UCONN
UNIVERSITY OF CONNECTICUT

MATH 1011Q
Introductory College Algebra and
Mathematical Modeling
Department of Mathematics, Storrs

Syllabus – FALL 2022

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

Program Information

Math 1011Q is a course designed to serve as preparation for all the other Q courses offered at UConn. A first component of this class is made up of the collection of fundamental algebraic concepts and their manipulations. Most of this material is taught in High Schools and Community Colleges under the name Intermediate Algebra or Algebra II. Math 1011Q covers this material using a college algebra approach. The second component consists of using these algebraic concepts for solving multi-step problems from other disciplines. This practice is called Mathematical Modeling, and is the part of the course that gives Math 1011Q its unique interesting flavor, liveliness and usefulness beyond a usual Intermediate Algebra course.

Course and Instructor Information

Course Title: Introductory College Algebra and Mathematical Modeling
Credits: 3
Format: IN – PERSON on TuTh 8:00AM-9:15AM and Fr 8:00Am-8:50AM in MONT 113
Prerequisites: N/A

Professor/Instructor/Facilitator: Bianca Munteanu (You can call me Bianca, if not comfortable, Mrs. Munteanu is also fine)
Pronouns: she/her/hers

Email: bianca.munteanu@uconn.edu
Office Hours/Availability: Office hours will be held so that students can get direct help for homework/quiz/exam.
MONT 130 Monday and Wednesday 12:30PM – 2:00 PM and by appointment.

Course Materials

Required course materials should be obtained before the first day of class.

Required textbooks are available for purchase through the UConn Bookstore (or use the Purchase Textbooks tool in HuskyCT). Textbooks can be shipped (fees apply).

Required Materials: Intermediate Algebra 7ed, by Elayn Martin Gay

You ca buy a new/used textbook from UConn Bookstore, or you can rent a new/used textbook. There is also the option of buying/renting a digital textbook(the cheapest option). See picture below.

FALL 2022 MATH 1011Q 001 (1 required)

Professor MUNTEANU



REQUIRED

Intermediate Algebra

By Martin-Gay, Elayn
Edition : 7TH 17
Publisher : PEARSON
ISBN 13 : 9780134196176

Print

- ○ $239.99 New Print
- ○ $179.99 Used Print

Rental

- ○ $212.40 New Print Rental
  Return by 12/18/22
- ○ $105.85 Used Print Rental
  Return by 12/18/22

Digital

- ○ $74.99 Digital Purchase
  Online access for 365 Days, perpetual offline download access
  Digital Rights
- ◉ $44.99 Digital Rental
  Expires in 180 Days
  Digital Rights

Course Description

This class emphasizes two components necessary for success in 1000-level courses which employ mathematics. The first component consists of basic algebraic notions and their manipulations. The second component consists of the practice of solving multi-step problems from other disciplines, called mathematical modeling. The topics include: lines, systems of equations, polynomials, rational expressions, exponential and logarithmic functions. Strongly recommended as preparation for Q courses for students whose high school algebra needs reinforcement.

Course Outline

Week	Content	Assignments
1	1.2 Algebraic expressions and sets of numbers 1.3 Operations with real numbers 1.4 Properties of real numbers	Pg 16: 1,5,7,31-36,5961,73,78-80,83,97 Pg 28: 1,9,11,17,21,27,31,35,37,45,47,53,67,73,79,91 Pg 40: 3,9,11,15-20,25-34,41,53,55,76,80,109
2	2.1 Linear equations in one variable 2.2 Introduction to problem solving 2.3 Formulas and problem solving	Pg 57: 1,11,13,17,23,26,35,43,47 Pg 65: 1,3,5,11,13,30,31 Pg 75: 1,3,7,13,29,52
3	2.4 Linear inequalities and problem solving 2.6 Absolute value equations	Pg 87: 3,5,9,13,33,43,51,59,63,66,71 Pg 102: 5,9,15,21,29,37,47,59,67
4	**Midterm1- September 22** 3.1(+3.3) Graphing equations	**1.2, 1.3, 1.4, 2.1, 2.2, 2.3, 2.4, 2.6** Pg 129: 1-9(odd),17,19,21,27,33,41,47
5	3.2 Introduction to functions 3.4 Slope of a line 3.5 Equations of lines	Pg 142: 1,3,15,17,23,25,29,35,39,53,55,57,69,71,73,75 Pg 164: 5,9,13,29,31,35,43,45,61,69,89,91 Pg 175: 7,9,11,15,17,19,25,29,43,45,65,71
6	4.1 Linear equations in two variables 5.1 Exponents 5.2 Exponents 2	Pg 216: 1,7,9,17,21,25,29,41,57,61 Pg 267: 1,3,5,7,15,25,27,33,43,47,53,61,73,75,85 Pg 273: 1,7,9,17,21,25,29,33,41,47,49,57,65
7	5.3 Polynomials and Polynomial functions 5.4 Multiplying polynomials	Pg 284: 19,23,29,31,35,41,47,53,57,67,85 Pg 293: 11,19,25,37,39,43,45,51,57,73,87
8	**Midterm 2- October 20** 5.5 The greatest common factor	**3.1, 3.2, 3.4, 3.5, 4.1, 5.1, 5.2, 5.3, 5.4** Pg 299: 1,3,5,9,11,15,17,21,25,47,57,61

9	5.6 Factoring trinomials 5.7 Factoring special products 5.8 Solving quadratic equations	Pg 308: 3,11,13,15,21,29,59,87 Pg 314: 5,7,11,13,17,21,23,45,63 Pg 327: 3,9,13,21,23,25,49,59
10	6.1 Multiply and divide rational expressions 6.2 Add and Subtract rational expressions	Pg 351: 3,15,17,23,33,45,51,63 Pg 359: 1,11,17,19,21,25,29,33,45,59,69
11	7.1 Radicals and radical functions 7.2 Rational exponents	Pg 423: 1,3,7,11,19,25,39,47,61,71,73,87 Pg 431: 3,5,13,15,21,23,31,37,39,43,51,53,67,71
12	**Midterm 3 – November 17** 7.6 Radical equations	**5.5, 5.6, 5.7, 5.8, 6.1, 6.2, 7.1, 7.2** Pg 460: 5,7,13,39,51,55
13	**Thanksgiving Break**	Nov 20 to Nov 26
14	9.3 Exponential functions 9.5 Logarithmic functions 9.6 Properties of logarithms 9.8 Exponential and logarithmic equations	Pg 567: 3,17,18,19,20,21,27,31,35,49 Pg 581: 3,5,13,19,21,25,31,39,41,47,51,63,65 Pg 587: 3,5,9,13,15,19,21,25,31,49,51,53,55,57 Pg 599: 13,17,21,31,33
1 15	**Final's Week Dec 12-Dec 17**	**Good luck on your finals!**

Class Meeting Schedule

We meet IN-PERSON every Tuesday and Thursday from 8:00 – 9:15am in MONT 113 and Friday from 8:00 – 8:50am in MONT 113.

Course Requirements and Grading

Summary of Course Grading:

Course Components	Weight
Homework	10%
Quizzes	15%
Midterms	15% - each
Final exam	30%

Homework

Each section has some problems assigned for homework. The homework is to be completed on paper, scanned, saved as a PDF file and uploaded on Gradescope (access Gradescope via HuskyCT) every Tuesday before midnight. The homework will be graded for completion and correctness. From each section I will choose specific questions to grade for correctness. The rest of the questions will be graded on completion. I will check that each question has an attempted solution.

The solutions for each homework will be available after 6am the next day.

The lowest homework grade will be dropped at the end of the semester.

Quizzes

Every week on Friday (except the first week, the Thanksgiving week, and last week of classes) there will be a quiz based on the material from the previous week. The quizzes will be a combination of multiple choice and complete answer questions.

The lowest quiz grade will be dropped at the end of the semester.

Midterms

The midterms will be given every 4th week on Thursday. The exams are timed, 75 minutes each.

Final Exam
The date for the final exam will be announced at a later time by the Registrar. The exam will be cumulative.

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

Due Dates and Late Policy
All course due dates are identified in HuskyCT in each assignment/quiz. Deadlines are based on Eastern Time unless otherwise specified. *The instructor reserves the right to change dates accordingly as the semester progresses. All changes will be communicated in an appropriate manner.*

Homework submitted within two hours of deadline will have a penalty of 10% of the grade, after the 2 hour frame the homework is not considered for grading anymore.

Feedback and Grades

I will make every effort to provide feedback and grades before each week's quiz. To keep track of your performance in the course, refer to My Grades in HuskyCT

Weekly Time Commitment

You should expect to dedicate at least four hours a week to this course. This expectation is based on the various course activities, assignments, and assessments and the University of Connecticut's policy regarding credit hours. (More information related to hours per week per credit can be accessed at the Online Student website).

How to Succeed in this Course

All students can succeed in this course and I am here to help you along the way. Please do not hesitate to ask questions or attend office hours. All questions are important here. Success in this course program depends heavily on your personal health and well-being. Please feel free to reach out to me about any difficulty you may be having that may impact your performance in this class as soon as it occurs and before it becomes too overwhelming. In addition to your academic advisor, I strongly encourage you to contact the many other support services on campus that stand ready to assist you.

Here are a few useful links:
Dean of Students Office,
Academic Achievement Center,
Writing Center,
Quantitative Learning Center,
Center for Students with Disabilities,
Title IX Office,
Student Health and Wellness -- Mental Health

Husky Study Groups

Are you interested in forming a study group with other students in the class? There is a study group application in Nexus that can help you get started. Please watch this video and check here for more information.

Resources for Students Experiencing Distress

The University of Connecticut is committed to supporting students in their mental health, their psychological and social well-being, and their connection to their academic experience and overall wellness. The university believes that academic, personal, and professional development can flourish only when each member of our community is assured equitable access to mental health services. The university aims to make access to mental health attainable while fostering a community reflecting equity and diversity and understands that good mental health may lead to personal and professional growth, greater self-awareness, increased social engagement, enhanced academic success, and campus and community involvement.

Students who feel they may benefit from speaking with a mental health professional can find support and resources through the **Student Health and Wellness-Mental Health** (SHaW-MH) office. Through SHaW-MH, students can make an appointment with a mental health professional and engage in confidential conversations or seek recommendations or referrals for any mental health or psychological concern.

Mental health services are included as part of the university's student health insurance plan and also partially funded through university fees. If you do not have UConn's student health insurance plan, most major insurance plans are also accepted. Students can visit the **Student Health and Wellness-Mental Health located in Storrs on the main campus in the Arjona Building, 4th Floor,** or contact the office at **(860) 486-4705, or https://studenthealth.uconn.edu/** for services or questions**.**

Accommodations for Illness or Extended Absences

Please stay home if you are feeling ill and please go home if you are in class and start to feel ill. If illness prevents you from attending class, it is your responsibility to notify me as soon as possible. You do not need to disclose the nature of your illness, however, you will need to work with me to determine how you will complete coursework during your absence.

If life circumstances are affecting your ability to focus on courses and your UConn experience, students can email the Dean of Students at dos@uconn.edu to request support. Regional campus students should email the Student Services staff at their home campus to request support and faculty notification.

COVID-19 Specific Information: People with COVID-19 have had a wide range of symptoms reported – ranging from mild symptoms to severe illness. These symptoms may appear 2-14 days after exposure to the virus and can include:

- Fever,
- Cough,
- Shortness of breath or difficulty breathing
- Chills
- Repeated shaking with chills
- Muscle pain
- Headache
- Sore throat
- New loss of taste or smell

Additional information including what to do if you test positive or you are informed through contract tracing that you were in contact with someone who tested positive, and answers to other important questions can be found here: https://studenthealth.uconn.edu/updates-events/coronavirus/

If special circumstances occur and we cannot meet in person, I will record the lecture and make it available to you in HuskyCT.

The web-based video delivery of certain classes in this course is for sole use of the students enrolled in this course. Any other use of these class videos or any pictures or derivatives of the class videos without my written consent is prohibited.

Statement on Copyright: ***"My lectures, notes, handouts, and displays are protected by state common law and federal copyright law. They are my own original expression and I've recorded them prior or during my lecture in order to ensure that I obtain copyright protection. Students are authorized to take notes in my class; however, this authorization extends only to making one set of notes for your own personal use and no other use. I will inform you as to whether you are authorized to record my lectures at the beginning of each semester. If you are so authorized to record my lectures, you may not copy this recording or any other material, provide copies of either to anyone else, or make a commercial use of them without prior permission from me."***

Student Responsibilities and Resources

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
- Copyrighted Materials
- Credit Hours and Workload
- Netiquette and Communication
- Adding or Dropping a Course
- Academic Calendar
- Policy Against Discrimination, Harassment and Inappropriate Romantic Relationships
- Sexual Assault Reporting Policy

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. 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/.

Help

Technical and Academic Help provides a guide to technical and academic assistance.

This course uses the learning management platform, HuskyCT. If you have difficulty accessing HuskyCT, you have access to the in person/live person support options available during regular business hours through the Help Center. You also have 24x7 Course Support including access to live chat, phone, and support documents.

Student Technology Training

Student technology training is now available in a new HuskyCT short course created by students for students. It will prepare you to use the IT systems and services that you will use throughout your time at UConn, whether learning online or on-campus. It is available at https://lms.uconn.edu/ultra/courses/_80016_1/cl/outline .

Evaluation of Course Experience

Students will be given an opportunity to provide feedback on their course experience and instruction using the University's standard procedures, which are administered by the Office of Institutional Research and Effectiveness (OIRE).

The University of Connecticut is dedicated to supporting and enhancing teaching effectiveness and student learning using a variety of methods. The Student Evaluation of Teaching (SET) is just one tool used to help faculty enhance their teaching. The SET is used for both formative (self-improvement) and summative (evaluation) purposes.

Additional informal formative surveys and other feedback instruments may be administered within the course.