0701M230
Calculus II

Instructor: TBA
Time: Monday through Friday (June 15, 2020 - July 17, 2020)
Office Hours: 2 hours (according to the teaching schedule)
Contact Hours: 60 (50 minutes each)
Credits: 4
Location: Huiquan Building
Office: Huiquan Building 518
E-mail: TBA

Course Description

Techniques of integration, applications of integration, sequences and series, power series and Taylor series, parametric equations and polar coordinates.

Required Textbook(s)

Calculus, 11e (2016)
by Ron Larson and Bruce Edwards
Selected sections from Chapters 5-10 will be covered.

Prerequisites

We assume students are familiar with the standard content of a calculus I course for scientists and engineers. This includes the study of limits, derivatives, optimization of functions of a single variable, using derivatives to sketch graphs, antiderivatives and the method of substitution, definite integrals and Riemann sums, and the fundamental theorem of calculus. Moreover, they should have studied this material in the context of algebraic, exponential, logarithmic, and trigonometric functions.

Course Hours

The course has 25 sessions in total. Each class session is 120 minutes in length. The course meets from Monday to Friday.

Course Schedule

Please note that the schedule is meant to give an overview of the major concepts this course. Changes may occur in this calender as needed to aid in the student`s development.

15 Monday	Inverse Trigonometric Functions:derivatives (5.7), Inverse Trigonometric Functions: integration (5.8)
16	Hyperbolic Functions (5.9), Indeterminate forms and L'Hopital Rule (5.6)
17	Basic Integration (8.1), Integration by parts (8.2), QUIZ 1
18	Integration by parts (8.2), Trigonometric Integrals (8.3), Trigonometric Substitution (8.4)
19	Review and TEST 1
22 Monday	Partial Fractions (8.5), Numerical Integration (8.6)
23	Improper Integrals (8.8), Area Between Curves (7.1)
24	Disk Method (7.2), Shell Method (7.3), QUIZ 2
25	Arc Length and Surface of Revolution (7.4), Work (7.5)
26	Review and TEST 2
29 Monday	Center of Mass (7.6), Fluid Pressure and Force (7.7)
30	Sequences (9.1)
1	Series and Convergence (9.2), QUIZ 3
2	Integral Test and p-Series (9.3), Comparison of Series (9.4)
3	Review and TEST 3
6 Monday	Alternating Series (9.5), Ratio and Root Test (9.6)
7	Ratio and Root Test (9.6), Power Series (9.8)
8	Representation of Functions by Power Series (9.9), Taylor and Maclaurin Series (9.10), QUIZ 4
9	Taylor and Maclaurin Series (9.10), Plane Curves and Parametric Equations (10.2)
10	Review and TEST 4
13 Monday	Parametric Equations and Calculus (10.3), Polar Coordinates and Graphs (10.4)
14	Area and Arc Length in Polar Coordinates (10.5)
15	Comprehensive Review for Final Exam
16	Final Exam
17	Final exam Solutions and further discussions

Course Requirements

Calculators

No calculators may be used on tests. Cell phones must be turned off and put away during tests.

Assignments and Graded Work

Homework: Each Monday you will be given a homework. These home works will not be graded. However, some of the questions of the home works will be used in the weekly Quizzes.

Attendance and in-class work: Attendance is mandatory and students are expected to be in class every day for the full class period. We will be covering a lot of material very quickly, so if you get behind it will be very difficult to catch up. We will spend some time in class working on problems in groups. These will not be graded but your participation is expected.

Make-Ups

This class will go by very quickly. I strongly recommend that you never miss class, since it will be very hard to make up the material you missed and, since mathematics is cumulative, you will run the risk of getting hopelessly behind. However, I understand that life happens, so up to two missed classes will not count against you. If you miss a midterm with an excellent documented reason and the professor' approval, you have only the following weekday to make up (Test maybe different from the actual test).

Grading Policy

Weekly Quizzes (4)	30%
Weekly Tests (4)	40%
Final Exam	30%
Total	**100%**

Grading Scale

The instructor will use the grading system as applied by JNU:

Definition	Letter Grade	Score
Excellent	A	90~100

Good	B	80~89
Satisfactory	C	70~79
Poor	D	60~69
Failed	E	Below 60

Attendance

Attendance is mandatory in the class. It would be recorded each class and forms part of students' participation record. Students should inform the instructor at the earliest opportunity if they need to ask for a leave. All absences may have negative effect on students' final grades. Any students with more than three unexcused absences will automatically fail the course.

Academic Integrity

As members of the Jinan University academic community, students are expected to be honest in all of their academic coursework and activities. Academic dishonesty, includes (but is not limited to) cheating on assignments or examinations; plagiarizing, i.e., misrepresenting as one's own work any work done by another; submitting the same paper, or a substantially similar paper, to meet the requirements of more than one course without the approval and consent of the instructors concerned; or sabotaging other students' work within these general definitions. Instructors, however, determine what constitutes academic misconduct in the courses they teach. Students found guilty of academic misconduct in any portion of the academic work face penalties that range from the lowering of their course grade to awarding a grade of E for the entire course.