Syllabus for Math 1020Q
Problem Solving
Fall 2012

Web Page: Information about Math 1020Q may be found by going to:

`http://www.math.uconn.edu/~pon/math1020f12/index.html`

Text: *PProblem SSSolving*, by DeFranco and Vinsonhaler, 2nd edition. The text is available for sale at the UConn bookstore.

Topics: This math course will be unlike any math course you've taken before. You probably won't ever need the distributive rule, or to find the equation of a line, or the Quadratic Formula. That type of "math" is what is commonly taught in high schools and colleges. However, math is about more than just rules and equations – it's about thinking through problems, finding patterns, exploring creative solutions, communicating clearly, and using reason to solve problems. These are all skills that you possess already; in this class, we're going to develop them even further. We'll talk about some key problem-solving techniques (PSSSP, whatever that is), get lots of practice applying these techniques, and see how they can be used in math classes, other classes, and really in just about any problem you're ever faced with.

(Might as well get started now: What should the next two letters in this sequence be? OTTFFSSE...)

Expectations: It's very important for you to come to class! Our classes won't be 50-minute lectures – they'll mostly be workshops, where you get time working on problems with other students and your instructor. If you miss a class, you will still be responsible for what you missed, and that will include talking to other students to find out what we worked on, and then working through problems on your own to make up for missed time.

Outside of class, you should expect to spend about 4-6 hours per week working on projects. There aren't many shortcuts to becoming a great problem-solver; we can give you tips, but it also takes lots of practice. However, this work won't consist of lists and lists of equations to solve. It'll be fun, engaging work that you can get excited about.

Office Hours: Your instructor will have weekly office hours, where you can go for extra help, or even if you don't have any questions – attending office hours is always a good tactic to improve your performance (and your grade) in the course.

Homework: Homework will be assigned each week, and collected the following week. We won't spend much time in class talking about homework, so if you have questions, come to office hours. You should turn in neat, organized solutions with full explanations, in full English sentences. Answers without explanations are worth no credit, and if I can't read the homework or follow the organization of your homework, you'll be less likely to get credit. I suggest typed solutions. We won't deal much with formulas and symbols, so typing up solutions shouldn't be too hard.

Group Projects: You will be assigned group projects during the semester. Each group will submit one write-up for the project. These will be graded on accuracy, creativity, and presentation. We'll start them in class, but you'll have to finish your projects outside of class. Eventually, all groups will present their project solutions to the class.

Exams: There will be two midterm exams that will be scheduled at the beginning of the semester. There will not be any makeup exams given. If there is an emergency and you must miss an exam, you will be responsible for notifying your instructor ahead of time or you will not get credit for that exam.

Grading: Your course grade will be made up of 50% for homework and classwork, 25% for the two midterm exams, 12.5% for your final project, and 12.5% for the final exam.

Academic Integrity: Academic dishonesty is a serious business, with very serious consequences. Please be familiar with the university policy on academic integrity (`http://www.community.uconn.edu/academic_integrity.html`).

Students Needing Special Accommodations: Student athletes and students with disabilities: Inform your instructor as soon as possible of your commitments as an athlete, any special needs that you have, etc. This is *your* responsibility. You will expected to bring in a letter from the Athletics Department or the Center for Students with Disabilities.

Religious observances: University Senate passed a motion on about religious observances which stipulated that Students anticipating such a conflict should inform their instructor in writing within the first three weeks of the semester, and prior to the anticipated absence, and should take the initiative to work out with the instructor a schedule for making up missed work. For conflicts with final examinations, students should, as usual, contact the Office of Student Services and Advocacy.

Final Exam Makeups: Final assessment week for fall 2012 takes place from Monday, December 10th through Sunday, December 16th. Students are required to be available for their exam and/or complete an assessment during the time stated in the Registrar's Office Schedule. If you have a conflict with this time you must visit the Office of Student Services and Advocacy to discuss the possibility of rescheduling this assessment.

NEW THIS YEAR OSSA is REQUIRING that students who have a conflict about which they have or should have had advanced notice (bunched, religious obligation, legal/medical appointments) MUST seek permission to reschedule their assessment NO LATER THAN November 30th.

Please note that vacations, previously purchased tickets or reservations, graduations, social events, misreading the assessment schedule and over-sleeping are not viable excuses for missing a final assessment. If you think that your situation warrants permission to reschedule, please contact the Office of Student Services and Advocacy (2nd floor Wilbur Cross) to meet with a staff member.

Math 1020Q

Fall 2012

Instructor: Steven Pon
MWF, 11:00-11:50AM, MSB 211
Text: PProblem SSSolving, 2nd Edition, DeFranco and Vinsonhaler
Office hours: Wednesdays, 1-4, MSB 220 or by appointment.
Syllabus

Announcements

8/27: Have questions or comments, but you want to make like Batman and hide your identity? Try the anonymous feedback form.
8/27: Before anything else, you should familiarize yourself with the course syllabus.

Projects

You'll be doing projects throughout the semester. To stay on track, use the timeline below.

Week	Date	Material	Assignment due on Date
1	Aug 29	Chapters 1,2 - Problem Solving, PSSSP	Automathography
2	Sep 5	Chapter 3 - Be Proactive	Heap Letter
3	Sep 12	Chapter 4 - See it	Symmetry
4	Sep 19	Chapter 4 - See it	Prom Problem
5	Sep 26	Chapter 5 - Simplify it, Exam #1	Parking Lot
6	Oct 3	Chapter 6 - Stir it up	Forty Thieves
7	Oct 10	Chapter 6 - Stir it up	Should you switch?
8	Oct 17	Chapter 7 - Pause and Reflect	Faculty Debts
9	Oct 24	Chapter 8,9 - Interpersonal, Communication	Grilled Cheese
10	Oct 31	Estimation	Grappling with Groups
11	Nov 7	Review, Exam #2	Maple Tree (10 ways to measure)
12	Nov 14	Revisit PSSSP and work on Final Project	
13	Nov 28	Revisit PSSSP and review for Final Exam	House Hunt
14	Dec 5	Present Final Project	Weights