

MAT 4133 Advanced Placement Calculus BC 2

Spring 2020

Ms. Jessica Edrington

SCHEDULE: Period 9-10

12:00-12:50 MWRF

BU 203

Office: WA152

Phone: 285-7403

E-mail: jaedrington@bsu.edu

Office Hours: MWF 9:00 – 9:45
Tuesday 10:00 – 2:00, (1:00-2:00 on alternate weeks)
Thursday 10:00 – 11:50, 1:00-2:00 (afternoon on alternate weeks)
WF 2:00- 4:00 **and by appointment.**

I will also be available by email until 10pm most evenings.
Any changes to these hours will be posted outside office door.

DESCRIPTION: This course meets four days a week and covers the College Entrance Examination Board's BC syllabus in Advanced Placement Calculus. Students are encouraged to register for the AP exam and may find that their college grants them credit for up to two semesters of calculus. Topics covered in the two-semester sequence include limits, derivatives, integrals, series, vectors, and parametric equation, as well as their applications in numerous real-world problems. Treatment of these topics involves both theory and its implementation on graphing calculators.

DUAL CREDIT: Ball State University offers 4 college credit hours per semester in MATHS 165 and MATHS 166 to students who pass both semesters with a grade of at least C. Successful completion of the first course is a pre-requisite for enrollment in the second course. Enrollment to the University for credit must be done at the beginning of the fall semester.

PREREQUISITE: For seniors, excellent performance in Precalculus for AP 1-2 with teacher recommendation. For juniors, placement.

COURSE CONTENT:

Chapter 6	Slope Fields & Euler's Method; Logistics	6.1, 6.3 – 6.4
Chapter 7	Applications of Integration	7.4 – 7.5
Chapter 8	Integration Techniques, L'Hopital's Rule, & Improper Integrals	8.1 – 8.8
Chapter 9	Infinite Series	9.1 – 9.10
Chapter 10	Conics, Parametric Equations, and Polar Coordinates	10.1 – 10.5

TEXT: Larson, Hostetler and Edwards, *Calculus of a Single Variable*, eighth edition, 2006, Houghton Mifflin, ISBN 0-618-50303-X.

CALCULATOR: The TI-84 Plus calculator will be used extensively in this course. The TI-83 and TI-83 Plus calculators are similar. Use of TI-89, TI-92 and other symbolic algebra calculators will **not** be allowed for exams and quizzes in this course.

METHODS OF STUDENT EVALUATION:

Exams (50%): At the end of each unit, there will be an exam covering that material. Exams are modeled on the AP Exam and that unit's material may also include content from previous units. Dates will be announced at least one week in advance. Exams may have calculator and no-calculator sections.

Quizzes (20%): There will be approximately 7-10 short quizzes, both announced and unannounced.

Homework (10%): For nearly every section, there will be a homework assignment. It will generally be due two class periods after it is assigned. Homework may or may not be collected, but you can expect that problems from previous assignments will appear on "bell-ringers" (mini-quizzes that will be

given at the beginning of most classes) and are considered part of the homework grade. Also included in the homework grade is projects. These are extended assignments involving challenging applications and problems that will be given either as individual or group projects. Each project should include a detailed report of the methods and solution as well as the answer. Assignment specifics and due dates will be posted on Canvas.

Late Homework: One late assignment will be accepted with no penalty up to class time the next day. (Saturday and Sunday don't count; *Tuesday and Thursday do!*) Subsequent late assignments will be accepted for up to 70% credit. (Excused absences are not subject to late penalty – see your student handbook for school policy.).

Final Exam (20%): A comprehensive final exam will be given during the designated time period the week of May 4-8. As the final exam is cumulative, its score may replace one lower exam score from earlier in the semester.

The following standard overall grading scale will apply:

	92.5% - 100%	A	89.5% - 92.49%	A-	
87.5% - 89.49%	B+	82.5% - 87.49%	B	79.5% - 82.49%	B-
77.5% - 79.49%	C+	72.5% - 77.49%	C	69.5% - 72.49%	C-
	0%	- 69.49%	D*		

CLASS ATTENDANCE POLICY: Students are expected to attend every class and be on time. Academy policies on attendance and tardiness will be followed. Sleeping in class constitutes an unexcused absence. Being late more than 10 minutes is recorded as Absent. In the event of unexcused absences, make-up homework, quizzes, or exams will not be allowed. For an excused absence, assignments due that day are expected by class time the next day (not the next class day). Absence from a prior class will **not** allow the student to defer a scheduled quiz or exam.

ACADEMIC INTEGRITY POLICY: Academic dishonesty in any form is unacceptable and will not be tolerated. Students are responsible for knowing the policies and consequences as stated in the Academy handbook. For this course, cooperative group work on homework assignments is appropriate and encouraged, but copying of an assignment from another is not acceptable. Giving information about the content of quizzes or exams to students yet to take the test is a severe violation of academic honesty standards.

CELL PHONES: Cell phones and other mobile devices should not be accessed or visible in the classroom. Be sure to disable device so that it will not ring, buzz, shake, or otherwise interrupt class. Enjoy the text-free hour.

EATING IN CLASS: Eating, drinking, and chewing gum is not allowed in the classroom. Water is permitted.

LAPTOP COMPUTERS: The graphing calculator will be the primary technology in this course, and little use of laptop computers is anticipated. Computers should be closed and put away in class unless otherwise instructed.

METHODS OF COURSE EVALUATION: Evaluation, including student evaluation of the course, will be conducted according to Academy policy.

Ball State University aspires to be a university that attracts and retains a diverse faculty, staff, and student body. We are committed to ensuring that all members of the community are welcome, through valuing the various experiences and worldviews represented at Ball State and among those we serve. We promote a culture of respect and civil discourse as expressed in our Beneficence Pledge and through university resources found at <http://cms.bsu.edu/campuslife/multiculturalcenter>.