Instructor: Hanna Astephan
Class meetings: MTWF 10:45-11:35
Office Hours: TBD
Office Location: JWB 105
E-mail address: astephan@math.utah.edu

Course website: Canvas

Course Information: Math 1220 (Calculus II) is a 4-credit course.

Prerequisite: “C” or better in (MATH 1210 OR MATH 1250 OR MATH 1270 OR MATH 1310
OR MATH 1311) OR AP Calculus AB score of at least 4 OR AP Calculus BC score of at least 3.

Required Materials: Calculus, with Differential Equations, by Varberg, Purcell and Rigdon,
9th edition published by Pearson. For purchase information (also for future classes), see http://www.math.utah.edu/schedule/bookInfo/

Course Description: Geometric applications of the integral, logarithmic, and exponential func-
tions, techniques of integration, conic sections, improper integrals, numerical approximation tech-
niques, infinite series and power series expansions, differential equations (continued).

Expected Learning Outcomes: Upon successful completion of this course, a student should be
able to:

1. Compute derivatives and integrals for exponential, logarithmic, hyperbolic functions, and
   inverse trigonometric functions.
2. Integrate integrable functions using integration by parts, u-substitution, trigonometric substi-
tutions, rationalizing substitutions, partial fraction decomposition, and trigonometric
   identities. This includes knowing which techniques to apply to a given integral.
3. Use L'Hopital’s Rule to calculate indeterminate-type limits and also know what limits are
   the non-indeterminate forms and how to compute those limits.
4. Compute improper integrals.
5. Understand the difference between an infinite sequence and infinite series and determine if
   a sequence converges or diverges.
6. Determine whether or not an infinite series of numbers converges or diverges using a variety
   of tests.
7. Understand what it means for a Power Series to converge or diverge and be able to find the
   Taylor Series for a given function. Determine how closely a Taylor polynomial approximates
   a function using Taylor’s Remainder Theorem.
8. Differentiate and integrate functions in polar coordinates.
Tutoring: T. Benny Rushing Mathematics Student Center (adjacent to JWB and LCB), Room 155, M-Th 8 AM - 8 PM, F 8 AM - 6 PM (closed Saturdays, Sundays and holidays). They also offer group tutoring sessions. Visit http://www.math.utah.edu/undergrad/mathcenter.php for more information. Alternatively, refer to University Tutoring Services, 330 SSB (they offer inexpensive tutoring). There is also a list of private tutors at the Math Department office in JWB 233.

Lecture Videos: The math department has a full set of lecture videos that you are welcome to use to supplement our course material. Visit the webpage http://www.math.utah.edu/lectures/ to access them.


Course grades: Semester grades will be calculated as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canvas Quizzes</td>
<td>10%</td>
<td>Weekly</td>
</tr>
<tr>
<td>Homework</td>
<td>15%</td>
<td>Weekly</td>
</tr>
<tr>
<td>Midterm 1</td>
<td>15%</td>
<td>January 31</td>
</tr>
<tr>
<td>Midterm 2</td>
<td>15%</td>
<td>February 28</td>
</tr>
<tr>
<td>Midterm 3</td>
<td>15%</td>
<td>April 3</td>
</tr>
<tr>
<td>Final Exam</td>
<td>30%</td>
<td>April 28</td>
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Students with university excused absences (band, debate, student government, intercollegiate athletics) should make alternate arrangements with me as soon as possible if the absence interferes with any course components.

Quizzes: There will be weekly online quizzes on Canvas. To take care of possible unexpected circumstances, I will drop the two lowest quizzes at the end of the semester. These quizzes will be pass/fail, but you still get feedback on the accuracy of your answers.

Midterms: There will be three midterms. Midterms will be in the usual time and location of the course, and they will last 50 minutes. Further information about each midterm will be discussed in class the week before it.

Final: The final exam for this class is comprehensive and it will occur on Tuesday, April 28, 2020 from 10:30 AM to 12:30 PM. With the exception of extenuating circumstances, you will have to take the final exam on that day and at that time. Plan your end of semester accordingly.

Homework: Homework will be assigned weekly and will be collected at the beginning of class on Friday each week. I will accept ten late homework sections, up to two weeks late, throughout the semester for full credit. I will not accept homework more than two weeks late. This policy is meant to be flexible enough to cover all reasons, so do not request special favors in regards to the homework policy, unless the circumstances are extraordinarily severe. I only accept homework in class. I do not accept assignments submitted during office hours, by email, to my mailbox, or
underneath my office door.

Homework will be graded both for completeness and correctness. Each homework section is 10 points, with 7 points for completeness and 3 points for correctness. The completeness score will be weighed according to the number of assigned exercises. No credit will be given for writing just an answer (even if it is correct) without any proof of work. As for correctness, from each assigned section, I will randomly pick one exercise, which will be graded in detail out of 3 points. The remaining assigned exercises will not be graded for correctness, so it is your responsibility to show proof of your work for credit and make sure you understand the problems and their solutions. Homework will mostly be exercises taken from the textbook.

Finally, the way you present your work is important: if you do not staple your homework, or if your work is not legible, the grader will have the freedom to take off as many points as he/she considers appropriate.

**Grading scale:** The grade scale will be the usual:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>[100, 93]</td>
</tr>
<tr>
<td>A−</td>
<td>(93, 90)</td>
</tr>
<tr>
<td>B+</td>
<td>(90, 87)</td>
</tr>
<tr>
<td>B</td>
<td>(87, 83)</td>
</tr>
<tr>
<td>B−</td>
<td>(83, 80)</td>
</tr>
<tr>
<td>C+</td>
<td>(80, 77)</td>
</tr>
<tr>
<td>C</td>
<td>(77, 73)</td>
</tr>
<tr>
<td>C−</td>
<td>(73, 70)</td>
</tr>
<tr>
<td>D+</td>
<td>(70, 67)</td>
</tr>
<tr>
<td>D</td>
<td>(67, 63)</td>
</tr>
<tr>
<td>D−</td>
<td>(63, 60)</td>
</tr>
<tr>
<td>E</td>
<td>(60, 0)</td>
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</tbody>
</table>

**Calculators:** You may find it helpful to have a graphing calculator for your own personal use. However, you will not have the use of a calculator on assessments, which includes all quizzes and exams.

**ADA Statement:** The University of Utah seeks to provide equal access to its programs, services and activities for people with disabilities. If you will need accommodations in the class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, 801-581-5020. CDA will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in alternative format with prior notification to the Center for Disability & Access.

**Student Responsibilities:** All students are expected to maintain professional behavior in the classroom setting, according to the Student Code, spelled out in the Student Handbook. You have specific rights in the classroom as detailed in Article III of the Code. The Code also specifies proscribed conduct (Article XI) that involves cheating on tests, collusion, fraud, theft, etc. Students should read the Code carefully and know you are responsible for the content. According to Faculty Rules and Regulations, it is the faculty responsibility to enforce responsible classroom behaviors, beginning with verbal warnings and progressing to dismissal from class and a failing grade. Students have the right to appeal such action to the Student Behavior Committee. http://regulations.utah.edu/academics/6-400.php
**Addressing Sexual Misconduct:** Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677 (COPS).

**Student Names and Personal Pronouns:** Class rosters are provided to the instructor with the students legal name as well as Preferred first name (if previously entered by you in the Student Profile section of your CIS account). While CIS refers to this as merely a preference, I will honor you by referring to you with the name and pronoun that feels best for you in class, on papers, exams, group projects, etc. Please advise me of any name or pronoun changes (and update CIS) so I can help create a learning environment in which you, your name, and your pronoun will be respected. If you need assistance getting your preferred name on your UID card, please visit the LGBT Resource Center Room 409 in the Olpin Union Building, or email bpeacock@sa.utah.edu to schedule a time to drop by. The LGBT Resource Center hours are M-F 8am-5pm, and 8am-6pm on Tuesdays.

**Wellness Statement:** Personal concerns such as stress, anxiety, relationship difficulties, depression, crosscultural differences, etc., can interfere with a student’s ability to succeed and thrive at the University of Utah. For helpful resources contact the Center for Student Wellness at www.wellness.utah.edu or 801-581-7776.

**Safety Statement:** The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safetu.utah.edu.