes after it is assigned. Since this could result in overlaps of assignments, you must be very careful to keep your assignments clearly labeled, but this system allows you to ask for clarification, if needed, so that you can then finish up that assignment and still turn it in – and understand it.

The purpose of having you do homework exercises is

(1) to give you practice with a variety of problems, and
(2) to help you to learn to write responses correctly, and
(3) to help you get some feedback so that you know what you are doing right and what you need to improve on. Note: you should always check your answers in the back of the book.

I will usually assign problems that have answers in the back of the book so that you can check your work as you go along and get help when you need to. Generally, we will go over a few problems in class, but if you still have more questions, then please be sure to seek out help from me or from others, outside of class time.

There will be two categories of homework problems assigned: "Practice" and "Written." The "Practice Problems" ("PP") are just that – for you to get more Practice. It is ok for these to look like scratch work. You do not need to spend time "making these pretty." The "Written Problems" should be nice and neat and "pretty," though. Since problems can be extremely time-consuming, there will be "Basic" and "Advanced" Written Problems. Everyone is expected to do "Basic" problems to pass the class. You only need to do "Advanced" problems if you want a grade of B- or higher.

Here are some very general instructions for how I want you to do your homework:

1. When you turn in your homework, turn in the "Practice Problems" (PP) separately from the "Written Problems." Within each category (PP or Written), make sure that the problems are in the correct order. Do not run the problems into each other – each problem should be clearly marked and easy to find.

2. Label each homework assignment clearly in the center at the top with the assignment number: "HW #1 – PP" or whatever it is.

3. At the top <u>right</u> side of the page, write <u>your name</u> and "Math 50B" and the date.

4. Use pencil, and erase carefully when necessary.

5. Label each problem clearly, and paraphrase the question – you do not need to copy all the words of the question exactly as it is in the book, but you should write enough of the directions so that anyone looking at it (without the book in front of them) has an idea what this problem is about.

6. Show some work – do not just turn in a list of answers. "PP" problems can look like scratch work, but it is extremely rare that you can get an answer without writing down any intermediate steps. "Written" problems should be written neatly so that your work can be followed easily.

7. Work down the page (two columns is OK) – Each problem should be below the previous (not next to it).

8. Check any answers that you can in the back of the book before turning it in. It is your responsibility to check your work and get help if and when you have questions.

6. Creating Your Own Personal CALCULUS REFERENCE BOOK

During the term, you will create your own personal Calculus Reference Book. If you have one from a previous class (such as Math 50A) and you wish to continue using that book for this class, it is fine as long as your book has a Title Page and a Table of Contents that corresponds with your contents.

In your Reference Book, you will write definitions, examples, and instructions of things that we learn in this class. This book will be useful to you throughout this course, and especially in other math and science courses you take!

You will be allowed to use your Reference Book on our "Reference Book Quizzes" as well as when you are studying and working on your homework, of course, and on part of the Final Exam.

- Get a bound notebook with grid paper in it (sometimes called "quad ruled"). Composition books are about $2 to $4 dollars and are sold at the CR and HSU bookstores, Staples, and other places. *IMPORTANT: Let me know if you cannot find one (apparently supplies are low in local stores).*

- Make a Title Page. The first page of the book (a right-side page) should be made into a title page. Create a title for your book, and include identifying information so it could be returned to you if lost/found.

- Start the Table of Contents. On the top of the **next** page (right side) write "Table of Contents" and reserve the next several pages for your Table of Contents to grow into. Skip at least 4 pages – more if your writing is large or if you anticipate entering particularly detailed information in your "T O C."

- Page 1. The first page that you write actual content information on should be numbered "1".

- Number the following pages. Number the pages, either odd and even on front and back, or you might prefer to number just the right-side pages 1, 2, 3, and so on, leaving the left sides blank at first.

- Enter information regularly as you study and do your homework. Keep just one basic topic on each page, even if you don't fill up every page. The important thing to remember is to make this useful for yourself, so that a year from now (for example), you will be able to find whatever you look for easily. (Write the page number of the corresponding information in the textbook, or cite the source of the information.)

- As you add information, write corresponding entries in the T O C, listing the number of the corresponding page ***in your reference book*** to the **right** of the T O C entry.

- What to write: At times, I will direct you to include specific information in your Reference Book. Also, as you study, go over your class notes and read corresponding material in the text, synthesize important information and put it into your Reference Book. Definitions and explanations in your own words will be easier for you to understand later. Include examples and pictures, too.

Your Reference Book will be graded several times during the term. Correctness will be spot-checked (due to lack of time – not for lack of interest!). The Reference Books are graded on three areas: completeness, general correctness, and presentation.

7. Grading information (*subject to change with fair notice*)

To pass the class (i.e., **not** get an "F"), all the following requirements must be met:

- In-class assignments – at least 60% of assignments completed satisfactorily
- Homework Exercises assigned from the textbook:
  - complete at least 70% of the "Practice Problems" and a majority of "basic" problems assigned, in a legible, satisfactory way
  - Other Assignments* – complete a majority of assignments
- Exams/Quizzes –at least 60% correct
- Reference Book – reference book must exist

To get at least a "C-" you must do all of the following:

- In-class assignments – at least 60% of assignments completed satisfactorily
- Homework Exercises assigned from the textbook:
  - complete at least 80% of the "Practice Problems" and at least 70% of "basic" problems assigned, in a legible, satisfactory way
  - Other Assignments* – complete at least two-thirds of assignments
- Exams/Quizzes – at least 65% correct
- Reference Book –reference book covering basics of the material covered

To get at least a "B-" you must do all of the following:

- In-class assignments – at least 80% of assignments completed satisfactorily
- Homework Exercises assigned from the textbook:
  - complete at least 90% of the "Practice Problems" and 80% of "basic" problems assigned, in a legible, satisfactory way
  - work on at least some of the "advanced" problems
  - Other Assignments* – complete at least 80% of assignments
- Exams/Quizzes – at least 75% correct
- Reference Book – Good reference book covering over ½ of the material covered

To get at least an "A-" you must do all of the following:

- In-class assignments – at least 90% of assignments completed satisfactorily
- Homework Exercises assigned from the textbook:
  - complete at least 90% of the "Practice Problems" and 90% of "basic" problems assigned, in a legible, satisfactory way
  - work on at least half of the "advanced" problems satisfactorily
  - Other Assignments* – complete at least 90% of assignments
- Exams/Quizzes – at least 85% correct
- Reference Book – Excellent reference book representing over ¾ of the material covered

To determine +/- grades, the entire class spread will be considered at the end of the term.

* Other assignments: There will be some assignments other than problems from the book. Some will be explained on handouts, some will be writing assignments, and some will be done in class.

CAVEAT: The above procedures are subject to change.

8. TENTATIVE PLAN

Calculus: Early Transcendentals, 5th Edition, James Stewart - McMaster University
ISBN-10: 0534393217 ISBN-13: 9780534393212, 1320 Pages Casebound, Published © 2003

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A Preview of Calculus	**2**	**1**			
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Writing Project: Newton, Leibniz and the Invention of Calculus	413				
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7.5 Strategy for Integration	505			3	
7.6 Integration Using Tables and Computer Algebra Systems	511			3	
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8. FURTHER APPLICATIONS OF INTEGRATION	**546**				
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Discovery Project: Arc Length Contest	554				
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8.4 Applications to Economics and Biology	571				4
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9.3	Separable Equations	601			3	
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9.4	Exponential Growth and Decay	611				4
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9.5	The Logistic Equation	623				4
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9.7	Predator-Prey Systems	638			3	
	Review	644				
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10. PARAMETRIC EQUATIONS AND POLAR COORDINATES		**650**				
10.1	Curves Defined by Parametric Equations	651	1			
Laboratory Project: Families of Hypocycloids		659				
10.2	Calculus with Parametric Curves	660		2		
Laboratory Project: Bezier Curves		669				
10.3	Polar Coordinates	669	1			
10.4	Areas and Lengths in Polar Coordinates	679		2		
	Review	696				
Problems Plus		699				
11. INFINITE SEQUENCES AND SERIES		**700**				
11.1	Sequences	701	1			
Laboratory Project: Logistic Sequences		713				
11.2	Series	713	1			
11.3	The Integral Test and Estimates of Sums	723		2		
11.4	The Comparison Tests	730		2		
11.5	Alternating Series	735		2		
11.6	Absolute Convergence and the Ratio and Root Tests	740			3	
11.7	Strategy for Testing Series	747			3	
11.8	Power Series	749			3	
11.9	Representation of Functions as Power Series	754				4
11.10	Taylor and Maclaurin Series	760				4
Laboratory Project: An Elusive Limit		772				
11.11	The Binomial Series	772				4
Writing Project: How Newton Discovered the Binomial Series		776				
11.12	Applications of Taylor Polynomials	776				
Applied Project: Radiation from the Stars		785				
	Review	786				
Problems Plus		789				
Shaded	indicates might not be covered this semester					