Instructor Information

Instructor: Kim Kullander
Office: IT 409
Hours: By appointment
Phone: 501-812-2200
Email: kkullander@uaptc.edu

*All emails and telephone calls will receive a response within two business days.

Chair: Denise Hammett (501)812-2874 denisehammett@uaptc.edu
Dean: Dr. Marico Bryant Howe (501)812-2342 mbryanthowe@uaptc.edu

*If your emails and telephone calls do not receive a response within two business days, the appropriate chain of command is above.

Course Information

Business Calculus – MATH 1308, MW 7:25 pm - 8:40 pm, Main Campus IT Building, Room 406

Catalog Description

3 Credit Hours (3 hours lecture per week)

This course includes, but is not limited to, the following concepts when working with various types of functions: 1) derivatives – limits, continuity, slopes, rates of change, definition of derivative, derivatives as rates of change, techniques for finding derivatives and non-differentiable functions; 2) integration – anti-derivatives, indefinite and definite integrals and techniques for finding integrals. Applications include graphing functions using derivatives and optimization. Emphasis is on applied problems in the management sciences and economics. A TI-83 or TI-84 graphing calculator is required for this course and the course requires an online learning component. See prerequisite details below. (3 credit hours)

Prerequisites: (must meet one of the following requirements)

• MATH 1300 or MATH 1302 with a grade of “C” or better
• A score of 26 or higher on the Mathematics section of the ACT
• A score of 70 or above on the COMPASS Algebra Placement Test
• A score of 86 or above on the Accuplacer College Math Placement Test
• Permission of the department chair or division dean

Course Materials

Required Materials:

Calculator: A TI-83 or 84 calculator is required for the course.
If you have been awarded financial aid but have not received funds, you can take your schedule down to the UA-PTC bookstore and they will charge your books to your account. This will allow you to purchase your book early and will alleviate you getting behind this semester.


Free Tutoring is offered on both UA-PTC south and main campus. Information provided at http://www.uaptc.edu/footer-navigation/tutoring-center

MLP Technical Support: If you are unable to install the necessary software and plug-ins or the program is not running properly, you may contact the MyMathLab Student Support Line at: 1-800-677-6337 Monday-Friday, 12 pm to 8pm. (All times are Eastern Standard Time.)

Do not contact the UA-PTC IT services department for assistance with MLP issues. Please be sure to contact the 1-800 number that was provided above.

Student MyLabsPlus Access

MyLabsPlus Web Address: http://pulaskitech.mylabsplus.com/ or you can also access the MLP link in UA-PTC’s Portal.

- Student MyLabsPlus Username: The first two letters of your first name, your entire last name, and the last four digits of your student ID.
- Student MyLabsPlus Password*: Ptcmmddyyyy (this is the letters “Ptc” and your birthdate)
  *If you have previously used MLP with UAPTC, you will need to use that password instead.

Once you’re logged into MyLabsPlus,

1. You will be prompted to accept the terms of the Pearson User License Agreement and Privacy Policy. Click I Accept once you have read the terms of use.
2. You will be prompted to enter the access code that you received with your book. If you have already purchased the book, chose “Access Now”.
3. If you do not have a code, you will choose “Pay Later”. This will give you 14 days of Temporary Access, which will begin on the day you registered in the course. This means that the temporary code could expire at different times for each student since it is based upon the date each student registers into the system. You will need to purchase your book before the temporary access code expires or you will be locked out of MyLabsPlus and you will not have access to your work which could result in zeros on assignments that were missed. **DO NOT LOSE YOUR ACCESS CODE ONCE YOU HAVE PURCHASED IT. YOU WILL NOT BE ABLE TO ENTER IT UNTIL THE TEMPORARY ACCESS CODE EXPIRES.**

If you have trouble logging in, entering your code or experience issues with not being able to access the course, please contact the Chair of the department. Her name is Denise Hammett and her email is dhammett@uaptc.edu. Please send as much information as you can about the situation including screen shots along with a good working phone number, your username and birthdate.
Mission Statement

University of Arkansas – Pulaski Technical College provides access to high-quality education that promotes student learning and enables individuals to develop to their fullest potential.

Institutional Learning Outcomes and General Education

UA-PTC supports a college-wide institutional learning assessment program which concerns effective instructional methods and promotes student learning achievement by assessing:

1. Communication
2. Critical Thinking
3. Cultural Awareness
4. Information Literacy
5. Professionalism
6. Quantitative Literacy
7. Technology Literacy

For more information, please consult the following website: [https://uaptc.edu/sla](https://uaptc.edu/sla)

Department / Program Learning Outcomes

The Mathematics department, consistent with the College’s mission and the Division’s objectives, encourages the success of its students in all technical fields and academic disciplines by promoting:

1. Critical and mathematical thought
2. Academic Integrity
3. Independent thinking and learning
4. Quantitative and technological literacy on a collegiate level.

Student Learning / Course Outcomes

The student will:
1. Calculate rates of change and limits; know the definition of a limit.
2. Calculate the derivative of a function using the definition, differentiation rules and formulas.
3. Recognize functions that are not differentiable.
4. Apply various techniques of integration. Evaluate indefinite and definite integrals using the various techniques of integration.
5. Use differentiation and integration techniques to solve problems in the management sciences and economics; use the calculator to solve these problems.
Policies

Report a Complaint or Concern
UA-PTC takes very seriously complaints and concerns regarding the institution. Most complaints or concerns of a specific nature should be initiated and resolved at the campus level through normal college processes whenever possible. UA - Pulaski Technical College receives and resolves complaints using a variety of methods. To report a complaint or concern, please follow the link.
https://www.uaptc.edu/report-a-concern-complaint

UA-PTC Attendance Policy
Education at UA-PTC requires students’ active involvement in the learning process. Thus, students are expected to attend all classes and actively engage in all learning assignments and/or opportunities provided in their classes. Class attendance should be treated as mandatory by all students as attendance will be taken by all instructors during the first two weeks of class.

Departmental Attendance Policy
Consistent attendance is a vital component to success in this course. If you will not be able to attend class, an email should be sent to Mrs. Kullander before the date of the absence. Agencies granting financial assistance may be notified of the violation of the attendance policy by students receiving financial aid.

Attendance is taken starting the first day of the semester and throughout the semester, with the exception of students who enroll after classes have started. Teachers have the right to count students as absent if they arrive late to class, leave class early, or go in and out of the classroom during class time. Teachers have the right to lower a student’s grade based on excessive absences. Instructors set the attendance policy for courses and students’ must follow those policies to remain in the course.

Any student who does not attend class before the roster certification date will be considered a “no show” according to the campus attendance policy and will be reported as such and dropped from the class. Students who were dropped because they had not attended class, will not be allowed back into the course during that specific term; refunds are automatically added to the student’s account for being reported as Never Attending a class. Instructors set the policies for counting students as “no shows” in the online environment and it is the students’ responsibility to follow those policies to remain in the course.

Regular and consistent attendance should be maintained in order to be successful in this course. Excessive tardiness and/or absences are considered discourteous to the instructor and the learning environment and can be a detriment to successful course completion. More importantly, students who are absent miss important information from lectures, class discussions, handouts and assessments, and can easily fall behind on the material. As mastery is a basis for progression, students will need to be present each day. Following an unavoidable absence, the student has the responsibility for completing all activities missed as allowed by the instructor. Instructors in the online environment establish the attendance policies and the requirements for success and it is the students’ responsibility to adhere to those policies.
Drop Date: The last day to drop a course or withdraw from the college is Friday, November 16th. A student should consult with their instructor and financial aid (if applicable) before submitting a drop form. A student can request to drop or withdraw by visiting the student services office on any campus or by submitting a written, faxed request. Faxed requests can be sent to (501) 812-2316 and must contain the student’s name and student ID number, a statement of which course you wish to drop or a statement that you are withdrawing from all courses, your signature, and a copy of your state-issued photo identification. Instructors do not have an administrative drop option.

Course Policies
The UA-PTC Catalog rules and regulations will be enforced in this course at all times. Please consult the following website for more information: http://www.uaptc.edu/catalog

Professional behavior is required. Punctual attendance and intelligent participation are expected. Particulars as determined by the instructor are detailed in the paragraphs below.

Appropriate behavior is expected for all communications, including any notes, email messages, or telephone conversations. Some guidelines for communication are included in this syllabus to help you.

Grading Policy
Letter grades will be based on the following scale:

- 90 to 100% A
- 80 to 89% B
- 70 to 79% C
- 60 to 69% D
- 0 to 59% F

Homework: 15%
Quizzes: 10%
Exams: 50%
Final Exam: 25% Student will receive an F for the course for failure to take final exam.

* Instructors have one week to provide feedback and post grades for all assignments unless otherwise noted by a departmental policy that has been approved by the Dean of the School.
Academic Integrity

It is expected that all students who attend UA-PTC conduct themselves in a manner appropriate for the college experience. Academic integrity is a vital component of collegiate behavior. The UA-PTC catalog states, “The gaining of knowledge and the practice of honesty go hand-in-hand.”

The catalog also states, “The responsibility and authority of initiating discipline arising from violations of the rules against dishonesty during the process of the course are vested in the instructor of that course.”

The complete Academic Integrity Policy is in the UA-PTC code of conduct.

Plagiarism of assignments and/or projects will not be tolerated. The result will be a zero on the grade.

Accommodation Policy

Services for Students with Disabilities: UA-PTC is committed to fulfilling all federal requirements as stated in the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the American with Disabilities Amendments Act (ADAAA) of 2008. Accommodations are available to students who have documented disabilities. Students who request accommodations must register with the Disability Services Office (Main Campus: 501-812-2738 or South Campus: 501-812-2862) and must provide current and relevant documentation.

Students requesting accommodations should inform the instructor at the beginning of the course or as soon as accommodations are approved. It is the student's responsibility to provide their Accommodation Letter to the instructor. Accommodations are not retroactive and will only be provided once your instructor receives the Accommodation Letter.

Student Code of Conduct

All students are expected to abide by the UA-PTC Student Code of Conduct. For the full Student Code of Conduct, access the most current version of the UA-PTC Academic Catalog. [Link]

Sexual Misconduct

No person at UA- Pulaski Technical College will, on the basis of gender, be excluded from participation in, be denied benefits of, or be subjected to sex discrimination, sexual harassment or sexual misconduct under any education program or activity. All college administrative policies and procedures regarding sex discrimination, sexual harassment, and sexual misconduct are in compliance with Title IX. Students who feel they are victims of sexual misconduct should contact the UA-PTC Title IX Deputy Coordinator for Students:

Michelle Anderson, Director of Student Life and Leadership
Campus Center Building Room 216
501-812-2756
Course Evaluations

Students may be asked to evaluate their instructor and course near the end of the semester. These student evaluations are very important to the improvement in the quality of instruction and course materials. All results are anonymous and shared with the faculty only after the semester is over and grades have been posted.

Information Literacy

UA-PTC is committed to the Information Literacy Competency Standards for Higher Education as established by the Association of College and Research Libraries and endorsed by the National Forum on Information Literacy. Therefore, all courses will incorporate an information literacy component so that, by graduation, all students will be able to recognize the need for information, then locate, evaluate, synthesize, and communicate information in an ethical manner. Information literacy encompasses critical thinking, research, media, technology, health, business, and visual literacy skills to produce lifelong learners who can make informed decisions in the workplace and in their personal lives.
## Schedule of Topics

<table>
<thead>
<tr>
<th>Week 1</th>
<th>R.4</th>
<th>Slope and Linear Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 2</td>
<td>1.1</td>
<td>Limits</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>Algebraic Limits and Continuity</td>
</tr>
<tr>
<td>Week 3</td>
<td>1.3</td>
<td>Average Rate of Change</td>
</tr>
<tr>
<td></td>
<td>1.4</td>
<td>Difference Quotient</td>
</tr>
<tr>
<td>Week 4</td>
<td>1.5</td>
<td>Power and Sum/Difference Rules</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>Product/Quotient Rules</td>
</tr>
<tr>
<td>Week 5</td>
<td>1.7</td>
<td>Chain Rule</td>
</tr>
<tr>
<td></td>
<td>1.8</td>
<td>Higher Order Derivatives</td>
</tr>
<tr>
<td>Week 6</td>
<td>Review</td>
<td>Chapter 1 Exam</td>
</tr>
<tr>
<td>Week 7</td>
<td>2.1</td>
<td>First Derivative Test</td>
</tr>
<tr>
<td></td>
<td>2.2</td>
<td>Second Derivative Test</td>
</tr>
<tr>
<td>Week 8</td>
<td>2.3</td>
<td>Rational Functions</td>
</tr>
<tr>
<td></td>
<td>2.4</td>
<td>Max/Min Values</td>
</tr>
<tr>
<td>Week 9</td>
<td>2.5</td>
<td>Max/Min Applications</td>
</tr>
<tr>
<td></td>
<td>2.6</td>
<td>Marginal and Differentials</td>
</tr>
<tr>
<td>Week 10</td>
<td>Review</td>
<td>Chapter 2 Exam</td>
</tr>
<tr>
<td>Week 11</td>
<td>3.1</td>
<td>Exponential Functions</td>
</tr>
<tr>
<td></td>
<td>3.2</td>
<td>Logarithmic Functions</td>
</tr>
<tr>
<td>Week 12</td>
<td>3.3</td>
<td>Growth Models</td>
</tr>
<tr>
<td></td>
<td>3.4</td>
<td>Decay Models</td>
</tr>
<tr>
<td>Week 13</td>
<td>Review</td>
<td>Chapter 3 Exam</td>
</tr>
<tr>
<td>Week 14</td>
<td>4.1</td>
<td>Antidifferentiation</td>
</tr>
<tr>
<td></td>
<td>4.3</td>
<td>Definite Integrals</td>
</tr>
<tr>
<td>Week 15</td>
<td>4.4</td>
<td>Properties of Definite Integrals</td>
</tr>
<tr>
<td>Week 16</td>
<td>Review</td>
<td>Chapter 4 Exam</td>
</tr>
</tbody>
</table>

### Final Exam Schedule: Monday, December 10th, 6:30-8:30pm

Disclaimer: This schedule is a guide for the semester. The instructor reserves the right to amend the schedule as necessary.
Course Agreement Form

Read, complete, and return to instructor:

I have read the course syllabus for Mrs. Kullander’s Business Calculus class at UA - Pulaski Technical College, and I understand its content. I also understand the rules for the class, and I will follow and abide by these rules, including those relating to attendance, assignments, grading criteria, plagiarism, and behavior.

__________________________
Semester

__________________________
Date

__________________________
Print name

__________________________
Signature

__________________________
UA-PTC Email address

__________________________
Telephone