

DEPARTMENT OF MATHEMATICS
COURSE INFORMATION FOR MATH 2423-271
Calculus and Analytic Geometry II
Summer 2015

Class meeting time and place: MTWRF 8:00-9:15 AM, PHSC 0114

Instructor Contact Information

- Instructor: Alok Shukla; a.lok.shukla@ou.edu; Office: PHSC 1028
- Office Hours: Friday: 9:30-11:30 AM (in PHSC 209)
Wednesday: 9:30-10:30 AM (in PHSC 1028)
- Class web page: <http://www2.math.ou.edu/~ashukla/Teaching.html>

Prerequisites: MATH 1823.

Text: *Calculus (7th ed)*, by James Stewart, Brooks/Cole, 2012, ISBN-13: 978-0-538-49781-7. The course will cover the major portions of Chapters 4, 5, 6, 7, and 8.

Syllabus and Course Objectives: The course will provide an introduction to the integral calculus of functions of one variable for students in engineering and the physical sciences (students will have already mastered the differential calculus of functions of one variable in the pre-requisite course MATH 1823). Although the course will stress computational and applied aspects of calculus over mathematical theory, we will endeavor to develop enough of the conceptual mathematical background of the subject for students to appreciate its logical structure and interconnections. Specific topics to be covered will include the definition of the definite integral as a limit of sums (motivated by problems concerning the computation of areas and distances), the fundamental theorem of calculus, indefinite integrals, u-substitutions, areas between curves, volumes of solids of revolution, the natural logarithmic and exponential functions, the inverse trigonometric functions, hyperbolic functions, indeterminate forms and l'Hospital's rule, various techniques of integration (integration by parts, trigonometric substitutions, partial fractions), improper integrals, approximate integration, arc length, surface area, and further applications to physics and engineering.

Grading: Your grade will be based on the following:

- Homeworks (5%)
- Quizzes (15%)
- 2 Midterm Exams (25%, each)
- Final Exam (30%)

Course grades will be assigned by calculating the total for each student in the class, listing the totals in rank order, and assigning grades according to a reasonable total needed for each letter.

Testing: The dates for the midterm and final exams are given below. The exams will take place in the regular class room PHSC 0114 and will begin at 8:00 AM.

Exam I	Wednesday, July 15
Exam II	Monday, Aug 03
Final	Friday, Aug 14

You must have your OU photo ID with you at all exams, and show it if requested. No books, notes, or electronic devices of any kind may be used during exams. Do not make travel plans that prevent you from taking any of the tests or the final exam at the scheduled time. If you have a legitimate reason for missing an exam that can be documented independently of your testimony (e.g., via a note or phone call from a doctor or a parent), you must contact me prior to the exam, in order to make an alternative arrangement.

Attendance: You are expected to attend all the lectures and you are responsible for all information given out during them. You are expected to arrive on time for the lectures, properly prepared - in particular, adequately rested and up to date on the course material - so that you can maintain full concentration for the entire lecture. All the electronic equipments should be turned off before the start of every lecture and should remain off until the class is dismissed.

Homework and Quizzes: The homework assignments will be given in the class web site. Your homework solutions must be turned in at the beginning of the class on the due date. Giving just an answer to a problem is not worthy of any credit - you have to write a complete solution which gives your step-by-step reasoning and is written in grammatically correct English. Although good exposition takes time and effort, writing your thoughts carefully will greatly increase your understanding and retention of the material. **Your lowest homework grade will be dropped.**

*The problems in your homework should be in the order listed in the assignment, and the sheets should be stapled. **No late homework will be accepted!***

Homework assignments will be checked for completeness. You are encouraged to discuss the homework problems with other students, but you should write up the solutions in your own words. In order to understand the concepts, solving a large number of problems on a regular basis is highly recommended. The assigned homework problems are a bare minimum for most students to get a basic working knowledge of the required material, so on the class web-site you can also find FFT ("Food for Thought") problems - problems that you should think about, but not turn them in with the regular homework. Being able to solve the FFT problems is essential for doing well on the exams.

Short pop in-class quizzes will be given at random times. There will be no make-up quizzes!. **The lowest quiz grade will be dropped.**

Getting help: There are several resources for help if you are having difficulty. You should make use of the Math Help-Center (PHSC 209), where highly qualified tutors will answer your questions.

You are also welcome to meet me during my office hours for clarifying your doubts or discussing any topic related to the course.

Use of calculators and technology: A basic calculator is needed for a few of the homework problems, but use of electronic calculators of any kind during exams is prohibited.

Academic misconduct: All cases of suspected academic misconduct will be referred to the Dean of the College of Arts and Sciences for prosecution under the University's Academic Misconduct Code. The penalties can be quite severe. **Don't do it!** For more details on the University's policies concerning academic misconduct see

http://integrity.ou.edu/files/Academic_Misconduct_Code.pdf

This link also has information about students' rights to appeal charges of academic misconduct. For information about admonitions (either accepting or contesting them) see

<http://integrity.ou.edu/files/Admonition.pdf>

Students are also bound by the provisions of the *OU Student Code*, which can be found at

<http://judicial.ou.edu/content/view/27/32/>

Students with disabilities: The University of Oklahoma is committed to providing reasonable accommodation for all students with disabilities. Students with disabilities who require accommodations in this course are requested to speak with the instructor as early in the semester as possible. Students with disabilities must be registered with the Office of Disability Services prior to receiving accommodations in this course. The Office of Disability Services is located in Goddard Health Center, Suite 166: phone 405-325-3852 or TDD (only) 405-325-4173.

Religious holiday policy: It is a policy of the university to excuse absences of students that result from religious observances and to provide without penalty for the rescheduling of examinations and additional required class work that may fall on religious holidays. Adhering to this policy, I request students who plan to observe a religious holiday to notify me as soon as possible to make appropriate arrangements for class work or rescheduling of examinations.