Math 1030Q

UCONN
UNIVERSITY OF CONNECTICUT

*Elementary Discrete Mathematics*
*Department of Mathematics*

# Syllabus – Fall 2018

**Excluding materials for purchase, syllabus information may be subject to change. The most up-to-date syllabus is located within the course in HuskyCT.**

## Course and Instructor Information

**Course Title:** Elementary Discrete Mathematics
**Credits:** 3
**Format:** Lecture
**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.

**Course Meetings:** Tuesday and Thursday, 9:30AM – 10:45PM, ARJ 105.

**Professor:** Maxim Derevyagin
**Email:** maksym.derevyagin@uconn.edu
**Telephone:** (860) 486-1288
**Office Location:** MONT 310
**Office Hours/Availability:** Monday-Thursday, 1:15pm-2-15pm or by appointment. I can usually respond to an email within 24 hours.

## Course Materials

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

**WileyPlus:** The WileyPLUS online homework system will be used in this course. This will be integrated into HuskyCT. An access code for WileyPLUS is required for using the online homework system.

**Book for Reading Assignments:** *The 5 Elements of Effective Thinking* by Edward B. Burger and Michael Starbird

For instance, you can buy all of the above at UConn Bookstore by clicking here. However, you might find other options that might be more convenient for you. In particular, the Wiley access code for the online homework system also provides you with the electronic version of the textbook.

**Clickers:** You need a clicker for this course (you can purchase it at UConn Bookstore). If this is the first course in which you are using your i>clicker, you must register your i>clicker remote using the link provided in the HuskyCT course page.

## Course 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 Objectives

By the end of the semester, students, who successfully complete this course, will improve their reasoning and problem-solving skills. They will also discover new and exciting aspects of the mathematical knowledge.

## Tentative Course Outline

Module 1: *Fun and Numbers.* It will be based on Chapters 1 and 2 of the textbook (August 27th – October 5th).

Module 2: *Geometry and Graph Theory*. It will be based on Chapters 4 and 6 of the textbook (October 8th – November 2nd).

Module 3: *Decision Making*. It will be based on Chapter 10 of the textbook (November 5th – November 30th)

Module 4: *Course Review* (December 3rd – December 7th)

## Course Requirements and Grading

**Summary of Course Grading:**

| Course Components | Weight |
|---|---|
| Homework | 20% |
| Quizzes | 15% |
| Midterm Exams | 30% |
| Group Project | 5% |
| Clickers | 5% |
| Final Exam | 25% |

**Homework:**
Homework will be electronically assigned on WileyPlus. You should use the corresponding link in HuskyCT.

**Quizzes:**
There will be three quizzes. The lowest quiz score will be dropped and only the best two will be counted towards your grade.
*Tentative quiz dates are September 13th, October 18th, and November 15th*.

**Midterm Exams:**
There will be 2 midterm exams. The lowest midterm test score will be replaced by appropriately rescaled student's final exam score provided that it improves the grade.
*Tentative test dates are September 27th and November 1st.*

**Group Project:**
All the students should split into groups and they will be given certain assignment during the first few weeks of classes.
*It will be assigned during the first week of classes and collected on November 27th*.

**Reading Assignments:**
There will be reading assignments. Some clicker and quiz questions will cover the material that was assigned to read. Students will be informed well in advance about such questions (when and how many) and the material that has to be read before.

**Final Exam:**
The final exam is accumulative. There will be a review of the corresponding material during the last week of classes.
The final exam date is TBA

**Grading Scale:**

| Grade | Letter Grade | GPA |
|---|---|---|
| 93-100 | A | 4.0 |
| 90-92 | A- | 3.7 |
| 87-89 | B+ | 3.3 |
| 83-86 | B | 3.0 |
| 80-82 | B- | 2.7 |
| 77-79 | C+ | 2.3 |
| 73-76 | C | 2.0 |
| 70-72 | C- | 1.7 |
| 67-69 | D+ | 1.3 |
| 63-66 | D | 1.0 |
| 60-62 | D- | 0.7 |
| <60 | F | 0.0 |

## Student Responsibilities and Resources

As a student enrolled in this class you must be aware that

- You should attend all class meetings and you are responsible for the material that you missed due to absences. So, it is always a good idea to know a couple of your classmates.
- Cell phones, laptops, and other electronic devices that might cause disruption should be turned off or silenced before class begins.
- You will be given enough time to complete your homework assignments and, therefore, there will be NO extensions on homework.
- Electronic devices including calculators will NOT be allowed during exams and quizzes.
- In order to be fair to everyone, there are no make-up tests. Just keep in mind that the grading system of this course is developed in a way that a student can miss a test and a quiz and still succeed in this course.

As a member of the University of Connecticut student community, you are held to certain standards and academic policies. In addition, there are numerous resources available to help you succeed in your academic work. Review these important standards, policies and resources, which include:

- The Student Code
  - Academic Integrity
  - Resources on Avoiding Cheating and Plagiarism
- Statement on Absences from Class Due to Religious Observances and Extra-Curricular Activities
- Policy Against Discrimination, Harassment and Related Interpersonal Violence

## Students with Disabilities

The University of Connecticut is committed to protecting the rights of individuals with disabilities and assuring that the learning environment is accessible. If you anticipate or experience physical or academic barriers based on disability or pregnancy, please let me know immediately so that we can discuss options. Students who require accommodations should contact the Center for Students with Disabilities, Wilbur Cross Building Room 204, (860) 486-2020 or http://csd.uconn.edu/.