

## MATH 41, FALL 2011

**Course website:** <http://math41.stanford.edu>

### Instructors and lecture times:

Jose Cantarero. Office: 380-382B.

Lectures 05 (MWF 1:15-2:05pm at 380-380C) and 12 (MWF 2:15-3:15pm at 380-380Y)

Phone: 650-723-2976. Email: [cantarer@math.stanford.edu](mailto:cantarer@math.stanford.edu)

Office hours: Mondays 3:30-5:30pm and Tuesdays 2-3pm.

Nancy Rodriguez. Office: 380-382X.

Lectures 01 (MWF 11-11:50am at 380-380C) and 11 (MWF 10-10:50am at 380-380Y)

Phone: 650-723-2221. Email: [nrodriguez@math.stanford.edu](mailto:nrodriguez@math.stanford.edu)

Office hours: Tuesdays 11-12am and Wednesdays 2-4pm.

Math 41A (ACE) students must attend lectures 05 or 12.

**Course description and prerequisites:** Math 41 is a 5-credit course in introductory calculus with an accelerated pace – the class covers limits, derivatives, applications of differentiation, and the basics of integration (up to substitution and integration by parts). More details can be found at the Syllabus section of the course website. It is one of three different single-variable calculus courses taught at Stanford in the autumn quarter, so you should be deciding during the first week if it's the right calculus class for you.

Math 41-42 is a two quarter sequence in single variable calculus. We will cover the same material as in the Math 19-20-21 sequence, but at a faster pace. If you have recently finished a calculus class covering all of the subjects listed above and you feel confident about them, you should consider instead taking Math 42 – even if you don't have AP credit. If you're undecided about which of Math 41/42 (or any two courses in sequence) to take, keep in mind that it will be easier to drop back than to jump ahead during the second or third week of the quarter.

On the other hand, if it's been a year or more since your last math class or you are taking math just to satisfy a DB-MATH, you should consider instead taking Math 19 – even if

you did well in calculus in high school. Math 41 moves very quickly, and leaves you very little time to get back into shape if your math skills are rusty. It is intended to develop the necessary background for students who will need calculus for their further studies, and may be more intense than what students satisfying a disciplinary breadth requirement are looking for.

On Registrar deadlines: Please pay careful attention to all Registrar deadlines, especially the add/drop deadline at the end of the third week of classes. No changes in course registrations from Math 42 to 41 will be allowed after the drop deadline. However, UAR has a special provision in place to accept petitions for switches from Math 41 to 19 submitted in complete form before Friday, October 28th at 5pm. The instructions for how to properly complete the petition is contained in the "Getting Help, Honor Code and Other Resources" section of the course website. You can also contact your instructor for more information.

**Textbook:** Single variable calculus: Concepts and contexts, 4th edition, by James Stewart. Homework and reading assignments are taken from the book. This will also be the text for Math 42. It is not recommended that you use a copy of a different edition since the numbering of the problems for homework assignments may be different.

**Discussion Sections:** Lectures and discussion sections have a different aim. Lectures are used to introduce concepts, theory, some examples and motivations and to help you understand the relationship between the different topics of the course. On the hand, discussion sections will introduce further examples and review the homework and previous years exam problems, to help you master the mechanics of calculus. Interaction is encouraged in discussion sections. Attendance of both lectures and discussion sections is fundamental to do well in this course.

Please follow the steps below to register for a discussion section. Note that in Math 41, you will only received credit for written work (homework, exams) turned into your registered section leader. It is your responsibility to turn your work in to the correct section leader. No CourseWork registration is necessary for ACE students.

- (1) First, use Axxess to register for your choice of course lecture (numbered 01, 05, 11, 12 or ACE), subject to availability. Your options for discussion sections will depend on the Math 41 lecture you register for.
- (2) Within about 6-24 hours of completing step 1, you will be able to sign into CourseWork, enter the Math 41 area, and register for your choice of section. If there is no more room, you must choose another section. You cannot receive credit for written work unless you register for a discussion section.

- If your Axess registration is for lecture 01 or 11, please sign into CourseWork and choose from among the following discussion section options, subject to availability:

Section 02	TTh 1:15-2:05pm	160-325	TA: Sam Lichtenstein
Section 04	TTh 1:15-2:05pm	Educ. 210	TA: Junsoo Ha
Section 08	TTh 10-10:50am	Educ. 210	TA: Sam Lichtenstein
Section 10	TTh 11-11:50am	Herrin T185	TA: Junsoo Ha

- If your Axess registration is for lecture 05 or 12, please sign into CourseWork and choose from among the following discussion section options, subject to availability:

Section 03	TTh 11-11:50am	420-050	TA: Ulrik Buchholtz
Section 06	TTh 1:15-2:05pm	200-219	TA: Jenya Sapir
Section 07	TTh 10-10:50am	380-381T	TA: Jenya Sapir
Section 09	TTh 2:15-3:05pm	200-303	TA: Ulrik Buchholtz

- If your Axess registration is for Math 41A (ACE), your ACE discussion section meets TTh 1:15-3:05pm in 200-201 and is led by Tracy Nance. No CourseWork registration is necessary for ACE students. ACE students, please attend either lecture 41-05 or 41-12.

### Homework:

- (1) Daily exercises. A short homework assignment and previous years exam problems corresponding to each lecture. The former will be made out of routine problems to practice the mechanics of calculus and the latter will give you an idea of the level of exam questions. You do not need to hand these in. You should also read the section of the book covered in that lecture.
- (2) Weekly homework. A longer homework assignment that should be carefully written up and handed in, with sufficient justification shown for each problem. These will be graded and returned to you. Solutions will be posted on the course website. The lowest two homework scores will be dropped when computing the final grade. No late homework will be accepted under any circumstance. Homework should be handed in on the due date by 3:15pm.

You are encouraged to work with others on your homework, but be wary of depending too much on outside help to solve problems. You should only discuss problems you have attempted already. I recommend you spend at least half of your study hours alone. Each student must write up their own solutions. Honor code applies.

**Exams and grading:** Your grade in this course will be the total of the following weighted grades:

- (10 %) Weekly homework
- (25 %) Midterm 1: Thursday, October 20th, 7-9pm.
- (25 %) Midterm 2: Thursday, November 10th, 7-9pm.
- (40 %) Final: Monday, December 12th, 7-10pm.

The problems on the exams will have a similar level to the problems in the weekly homework and previous years exams. Any makeup exams will take place before the scheduled exams. Only reasonable situations will call for a makeup exam, such as conflicting class or exam or unavoidable trip (not vacation). If an emergency occurs and you need to miss an exam, your final grade will be based solely on the rest of the scores in the class. If you need to request an early exam, you must contact your instructor no later than one week before the exam. Individual exams are not curved or scaled.

**Office hours:** You are encouraged to attend the office hours provided by the instructors and teaching assistants, any of them, it does not matter whether they are your instructors, discussion leaders or not. You may just drop in at the scheduled office hours, which are listed at the office hours section of the course website. Office hours start on Tuesday, September 27th.

**Accessability:** Stanford University is committed to providing accessible education. Students with disabilities are encouraged to contact the Office of Accessible Education and your instructor as soon as possible so that appropriate arrangements are made in this course.

**Other information:** Calculators will not be used in a systematic way in the MATH 41-42 sequence. They are not needed for exams or homework.

**Honor code:** Please see the websites <http://honorcode.stanford.edu/> and <http://fundamentalstandard.stanford.edu/> for information on the Stanford Honor code and the Fundamental Standard. By Math Department policy, any student found to be in violation of the Honor Code on any assignment or exam in this course will receive a final course letter grade of NP.