### Instructor
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### Phone
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### Lecture Hours
MWF 8:00am–8:50am, NDSU Ladd Hall, Rm 107

### Office Hours
MWF 12:00pm–1:00pm (or by appointment)

### Textbook

### Prerequisites
MATH 165: Calculus I

### Course Description
Applications and techniques of integration; polar equations; parametric equation; sequences and series, power series.

### Course Objectives
This course is a continuation of Calculus I, and as such it builds heavily on the material from Calculus I, especially on the notions of limit, derivative and integral. In Calculus II the students will be exposed to the further theory of definite integral. Also, in addition to differentiation and integration, a third big subtopic of Calculus — the theory of sequences and series, including power series, will be treated. Upon completion the course, the students will be able to understand both the theory and applications of integration, sequences and series, polar coordinates, and parametric equations. Through practice and computational problems the students will learn how to apply Calculus to many real world problems.

### Class Attendance
According to NDSU Policy 333 (www.ndsu.edu/fileadmin/policy/333.pdf), attendance in classes is expected. The students are solely responsible for missed handouts or announcements made during the lectures. Students who miss more than 20% of classes or more than 20% of assignments prior to the Last day for no-record Drop of classes may be administratively dropped from the course at the discretion of the instructor.

### Homework
There will be two types of homework. First, after each class two or three problems will be assigned from the textbook for the students to practice the material. These problems will not be collected and graded. Also, once a week, there will an online homework through WeBWorK, the instructions will be communicated on the first day of classes.

### Quizzes
Once a week (with some exclusions), during a recitation, there will be a quiz covering the material studied previously. There will be no make-up for the quizzes, and the two lowest results will be dropped before the final grading.
There will be three midterm in class tests. Each test is 50 minutes long and cover the material of a specific section of the course. No books or calculators are allowed. A standard 8 1/2 by 11 sheet paper with the students notes is allowed (one side only). The students are required to bring a clean blue book for each test. In addition to the three midterm tests there will be final comprehensive exam on Thursday, May 10th at 8:00am. The final exam is 2 hours long and cover the material of the whole semester. No books or calculators are allowed. A standard 8 1/2 by 11 sheet paper with the students notes is allowed (front and back). The students are allowed to bring a clean blue book for the final exam. Make-ups for the exams are possible in case of a legitimate (documented) excuse. Please contact me well in advance to arrange for a make-up.

Calculators

Calculators (including the cell phones) will not be allowed during the tests and exams.

Grading

The grading of the course will be based on the WeBWorK homework (10%), midterm tests (each 15%), regular weekly quizzes (15%), and the final exam (30%). The final grade will be A/B/C/D/F with the thresholds 90/80/70/60.

Academic Responsibility and Conduct

The academic community is operated on the basis of honesty, integrity, and fair play. NDSU Policy 335: Code of Academic Responsibility and Conduct applies to cases in which cheating, plagiarism, or other academic misconduct have occurred in an instructional context. Students found guilty of academic misconduct are subject to penalties, up to and possibly including suspension and/or expulsion. Student academic misconduct records are maintained by the Office of Registration and Records. Informational resources about academic honesty for students and instructional staff members can be found at www.ndsu.edu/academichonesty.

Any student found guilty of academic dishonesty will receive a grade of 0 for the homework assignment, or quiz, or test, or exam in question. In addition, every such student will be reported to the Chair of Mathematics, the Dean of their major college, the Dean of the College of Science and Mathematics, the Provost, and the Registrar. The Registrar will add any such student to NDSU’s Student Academic Misconduct Database. (Multiple entries in this database may result in additional sanctions from NDSU.)

Special Needs

Any students with disabilities or other special needs, who need special accommodations in this course, are invited to share these concerns or requests with the instructor and contact the Disability Services Office (www.ndsu.edu/disabilityservices) as soon as possible.

Schedule

Note: This is a tentative schedule and subject to a change. Week 1 starts on Tuesday, December 9th.

Week 1-2. Review of Calc I material. Applications of the integral. (Sections 6.1-6.3)

Week 3-4. Applications of the integral. (Sections 6.4-6.5) Techniques of integration. (Section 7.1)

Week 4-6. Techniques of integration (Sections 7.2-7.5)

Week 7-8. Techniques of integration. (Sections 7.6-7.9)

Week 9-11. Further applications of the integrals. (Sections 8.1-8.4) Spring break.

Week 12-13. Infinite series. (Sections 10.1-10.4)

Week 14-15. Infinite series. (Sections 10.5-10.7)

Week 16-17. Parametric equations. Polar coordinates. (Sections 11.1-11.5).