UConn Math 1030Q – Elementary Discrete Mathematics
Spring 2016 Syllabus

Course Catalog Description and Prerequisites

Course Catalog Description: Topics chosen from discrete mathematics. May include counting and probability, sequences, graph theory, deductive reasoning, the axiomatic method and finite geometries, number systems, voting methods, apportionment methods, mathematics of finance, number theory.

Course Prerequisites: Recommended preparation: MATH 1010 or equivalent. Not open for credit to students who have passed any MATH course other than MATH 1010, 1011, 1020, 1040, 1050, 1060 or 1070.

Class Details and Contact Information (Lecture)

Professor: Adam Giambrone

Email: adam DOT giambrone AT uconn DOT edu

A Note about Email: Please check your email daily for important course information. Also, email is the best way to contact me outside of class. I usually respond pretty quickly. Don't be shy!

Office: MSB M228 (Math-Science Building)

Office Hours:

- **Mondays and Wednesdays from 1:00 p.m. – 2:00 p.m.**
- **Tuesdays and Thursdays from 2:30 p.m. – 3:30 p.m.**

A Note about Office Hours: You don't need an appointment to come to my office hours listed above. Just stop on by! If you cannot make the office hours listed above but would like to meet, please email me or talk to me. I will do my best to find a meeting time that works for both of us.

Class Meeting Times:

Lecture Section	Lecture Days	Lecture Times	Lecture Classroom
100	MW	9:05 a.m. – 9:55 a.m.	BPB 130 (Biology/Physics Building)

Class Details and Contact Information (Discussion)

Instructors: Khadija Figarsky / Rozita Ramili

Emails: khadija DOT figarsky AT uconn.edu / rozita DOT ramili AT uconn.edu

Offices: MSB M117 (Math-Science Building) / TBA

Office Hours: TBA / TBA

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Discussion Session And Instructor(s)	**Discussion Meeting Day**	**Discussion Meeting Time**	**Discussion Classroom**
101D Rozita Ramili / Khadija Figarsky	F	8:00 a.m. – 8:50 a.m.	MSB 219 (Math-Science Building)
103D Rozita Ramili / Khadija Figarsky	F	9:05 a.m. – 9:55 p.m.	MSB 319 (Math-Science Building)
104D Khadija Figarsky	F	9:05 a.m. – 9:55 a.m.	OAK 106 (Oak Hall)
105D Khadija Figarsky	F	11:15 a.m. – 12:05 p.m.	MSB 219 (Math-Science Building)
106D Rozita Ramili / Khadija Figarsky	F	1:25 p.m. – 2:15 p.m.	MSB 219 (Math-Science Building)
107D Rozita Ramili / Khadija Figarsky	F	12:20 p.m. – 1:10 p.m.	MSB 215 (Math-Science Building)
108D Rozita Ramili / Khadija Figarsky	Th	3:30 p.m. – 4:20 p.m.	MSB 415 (Math-Science Building)
109D Rozita Ramili / Khadija Figarsky	Th	5:00 p.m. – 5:50 p.m.	MSB 415 (Math-Science Building)

The Philosophy Behind Math 1030Q

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One of the main points of this course is to introduce a new side of mathematics. In this course, we will:

(1) use mathematics as a way to highlight methods for effective thinking (not just about mathematics).

(2) explore some great ideas in mathematics (just like people explore great works of art).

(3) explore how mathematics ideas can be applied in the world.

We will NOT focus on memorizing notation, terminology, and formulas. These are the things that are usually forgotten soon after the end of the semester. These are the things that we probably won't use in the future. We will NOT focus on final answers; instead, we will focus more on developing the strategies and thought processes that can help lead to a solution. We will focus on exploring and discovering ideas.

Goals for Math 1030Q

After this course, we will

(1) be more effective thinkers.

(2) see and hopefully appreciate mathematics in a new way.

(3) see and hopefully appreciate how mathematics can be applied in the world.

Some Advice for How to Succeed in Math 1030Q

(1) Get actively engaged in every aspect of the course. Mathematics shouldn't be something that is done to you.

(2) Spend some time reading the textbook. It was actually designed to be read by students (for a change)!

(3) Work with other students in this class both during lecture and during your discussion session. Mathematics happens in a learning community, not in isolation.

Course Materials

Class Webpage: All course-related materials and assignments will be posted on the HuskyCT site for this course. Go to

https://lms.uconn.edu

Click on "Login" and sign in using your UConn NetID and password. Click on "MATH-1030Q-Elementary Discrete Mathematics-SEC100-1163".

A Note about the Class Webpage: Please visit the HuskyCT site daily. I will regularly upload and update all course materials on this site.

WileyPLUS: We will be using the WileyPLUS online homework system. This will be integrated into our HuskyCT site. An access code for WileyPLUS is required for this course. The WileyPLUS access code includes a "free" electronic copy of the textbook. You can get a WileyPLUS access code by

(1) purchasing an access code online when you access WileyPLUS via HuskyCT,
(2) purchasing an access code from the UConn Co-op Bookstore, or
(3) purchasing the hardcopy textbook from the UConn Co-op Bookstore that is bundled with an access code.

Note: A textbook without a WileyPLUS access code can be purchased in many places, but the total cost of buying this textbook AND buying the WileyPLUS access code may be much more than the cost of buying them bundled together.

Textbooks:

(1) *The Heart of Mathematics: An Invitation to Effective Thinking* (4th Edition) by Edward B. Burger and Michael Starbird

• An electronic textbook comes "free" with a WileyPLUS access code. (See above for more details.)

(2) *The 5 Elements of Effective Thinking* by Edward B. Burger and Michael Starbird

• ISBN-13: 978-0691156668

Assessments

Online Homework: Online WileyPLUS homework will be assigned throughout the semester.

Written Homework: Written homework will be assigned throughout the semester. The homework questions will be taken from the WileyPLUS online homework assignments. These written homework assignments will be due during certain discussion sessions throughout the semester. See the schedule below for due dates. You will be able to drop your lowest written homework assignment score. This will be handy if you need to miss an assignment due to travel or illness.

Quizzes: Short quizzes will be given during certain discussion sessions throughout the semester. See the schedule below for quiz dates. You will be able to drop your lowest quiz score. This will be handy if you need to miss a quiz due to travel or illness.

Individual Reading/Writing Assignments: Individual reading/writing assignments will be assigned throughout the semester. See the schedule below for due dates.

Group Assignments/Projects: Small group assignments/projects will be assigned throughout the semester. See the schedule below for due dates.

Working with Other Students: This class will involve a mixture of individual assignments (to be completed by yourself) and group assignments (to be completed with one or more students in the class). Because of this, please pay very close attention to the directions for each assignment. Receiving any sort of outside help on a graded assignment—from the internet (unless told otherwise), from other people in this class (except for members of your group for group assignments), from other people not in this class, or from any other source—is academic dishonesty and will be taken seriously.

Midterm Examinations: There will be two midterm examinations (Exam 1 and Exam 2). See the schedule below for the tentative exam dates. These may be in-class examinations, take-home examinations, or

examinations with both in-class and take-home portions. Note that the second of the two grading options below allows you to drop your lowest midterm exam score and add the weight of this exam to the final exam. This is meant to reward improvement as the semester progresses.

Final Examination: The date and time for the final exam is determined by the university. The confirmed date, time, and location will be announced as soon as it becomes available.

Grading Schemes: Your final grade (as a percentage) will be determined by Option 1 and Option 2 below. You will automatically be given whichever option results in a higher grade.

Option 1	**Weight**	**Option 2**	**Weight**
Online Homework	10%	Online Homework	10%
Written Homework (lowest score dropped)	15%	Written Homework (lowest score dropped)	15%
Quizzes (lowest score dropped)	10%	Quizzes (lowest score dropped)	10%
Reading/Writing Assignments	10%	Reading/Writing Assignments	10%
Group Assignments/Projects	10%	Group Assignments/Projects	10%
Exam 1	15%	Exam 1 and Exam 2 (lower score dropped)	15%
Exam 2	15%		
Final Exam	15%	Final Exam	30%

Final Grades: The following grading scale (based on your final grade as a percentage) will be used to determine your final course grade:

A	[92, 100]	B	[82,88)	C	[72, 78)	D	[62, 68)
A-	[90, 92)	B-	[80, 82)	C-	[70, 72)	D-	[60, 62)
B+	[88, 90)	C+	[78, 80)	D+	[68, 70)	F	[0,60)

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Policies and Resources

Attendance: You should attend all class meetings and are responsible for what we discuss. If you miss a class meeting, you should talk with a classmate to figure out what you missed, you should get any handouts/materials you missed from the HuskyCT site, and you should get caught up as soon as possible.

Make-Up/Late Policy: In fairness to everyone, there are generally NO make-ups and NO extensions for any form of evaluation/assessment (online homework assignments, written homework assignments, quizzes, individual reading/writing assignments, group assignments/projects, and midterm exams). Only extreme situations with an officially documented excuse will allow you to make up an evaluation/assessment. Whenever possible, these excuses must be presented before the evaluation/assessment is due or is supposed to take place in class.

Grading Policy: If you have any questions about the grading of any evaluation/assessment, please ask as soon as possible (usually by the end of the day the evaluation/assessment is returned). If too much time has passed, then grading changes may not be made.

Calculator Policy: Unless stated otherwise during the semester, calculators will NOT be allowed (or needed) on any in-class assessments (quizzes, midterm exams, or the final exam).

Academic Integrity: Academic dishonesty is considered a serious offense at UConn. Students caught cheating shall be subject to the sanctions and other remedies described in The Student Code (http://community.uconn.edu/the-student-code-appendix-a/). Proactive strategies for students to minimize academic misconduct can be found at http://community.uconn.edu/proactive- strategies-for-students-to-minimize-academic-misconduct/. It is in your best interest to maintain your academic integrity.

The Quantitative Learning Center: The Quantitative Learning Center (Q Center) at UConn provides free drop-in tutoring for a number of mathematics, chemistry, statistics, and physics classes. The Q Center is located on Level 1 of the Homer Babbidge Library.

Accommodations for Students with Disabilities: Students who think that they may need accommodations because of a disability are encouraged to meet with me privately early in the semester. Students should also contact the Center for Students with Disabilities as soon as possible to verify their eligibility for reasonable accommodations. For more information, please go to the website http://www.csd.uconn.edu/.

DISCLAIMER: This is an evolving syllabus and schedule. Any changes or additions to the syllabus and schedule will be made on the "Course Syllabus and Schedule" section of the class HuskyCT site.

Tentative Schedule for Math 1030Q

"W-#" means "WileyPLUS Assignment for Chapter # or Section #"

"HW#" means "Written Homework Assignment #"

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Lecture or Discussion Day	**Date**	**Sections Discussed, Due Dates, Etc.**
Wednesday	01/20/16	Introductions, Ch. 1
Thursday OR Friday	01/21/16 OR 01/22/16	Introductions, Ch. 1 **Reading/Writing Assignment 1 Assigned**
Monday	01/25/16	Ch. 1
Wednesday	01/27/16	2.1
Thursday OR Friday	01/28/16 OR 01/29/16	Ch.1, 2.1 **Reading/Writing Assignment 1 Due** **Reading/Writing Assignment 2 Assigned**
Monday	02/01/16	2.4 **W-1 Due at 11 p.m.**
Wednesday	02/03/16	2.4 **W-2.1 Due at 11 p.m.**
Thursday OR Friday	02/04/16 OR 02/05/16	2.4 **Reading/Writing Assignment 2 Due** **Quiz 1 (Covering Ch. 1, 2.1)** **HW1 Assigned (Covering Ch. 1, 2.1, 2.4)**
Monday	02/08/16	2.4 **Group Assignment 1 Assigned**
Wednesday	02/10/16	4.1
Thursday OR Friday	02/11/16 OR 02/12/16	2.4, 4.1

		HW1Due **Quiz 2 (Covering Ch. 2.4)**
Monday	02/15/16	4.2 **W-2.4 Due at 11 p.m.**
Wednesday	02/17/16	4.2 **W-4.1 Due at 11 p.m.**
Thursday OR Friday	02/18/16 OR 02/19/16	Review (Ch. 1, 2.1, 2.4, 4.1) **Group Assignment 1 Due**
Monday	02/22/16	**Exam 1 in Class (Covering Ch. 1, 2.1, 2.4, 4.1)** **Exam 1 Take-Home Question Assigned in Class**
Wednesday	02/24/16	Exam 1 Take-Home Question Due in Class
Thursday OR Friday	02/25/16 OR 02/26/16	4.2 **Reading/Writing Assignment 3 Assigned**
Monday	02/29/16	4.7 **W-4.2 Due at 11 p.m.**
Wednesday	03/02/16	4.7
Thursday OR Friday	03/03/16 OR 03/04/16	4.7 **Reading/Writing Assignment 3 Due** **Quiz 3 (Covering 4.2)** **HW2 Assigned (Covering 4.2, 4.7)**
Saturday	03/12/16	**W-4.7 Due at 11 p.m.**
Monday	03/07/16	4.7, 6.1
Wednesday	03/09/16	6.1

Thursday OR Friday	03/10/16 OR 03/11/16	4.7, 6.1 **HW2 Due**
Monday	03/14/16	NO CLASS (Spring Recess)
Wednesday	03/16/16	NO CLASS (Spring Recess)
Thursday OR Friday	03/17/16 OR 03/18/16	NO CLASS (Spring Recess)
Monday	03/21/16	6.1 **HW3 Assigned (Covering 6.1)** **Group Assignment 2 Assigned**
Wednesday	03/23/16	6.4
Thursday OR Friday	03/24/16 OR 03/25/16	6.1, 6.4 **HW3 Due** **Quiz 4 (Covering 4.7, 6.1)** **Reading/Writing Assignment 4 Assigned**
Monday	03/28/16	6.4 **W-6.1 Due at 11 p.m.**
Wednesday	03/30/16	6.4
Thursday OR Friday	03/31/16 OR 04/01/16	Review (4.2, 4.7, 6.1, 6.4) **Reading/Writing Assignment 4 Due** **Group Assignment 2 Due**
Saturday	04/02/16	**W-6.4 Due at 11 p.m.**
Monday	04/04/16	**Exam 2 in Class (Covering 4.2, 4.7, 6.1, 6.4)**

		Exam 2 Take-Home Question Assigned in Class
Wednesday	04/06/16	Exam 2 Take-Home Question Due in Class
Thursday OR Friday	04/07/16 OR 04/08/16	10.4 **Reading/Writing Assignment 5 Assigned**
Monday	04/11/16	10.4
Wednesday	04/13/16	10.4
Thursday OR Friday	04/14/16 OR 04/15/16	10.4 **Reading/Writing Assignment 5 Due** **Quiz 5 (Covering 10.4)** **HW4 Assigned (Covering 10.4, 10.5)**
Monday	04/18/16	10.5 **W-10.4 Due at 11 p.m.**
Wednesday	04/20/16	10.5
Thursday OR Friday	04/21/16 OR 04/22/16	10.5 **HW4 Due** **Quiz 6 (Covering 10.5)**
Monday	04/25/16	10.5
Wednesday	04/27/16	Review (Everything) **W-10.5 Due at 11 p.m.**
Thursday OR Friday	04/28/16 OR 04/29/16	Review (Everything)
???day	05/0?/16	**Final Exam (Time and Location TBA)**