Math 1020Q – Problem Solving

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Office Hours: Monday 11-12, Wednesday 2-3, Thursday 1-2, and by appointment.

Textbook

PProblem SSSolving, 3rd edition, by DeFranco, Vinsonhaler, and Naigles

Goals

The goal is to develop problem solving skills that can be applied throughout your life. This is not a typical math course. We will use creative thinking to solve various mathematical problems, but the methods and skills can be applied to other types of problems as well.

Expectations

Come to class, it's not that difficult. Much of the learning in this class will come from working on problems in groups. You will find that reading the book or copying down lecture notes is not a sufficient substitute in this course. Participation in class is also key to your success. Homework and exam problems will be similar to ones done in class.

Homework

Homework will be assigned, collected, and graded each week. Generally, homework assignments will be due Friday of each week, and are due at the time of class. All work must be shown, and **an answer without an explanation is not worth credit**. If stuck, you may discuss homework problems with other students, or with Mike. However, **the write-up that you turn in must be your own**.
There will be 12 homework assignments throughout the semester, and altogether they compose 40% of the course grade (so each individual homework assignment is 3.33% of the course grade).
Each homework assignment will be graded out of 10 points. If an assignment is turned in on multiple pages, it **must be stapled** (otherwise 1 point will be taken off).

Late Assignments

If a homework assignment is not turned in by the end of class on the day it is due, it is considered late. For up to four homework assignments, you may turn it in late, up until the following class period, without penalty. However, homework assignments turned in later than the class period after the due date **will not be accepted**, unless there is an approved excuse as to why you were unable to turn it in earlier.

Academic Integrity

Academic dishonesty is a serious issue, and will be treated as such. Please be aware of UConn's policy on academic integrity, as it will be strictly followed. If you are responsible for academic dishonesty, you should expect, at minimum, a failure of this course, and possibly harsher sanctions.

Group Project

There will be a group project near the end of the semester. Time will be given in class to work on the project. Details about the project will be given later in the semester.

Calculators

A basic calculator (something that can add, subtract, multiply, and divide) is all that will be needed for this class. If you have a calculator on your phone, that will be sufficient for in class, **except on exams**, where phones will not be permitted.

Exams

There will be two in-class exams and a final exam. The dates for the in-class exams are as follows:

- Wednesday, February 25
- Friday, April 10

The final exam will take place during a **mathematics department common block time** (TBA).

Grade

The grade for this class will be broken down as follows:
Homework: 40%
Group Project: 15%
Exams: 45% (each exam is 15%)

Extra Credit Opportunities

There will be at least two extra credit opportunities throughout the semester. Each extra credit will be worth up to 3 points toward the homework part of your grade (which is 1% of the course grade), so don't expect extra credit to give a huge boost to your grade, though it can definitely impact your letter grade.

Office Hours

Mike 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. If you are unable to attend office hours, or wish to meet with Mike at a different time, you may also set up an appointment.

In addition to attending office hours, this is a Q course, which means you can visit the Quantitative Learning (Q) Center in the Learning Commons on level 1 of the Homer Babbidge Library for tutoring.

Athletes and Students with Disabilities

Student athletes and students with disabilities should inform Mike of any special needs or commitments within the first two weeks of the semester, by bringing a letter from the Athletic Department or Center for Students with Disabilities.

Week	Dates	Material	Assignment(s) Due
1	1/21 – 1/23	Chapters 1&2 – Problem Solving, PSSSP	Due 1/23 – Automathography
2	1/26 – 1/30	Chapter 3 – Be Proactive	Due 1/30 – Heap Letter
3	2/2 – 2/6	Chapter 4 – See It	Due 2/6 – Symmetry
4	2/9 – 2/13	Chapters 4&5 – See It, Simplify It	Due 2/13 – Prom Problem
5	2/16 – 2/20	Chapters 5&6 – Simplify It	Due 2/20 – El Pogo Loco
6	2/23 – 2/27	**Exam 1: Wednesday 2/25** Friday 2/27: Chapter 6 – Stir It Up	Due 2/27 – Forty Thieves
7	3/2 – 3/6	Chapters 6&7 – Stir It Up, Pause & Reflect	Due 3/6 – Faculty Debts
8	3/9 – 3/13	Pause & Reflect, Counting Problems	Due 3/13 – Three Jugs Problem
9	3/16 – 3/20	Spring Break!	
10	3/23 – 3/27	Game Theory, Counting Problems	Due 3/27 – Dominoes
11	3/30 – 4/3	Game Theory, Counting Problems	Due 4/3 – Game Theory
12	4/6 – 4/10	**Exam 2: Friday 4/10**	
13	4/13 – 4/17	Work on Final Project	Due 4/17 – Seven Elevators
14	4/20 – 4/24	Work on Final Project	Due 4/24 – House Hunt
15	4/27 – 5/1	Present Final Project	
16		**Final Exam**	