UNIVERSITY OF CONNECTICUT - WATERBURY
COURSE OVERVIEW

COURSE - MATH 1011Q-W32 (12230) **Introductory College Algebra and Mathematical Modeling**
3 credits **Fall 2019**

INSTRUCTOR: Frank Grgach [frank.grgach_jr@UCONN.edu]

TEXT: Intermediate Algebra, 7th Edition by Elayn Martin-Gay

LOCATION: Waterbury, Room # WREC 302
Tu, Th 11:00 am – 12:40 pm

DESCRIPTION: Not open to students who have passed a Q course. RHAG students cannot take more than 22 credits of 1000 level courses. 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. Students will engage in group projects in mathematical modeling. Strongly recommended as preparation for Q courses for students whose high school algebra needs reinforcement.

EXAMS/GRADE: **All grading will be on a point system. Your performance on the following assessments will determine your semester grade.**

Homework Assignments	Up to 4 points each
Worksheets	Up to 10 points each
Quizzes	Up to 40 points each
Exams	200 points each
FINAL EXAM - During Exam week in Dec	**200 points**

RESCHEDULING FINAL EXAMINATIONS: https://catalog.uconn.edu/academic-regulations/grade-information/#exam-absence

ADVICE:

The exams will be comprehensive exams covering all of the material, some of it in depth, it will be very important that you do the assigned problems as we go along. If you begin having problems get help immediately - DO NOT WAIT! Waiting until the last minute and cramming may teach you how to do the simple problems but will not give you the opportunity to think about the work and gain the understanding necessary for success with the more difficult exam problems. The assigned problems are a representative sample of the material presented, for a better understanding additional problems should also be completed.

ATTENDANCE:

You are expected to attend each class and to take all assessments on their assigned dates. **Only extraordinary circumstances would permit the make-up of a missed quiz or exam.** In the event of illness, **email me** or phone the office (203-236-9800) and leave a message.

HOMEWORK:

Homework will be assigned "DAILY" and needs to be done "**DAILY**".

Participate - Do not observe.

CALCULATORS:

Graphing Calculator [TI 83+ or 84+] - **use will be limited**

PEOPLE WITH DISABILITIES, POLICY STATEMENT: https://policy.uconn.edu/2011/05/24/people-with-disabilities-policy-statement/

POLICY AGAINST DISCRIMINATION, HARASSMENT, and RELATED INTERPERSONAL VIOLENCE: https://policy.uconn.edu/2015/12/29/policy-against-discrimination-harassment-and-related-interpersonal-violence/

ACADEMIC INTEGRITY: Academic dishonesties/misconducts are not tolerated at UCONN. Any indiscretion will result in, but are not limited to, a grade of 0 on the assessment. Please refer to "The Student Code" https://community.uconn.edu/the-student-code-preamble/ ,for additional information and responsibilities. Also refer to the ACADEMIC MISCONDUCT PROCEDURES FOR INSTRUCTORS: https://community.uconn.edu/academic-misconduct-procedure-review/

Class #1 Tuesday August 27, 2019	Homework
1.2 Algebraic Expressions & Sets of Numbers	pp 15 – 17 1, 5, 7, 31 – 36, 59, 61, 73, 78 – 80, 83, 97
1.3 Operations on Real Numbers & Order of Operations	pp 27 – 30 1, 9, 11, 17, 21, 27, 31, 35, 37, 45, 47, 53, 67, 73, 79
1.4 Properties of Real Numbers & Algebraic Expressions	pp 39 - 41 3, 9, 15 – 20, 41, 47, 55, 76, 80, 105, 109

Class #2 Thursday August 29, 2019	Homework
2.1 Linear Equations in One Variable	pp 57 - 58 1, 11, 13, 17, 23, 26, 35, 43
2.2 An Introduction to Problem Solving	pp 65 - 70 1, 5, 11, 13
2.3 Formulas & Problem Solving	pp 75 - 78 1, 5, 53

Class #3 Tuesday September 3, 2019	Homework
2.4 Linear Inequalities & Problem Solving	pp 87 - 90 1, 3, 7, 11, 43, 45, 59,63

Class #4 Thursday September 5, 2019 **QUIZ**	Homework
2.6 Absolute Value Equations	pp 102 - 103 5, 9, 15, 21, 53, 57
3.1 Graphing Equations including	pp 129 - 131 1, 3, 5, 7, 9, 17, 19, 27, 33, 37

Class #5 Tuesday September 10, 2019	Homework
3.2 Introduction to Functions	pp 142 - 146 1, 3, 11, 23, 25, 29, 35, 37, 53, 55, 57, 59
3.3 Graphing Linear Functions	pp 152 – 154 3, 4, 7, 8, 17, 20, 25, 26, 34, 43

Class #6 Thursday September 12, 2019	Homework
3.4 The Slope of a Line	pp 164 - 168 5, 23, 29, 31, 41, 43, 64, 69, 71, 95
3.5 Equations of Lines	pp 175 - 178 1, 13, 25, 41, 42, 44, 47

Class #7 Tuesday September 17, 2019	Homework
4.1 Solving Systems of Linear Equation in Two Variables	pp 216 - 218 1, 3, 9, 17, 21, 77

Class #8 Thursday September 19, 2019 **QUIZ**	Homework
5.1 **Exponents** & Scientific Notation	pp 267 - 268 7, 13, 19, 25, 33, 49, 69 102, 104, 109, 125, 128

Class #9 Tuesday September 24, 2019	Homework
5.2 More Work with Exponents & Scientific Notation	pp 273 - 274 1, 5, 7, 21, 24, 55 69, 73

Class #10 Thursday September 26, 2019 **EXAM #1**	Homework
5.3 Polynomials & Polynomial Functions	pp 284 - 287 17, 23, 35, 45, 47
5.4 Multiplying Polynomials	pp 293 - 295 1, 7, 23, 25, 29

Class #11 Tuesday October 1, 2019	Homework
5.5 The Greatest Common Factor & Factoring by Grouping	pp 299 - 301 3, 9, 11, 13
5.6 Factoring Trinomials (use of Quadratic Formula for roots – 8.2)	pp 308 - 309 15, 25, 27, 47

Class #12 Thursday October 3, 2019 **QUIZ**	Homework
5.7 Factoring by Special Products	pp 314 - 315 1, 13, 41, 45 **Good review – p 313**

Class #13 Tuesday October 8, 2019	Homework
5.8 Solving Equations by Factoring & Problem Solving (via quadratic formula & roots)	pp 327 - 331 5, 9, 13

Class #14 Thursday October 10, 2019	Homework
5.8 Solving Equations by Factoring & Problem Solving (via quadratic formula & roots)	

Class #15 Tuesday October 15, 2019	Homework
6.1 Rational Functions & Multiplying & Dividing Rational Expressions	pp 351 - 354 1, 17, 37, 41, 47, 63

Class #16 Thursday October 17, 2019 **QUIZ**	Homework
6.1 Rational Functions & Multiplying & Dividing Rational Expressions	

Class #17 Tuesday October 22, 2019	Homework
6.2 Adding & Subtracting Rational Expressions	pp 359 – 361 7, 21, 30, 31, 33

Class #18 Thursday October 24, 2019	Homework
6.2 Adding & Subtracting Rational Expressions	

Class #19 Tuesday October 29, 2019	Homework
7.1 Radicals & Radical Functions	pp 423 - 425 3, 9, 19, 25, 39, 43, 45, 53, 75

Class #20 Thursday October 31, 2019 **EXAM #2**	Homework
7.2 Rational Exponents	pp 431 - 433 1, 11, 19, 29, 39, 41, 47, 51, 61, 65

Class #21 Tuesday November 5, 2019	Homework
7.6 Radical Equations & Problem Solving	pp 460 - 463 1, 9, 11, 13 (with 7.2) 53, 59 (with 7.1)

Class #22 Thursday November 7, 2019	Homework
9.3 Exponential Functions	pp 567 - 569 2, 5, 18, 20, 21, 27, 35, 37

Class #23 Tuesday November 12, 2019	Homework
9.3 Exponential Functions	

Class #24 Thursday November 14, 2019 **QUIZ**	Homework
9.5 Logarithmic Functions	pp 581 - 582 29, 31, 41, 45, 51, 69

Class #25 Tuesday November 19, 2019	Homework
9.6 Properties of Logarithms	pp 587 - 589 1, 9, 17, 21, 35, 43, 53, 55, 57

Class #26 Thursday November 21, 2019 **QUIZ**	Homework
9.8 Exponential & Logarithmic Equations & Problem Solving	pp 599 – 601 11, 27, 28 (with 9.5), 31, 32, 33 (with 9.6)

Class #27 Tuesday December 3, 2019	Homework
9.8 Exponential & Logarithmic Equations & Problem Solving	

Class #28 Thursday December 5, 2019	Homework
Questions & Focused Review	

Mon – Sun Dec 9 – Dec 15 Final Exams

The date for the Final Exam will be determined once the Final Exam Schedule is Released

[Additional Topics if Time permits]

Class # ??	Homework
4.2 Linear Equations in Three Variables	pp 220 - 221 5, 7, 9, 13

Class # ??	Homework
9.7 Common Logarithms, Natural Logaritms, & Change of Base	pp 585 - 586 15, 21, 27, 39, 45, 47