Math 1451, Accelerated Calculus- Semester 2

Contact Details: Dr Matthew Nicol , Office PGH Room 210, Extn: 6181

Course times: Lecture times are Tuesday and Thursday 10.00 am - 11.30am-1pm. We will use the application Google Meet. You will receive an invitation (via email) to participate in these Google Meets shortly before the class starts. It works like a Skype meeting and we should be able to interact by voice. I will write on an Ipad what I would normally write on a blackboard, the screen will be visible and you will hear my voice.

Lecture notes and video of lectures will be upload to a Google Drive, instructions to follow.

Office hours: Office hours are 10am to 11am on Wednesday and Friday, or by appointment. These will also be held by Google Meet.

Recitation Class. The recitation classes are held online Mondays, Wednesdays and Fridays from 10am to 11am by Haseeb Ansari (haseeb.ansari@gmail.com). Attendance is compulsory.

Course Description: Here is a brief outline of the course syllabus. The lectures will be based partly on Stewart’s calculus and also other texts, notably the book by Colley listed below.

- Review of power series and Taylor series.
- Functions of several variables, limits and continuity.
- Partial differentiation and the chain rule. Matrices and linearization.
- Directional derivatives and the gradient.
- Maximum and minimum values, Lagrange multipliers.
- Multiple integrals: double and triple integrals.
- Line integrals, curl and divergence, Green’s theorem.
- Surface integrals, Stoke’s theorem and the divergence theorem.
- Applications to physics and chemistry.
**Recommended Texts:** The textbook of most use is “Calculus-early transcendentals” by James Stewart 6th edition.

Another good reference is “Vector calculus” by Susan Colley (3rd edition).

My lecture notes will be detailed and comprehensive. The texts are for reference, though sometimes questions will be assigned from Stewart’s text.

**Assessment:** Your final grade will be based on:

- 40 points for one midterm (time to be announced later)
- 40 points for a final exam scheduled provisionally on Tuesday May 11 from 11am to 2pm.
- 20 points for homeworks. A random selection of homework problems will be graded from among those assigned.

**Religious Holy Days:** Students whose religious beliefs prohibit class attendance or the completion of specific assignments on designated dates may obtain an excused absence. To do so, please make a written request for an excused absence and submit it to your instructor as soon as possible, to allow the instructor to make arrangements. For more information, see the Student Handbook. [http://catalog.uh.edu/index.php](http://catalog.uh.edu/index.php)

**Counseling and Psychological Services (CAPS).** CAPS can help students who are having difficulties managing stress, adjusting to college, or feeling sad or hopeless. You can reach CAPS (www.uh.edu/caps) by calling 713-743-5454 during and after business hours for routine appointments or if you or someone you know is in crisis. No appointment is necessary for the “Lets talk” program, a drop in consultation service at convenient locations and hours around campus. [http://www.uh.edu/caps/outreach/lets talk.html](http://www.uh.edu/caps/outreach/lets talk.html)

Students with disabilities need to register with CSD and present any accommodation requests by the first week of class. Whenever possible, and in accordance with 504/ADA guidelines, the University of Houston will attempt to provide reasonable academic accommodations to students who request and require them. Please call 713-743-5400 for more assistance.

**Excused Absence Policy.** Regular class attendance, participation, and engagement in coursework are important contributors to student success. Absences may be excused as provided in the University of Houston Undergraduate Excused Absence Policy and Graduate Excused Absence Policy for reasons including: medical illness of student or close relative, death of a close family member, legal or government
proceeding that a student is obligated to attend, recognized professional and educational activities where the student is presenting, and University-sponsored activity or athletic competition. Under these policies, students with excused absences will be provided with an opportunity to make up any quiz, exam or other work that contributes to the course grade or a satisfactory alternative. Please read the full policy for details regarding reasons for excused absences, the approval process, and extended absences. Additional policies address absences related to military service, religious holy days, pregnancy and related conditions, and disability.

**Recording of Class.** The materials provided in this course are for the use of the students enrolled in the course only. Copyrighted course materials may not be further disseminated without instructor permission. This includes sharing content to commercial course material suppliers such as Course Hero or Chegg. Students are also prohibited from sharing materials derived from the instructor’s content (e.g., a student’s lecture notes) to commercial course material providers.

Students may not record all or part of class, livestream all or part of class, or make/distribute screen captures, without advanced written consent of the instructor. If you have or think you may have a disability such that you need to record class-related activities, please contact the Center for Students with DisABILITIES. If you have an accommodation to record class-related activities, those recordings may not be shared with any other student, whether in this course or not, or with any other person or on any other platform. Classes may be recorded by the instructor. Students may use instructor’s recordings for their own studying and notetaking. Instructor’s recordings are not authorized to be shared with anyone without the prior written approval of the instructor. Failure to comply with requirements regarding recordings will result in a disciplinary referral to the Dean of Students Office and may result in disciplinary action.

**Syllabus Changes.** Due to the changing nature of the COVID-19 pandemic, please note that the instructor may need to make modifications to the course syllabus and may do so at any time. Notice of such changes will be announced as quickly as possible through (specify how students will be notified of changes).