

Math 141-003

Calculus with Analytic Geometry II

Thomas R. Cameron
Assistant Professor of Mathematics
+1 814-898-6327
trc5475@psu.edu
www.thomasrcameron.com

Course Information

Course Time:	M, W, Th, F: 8:00 – 8:50 am	Office Hours:	W, W, F: 10:00 – 11:30 am; T: 12:00 – 1:30 pm
Course Location:	OBS 121	Office Location:	Benson 87

Textbooks and Software

Calculus: Early Transcendental Functions, 8th Edition, Larson and Edwards, ISBN 13: 9780357759325
Desmos <https://www.desmos.com>

Course Format

As Paul Halmos noted, “The only way to learn mathematics is to do mathematics.” Hence, we will spend the majority of our in-person class time doing mathematics. In particular, there will be a balance between lectures and class exercises, which are completed in the form of worksheets.

Learning Outcomes

Upon successful completion of the course, students will be able to

- Compute the area between curves, volume of regions, and arc length.
- Evaluate integral using basic methods, integration by parts, trig substitution, and partial fraction decomposition.
- Evaluate improper integrals and explain applications thereof.
- Define sequences and series, show divergence or convergence of sequences and series, evaluate sequences and series.
- Define Taylor Polynomials and Series and use to approximate functions and derive Newton’s method.
- Define Power Series and use to approximate functions.
- Explain when and how to differentiate or integrate the power series representation of a function.
- Define and apply conic equations, parametric equations, and polar coordinates.
- Define multivariable functions and describe how to evaluate limits, continuity, and derivatives.

Grading Policy

Your final grade is broken up as follows.

Category	Percentage
Homeworks	15%
Worksheets	20%
Exams (10% each)	40%
Final Exam	25%

Your final letter grade is based on the following scale.

Grade	Percentage Interval	Grade	Percentage Interval
A	[93, 100]	C+	[77, 80)
A-	[90, 93)	C	[70, 77)
B+	[87, 90)	D	[60, 70)
B	[83, 87)	F	[0, 60)
B-	[80, 83)		

Assignment Descriptions

Homeworks

To help develop a mastery of the material, students will be given several homework assignments which cover the material in greater depth. The students are expected to write out their answers with an appropriate amount of work shown. If the student has an excused absence, they will be given additional time to complete the assignment. However, the student must communicate with the instructor prior to the assignment deadline.

Worksheets

Worksheets are given each day to complement the lecture material. Some worksheets will be completed in class; others, will be completed at home and turned in the following class period. Students who are absent from class are expected to complete the worksheets on their own and turn in the following class period.

Exams

We will have 4 exams throughout the semester. These exams are intended to test your general understanding of the concepts covered up to that point, with a heavy emphasis on the main definitions, theorems, and problem solving methods. These exams will be administered in class; only those with an excused absence will be given additional time to complete the exam. Again, the student must communicate with the instructor prior to the exam date.

Final Exam

A comprehensive final exam will be given during finals week. The final is administered in person; only those with an excused absence will be given additional time to complete the exam. Again, the student must communicate with the instructor prior to the exam date.

Attendance Policy

Class attendance is highly encouraged and partially monitored through daily worksheets. In the case of an excused absence, e.g., illness, athletic contests, and job interviews, students will be given a reasonable amount of time to makeup an exam or assignment. However, they are responsible of notifying the instructor prior to the absence. In the event of a longterm absence, we recommend the student contact Student Affairs about the possibility of a withdrawal for the semester.

Academic Integrity

Academic integrity is a basic guiding principle for all academic activity at the University, and all members of the community are expected to adhere to this principle. Specifically, academic integrity is the pursuit of scholarly activity in an open, honest, and responsible manner. It includes a commitment not to engage in or tolerate acts of falsification, misrepresentation, or deception. Such acts violate the fundamental ethical principles of the University community and undermine the efforts of others.

Violations of academic integrity are not tolerated at Penn State Behrend. Violators will receive academic sanctions and may receive disciplinary sanctions, including the awarding of an XF grade. In cases such as these, an XF grade is recorded on the transcript and states that failure of the course was due to an act of academic dishonesty. All acts of academic dishonesty are recorded so those repeat offenders can be sanctioned accordingly.

For more information:

<https://behrend.psu.edu/academics/academic-services/academic-integrity-students>

Disabilities and Learning Differences

Penn State is firmly committed to providing full access to its programs and services for all individuals. The University encourages academically qualified students with disabilities to take advantage of the educational programs and accommodations offered at Penn State Behrend.

For more information:

<http://behrend.psu.edu/student-life/educational-equity-and-diversity/student-resources/students-with-disabilities-and-learning-differences>

■ Educational Equity Concerns

Penn State takes great pride in fostering a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, harassment, and/or incivility due to age, ancestry, color, disability, gender, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity at the Report Bias site:

<https://equity.psu.edu/reportbias>

■ Educational Equity Concerns

Penn State takes great pride to foster a diverse and inclusive environment for students, faculty, and staff. Acts of intolerance, discrimination, harassment, and/or incivility due to age, ancestry, color, disability, gender, national origin, race, religious belief, sexual orientation, or veteran status are not tolerated and can be reported through Educational Equity at the Report Bias site:

<https://equity.psu.edu/reportbias>

■ Counseling and Psychological Services

Students with academic concerns related to this course should contact the instructor in person or via email. Students may also occasionally have personal issues that arise in the course of pursuing higher education that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the Penn State Behrend Personal Counseling Services at (814) 898-6504.

For more information:

<https://behrend.psu.edu/student-life/student-services/personal-counseling>

■ Copyright of Class Materials

You may not share any information from this course (including notes and assignments) with others who are not currently registered for the course, nor post such information electronically without the permission of the instructor—this includes online note-taking/note-sharing services (See Penn State Administrative Policy AD-40). Also prohibited in the policy is the posting of audio, video, or photographs posted to social media sites or other publicly accessible resources. Unless you have my permission, you risk disciplinary sanctions.

■ Title IX

Penn State is committed to fostering an environment free from sexual or gender-based harassment or misconduct. The Office of Sexual Misconduct Prevention and Response ensures compliance with Title IX, a federal law that prohibits discrimination based on the sex or gender of employees and students. Behaviors including sexual harassment, sexual misconduct, dating violence, domestic violence, and stalking, as well as retaliation for reporting any of these acts violate Title IX and are not tolerated. The University is also committed to providing support to those who may have been impacted by incidents of sexual or gender-based harassment or misconduct and may provide various resources and support services to individuals who have experienced one of these incidents. For more information:

<https://universityethics.psu.edu/our-expertise/title-ix>

or

<https://universityethics.psu.edu/our-expertise/title-ix/t9-resources/campus-resources/behrend>

Center for Learning Excellence

The Center for Learning Excellence offers tutoring services that can help you find gaps in your understanding of concepts, show you how to get the most out of your textbook, give you advice about how to prepare for a test, and study for the course. Free peer tutoring appointments (in person and online) can be made via Tutor Trac

<https://tutorapp.bd.psu.edu>

For more information about study abroad, scholarships/fellowships, GRE, writing personal statements and study skills, visit

<https://behrend.psu.edu/lrc>

email BDtutor@psu.edu or call 814-898-6140 from 8:00 a.m. to 5:00 p.m. Monday through Friday.

Career Services

Penn State Behrend Career Services prepares Penn State students to enter the workforce or graduate school through a variety of services. Career professionals will assist with resume and cover letter reviews, internship and job searches, interview prep and mock interviews, career fair prep, development of career competencies, and graduate school prep. You can stop by the Career Services office in Reed 125 during drop-in hours Monday-Friday, 12:00-4:00 p.m. You may also schedule an appointment through Starfish or call 814-898-6164. For more information, visit

<https://behrend.psu.edu/careerservices>

Important Dates

Classes Begin	August 25
Regular Drop Deadline	11:59 pm August 30
Regular Add Deadline	11:59 pm August 31
Labor Day	September 1
Exam 1	September 22
Final Exam Conflict Filing Period	September 29 – October 26
Exam 2	October 13
Exam 3	November 3
Late Add/Drop Deadline	November 14
Thanksgiving Break	November 23 – 29
Exam 4	December 5
Classes End	December 12
Final Exams	December 15 – 19

Disclaimer:

I reserve the right to diverge from this syllabus in the best interest of my students' learning and achievement. Any changes made will be announced in advance.