Passaic County Community College
Academic Year: 2023-2024
Standard Syllabus

Department Chair: Janet Delaney
Program Coordinator: Kristina Fleming

Course Code: MA 201 **Course Title:** Calculus III

Department: Mathematics **Semesters Offered**: Fall, Spring

Course Description: This course is a continuation of MA 121. Emphasis is placed on the study and application of power series, polar coordinates, multivariable functions, vector valued functions, partial derivatives, multiple integration, and vector calculus.

Prerequisites: MA 121

Credits: 4 **Lecture Hours:** 4 **Lab/Studio Hours:** 0 **Clinical/Fieldwork Hours:** 0

Required Textbook/Materials: Calculus by Anton; **Some sections of the course may use Open Educational Resources*

Additional Time and Supplemental Requirements: Based on a 15 week semester, students are required to spend an additional 8 hours per week on assignments outside of class time.

Course Learning Outcomes: Upon successful completion of this course, students will be able to:

- Approximate functions by power series.
- Perform calculus operations on power series.
- Express curves in the plane in alternate ways (polar, parametric).
- Perform calculus operations on vector valued functions in 2- and 3-space.
- Perform calculus operations on multivariable functions.
- Evaluate a line integral.
- Use the methods of calculus to solve application problems.
- Solve mathematical problems using appropriate technological tools.

General Education Outcomes: This is not a general education course.

Grading Standard: Final evaluation of class performance will be based on the following:

Participation	5%
Homework	10%
Tests	60%
Final Exam	25%
Total	100%

**Subject to change or could vary slightly by course section*

Course Content:
Schedule and suggested topics, readings, and assignments subject to change based on instructor and instructional resource)

- Power Series: MacLaurin, Taylor; Differentiation/Integration
- Parametric and Polar Curves
- Three-Dimensional Space; Vectors
- Vector-Valued Functions
- Partial Derivatives
- Multiple Integrals
- Topics in Vector Calculus: Vector Fields, Line Integrals & Green's Theorem

Department Policies:

ACADEMIC HONESTY POLICY – The Mathematics department at Passaic County Community College highly values the honesty and the integrity of each student while helping them to pursue their academic goals. All students must abide by the following academic honesty policy. Students are expected to be honest and ethical at all times in their completion of any coursework. Any dishonesty will not be tolerated in this course. This includes, but is not limited to, cheating, plagiarizing, facilitating acts of academic dishonesty by others, having unauthorized possession of examinations, submitting work of another person, or obtaining solutions from any website or outside source. Students who are found to be dishonest will receive academic sanctions, such as an "F" grade on the assignment or exam, and the instructor will reserve the right to report the incident to the Academic Affairs Office for possible further disciplinary action.

CALCULATOR POLICY – Graphing calculators without symbolic operations ability are permitted in any calculus sequence course. Therefore, permitted calculators include TI-83, TI-83 Plus, and TI-84. TI-84 Plus and higher (including the TI n-spire) calculators are not permitted. Cell phone calculators are also not permitted. The instructor reserves the right to limit the use of the calculator on certain course assessments.

College Policies:

For Information regarding:

- PCCC's Academic Integrity Code
- Student Conduct Code
- Student Grade Appeal Process

Please refer to the PCCC Student Handbook and PCCC Catalog

Panther Alert:

The College will announce delayed openings, closings, and other emergency situations through the Panther Alert System. Students are encouraged to sign up for Panther Alert Notifications by logging into their student accounts through the PCCC website at www.pccc.edu and following Panther Alert System instructions.

Notification for Students with Learnings Disabilities:

If you have a disability, and believe you need accommodations in this class, please contact the Office of Accessibility Services at 973-684-6395, or email ods@pccc.edu. You should do so as soon as possible at the start of each semester. If you require testing accommodations, you must remind me (the instructor) one week in advance of each test.