## Course Outline: Spring 2018 COURSE TITLE: MAT 095 - Introduction to Quantitative Reasoning PRE-REQUISITE: C or higher in OTP 091 or equivalent, or by placement exam **CREDIT HOURS:** 4-credits hours (4 contact hours: group work & lecture) **DEPARTMENT:** STEM (Science, Technology, Engineering & Mathematics) **INSTRUCTOR:** Mary Ann Bahruth PHONE: 688-1573 or 687-5230 [STEM Dept.]

OFFICE: BUR 107 C

**ADDITIONAL** 

**TEXTBOOK:** 

**OFFICE HOURS:** 

SUPPLIES

1) Consistent and reliable access to a computer with internet access. Pathways.carnegiehub.org is an online tool required for submitting homework exercises.

QUANTWAY® 1, Carnegie Foundation for the Advancement of Teaching,

QUANTWAY<sup>®</sup> 1 & 2 Package, Carnegie Foundation for the Advancement of Teaching, ISBN 13: 978-1-5066-8247-1

Xanedu, Version 2.6, 2017. ISBN 13: 978-1-5066-9767-3

- 2) A scientific calculator is required. Graphing calculators are not allowed on the Exams and the Final Exam. Only scientific calculators are allowed on Exams and the Final. No other electronic devices are allowed on the exams. For example, students may not use cell phones, iPhones, or other such electronic devices on the exams. Students may not "share" calculators during exams.
- 3) A 3-ring binder or folder to keep handouts.

bahruthm@sunvulster.edu

1:45 pm - 2:45 pm

11:45 am -12:45 pm

OR

Other times are available by appointment. Please ask!

M. F

T, R

Xanedu.

**OBJECTIVE:** This course integrates numeracy, proportional reasoning, algebraic reasoning, and understanding of functions. An activity based approach is used to explore numerical concepts, quantitative reasoning, graphical displays of data, proportional relationships in real-world problems, problem solving with equations and inequalities, functions, and linear and exponential models and other mathematical models. Students will develop conceptual and procedural tools that support the use of key mathematical concepts in a variety of contexts. This course is intended to provide the necessary background so that the student will be prepared to succeed in a college-level quantitative reasoning course.

COURSE CONTENT: This course covers the following chapters & sections as time permits:

Module 1: Quantitative Literacy Toolkit	Sections: 1.1-1.9, 1R
Module 2: Working with Data	Sections: 2.1-2.8, 2.CA, 2R
Module 3: Algebraic Reasoning	Sections: 3.1-3.8, 3.R [3.5, only if time]
Module 4: Creating and Using Models	Sections: 4.1-4.8, 4CA, 4R

This course will be conducted using collaborative learning. Some introductory and summary information will be given, but primarily students will work on problem situations individually and/or in groups and discuss their findings with the whole class. Participation and engagement, careful reading and writing, as well as critical thinking and problem-solving, are important parts of this course.

This class will be different in many ways from other math classes. You are going to interact with each other quite a bit and talk to each other about mathematical reasoning. You will work in small groups and contribute to the discussion of the problems that your group is working on. We will be following a couple of easy rules:

- 1. We give everyone a chance to talk;
- 2. We respond to whatever anyone says with respect;
- 3. We are concerned here about concepts that will help you learn mathematical reasoning;
- 4. We will support each other in working together.

**HOMEWORK:** Every lesson includes an online homework assignment that must be submitted before the next class session. This online work is not just a set of additional problems that provide extra practice. The online work in this class is an integral part of the instruction. New concepts introduced online before class, and concepts developed during class are extended online after class. Your points for this activity will be earned based upon submitting correct answers to all of the assigned exercises and problems by the deadline. The MyQuantway software will show you which answers in your assignments are incorrect. You have 5 attempts for each question before the deadline to correct your work. Each online homework is divided into two parts as follows:

- 1. OCE: Out-of-Class Exercises. This has a section that reviews the high-level concepts from the last lesson and another section that provides example problems that reinforce, <u>extend</u> and add detail to the material form the last lesson. NOTE: 5% of your average OCE score for each module will be added as bonus points on your unit assessment grade.
- PNL Preparing for the Next Lesson. This is done before class and gives a preview of the lesson you will be doing next.

You must log in to the MyQuantway online tool: <u>Pathways.carnegiehub.org</u> to complete the assigned problems.

## TESTING AND GRADING POLICY:

There will an assessment (unit exam) given at the end of each of the 4 modules. **There are no make-up exams**! If you know you will miss an exam, contact me beforehand and I will work something out with you. Otherwise you will score a zero for the exam. There is a mandatory, comprehensive final exam at the end of the course.

Unit Exams	70%
Homework (PNL and OCE) [quizzes]	10%
Final Exam	20%

The Department Grade Scale is as follows:

А	93-100	В	83-86	С	73-76	D	63-66
A-	90-92	B-	80-82	C-	70-72	D-	60-62
B+	87-89	C+	77-79	D+	67-69	F	0-59

## Special note:

Students are responsible for informing the instructor of any instructional accommodations and/or special learning needs at the beginning of the semester.

**TUTORING:** Free drop-in tutoring is available at the **Patrik Math Center** (ALG 122). The hours are Monday through Thursday, 10:00 am to 5:00 pm. Supplemental Instruction is also available for this course [hours to be announced]. For more information e-mail, call or stop by the Learning Center.

E-mail: lac@sunyulster.edu Phone: 687 – 5039 Students are encouraged to utilize these resources!

ATTENDANCE POLICY:	Regular class attendance is essential. A good way to be successful in this course is to attend every class. Some assignments will be completed entirely during class. If you are absent from class, you may not be able to make up those assignments. If you miss course material due to absence, it is your responsibility to contact your classmates as soon as possible regarding missed material. If you miss <u>three</u> classes, you will be required to meet with the instructor to discuss your progress in the course. If you must leave early, be sure to inform the instructor prior to the beginning of class. Students are expected to get to class on time. Coming to class late or leaving early is disruptive to the instructor and to the class.
STUDENT BEHAVIOR:	<ul> <li>Treat your classes as you would a desirable job. The instructor is a team leader and your classmates are coworkers. All must work together to complete learning objectives. These behaviors are expected of you:</li> <li>Attend all classes on time.</li> <li>Respect the rights of others to contribute by listening attentively. Show consideration for student, instructors and other college employees.</li> <li>Participate appropriately and actively on topics presented in class.</li> <li>Complete your assignments on time.</li> <li>Ask for feedback from your instructors/peers to insure progress toward learning objectives.</li> <li>Resolve problems by immediately discussing issues with your instructor and/or peers.</li> <li>Turn cellular phones off during class.</li> </ul>
ELECTRONIC DEVICES:	Please do not come to class if you are not willing to be an active participant. Turn off your cell phone or other electronic devices. If you must use a cell phone because of an emergency, please step out of class.
WITHDRAWAL POLICY:	Students wishing to withdraw from a course must secure the necessary withdrawal form from the Registrar's Office. A student may officially withdraw from a course through the first two thirds of the time period for that course and will receive a grade of W. April 6, 2018 is the end of the withdrawal period for the Spring 2018 semester. For more information, please refer to the Academic Information, Procedures & Regulations section of the college catalog.

- ACADEMIC HONESTY: Academic honesty means that students are expected to do their own work and follow the rules regarding acts such as cheating and plagiarism. Breaking the rules of academic honesty will result in immediate disciplinary consequences. For more information, refer to the *Academic Rights & Responsibilities* section of the college catalog.
- **EMAIL USE:** For this course, students are required to make use of their <u>mysunyulster.edu</u> portal e-mail for all communication with the instructor. This is especially important when communicating concerning issues of grades, exams, etc. This use of portal e-mail for faculty- student communication complies with Federal law (FERPA).

FINAL EXAM: To be announced.