Instructor: Robin Schipritt
Office Location: Lippitt 101G
Email: All course communication should take place **through Sakai messaging**
Office Hours: by appointment
Meeting Times: online
Credits: 3
Prerequisites: None

COURSE DESCRIPTION:

MTH 107 is a special topics course that satisfies the general education requirement for math at the University of Rhode Island. This course is designed for students who do NOT have precalculus or calculus requirements in their program of study. MTH 107 covers the following concepts of modern mathematics: **Logic**, **Sets and Counting**, **Probability**, and **Statistics**.

TECHNOLOGY REQUIREMENTS

Reliable Internet connection: problems with connectivity **are not an excuse** for missing/late assignments.

Ability to scan documents: All assignments should be uploaded as **single PDF** (this means that I should only have to click on **one** link to read your file)**.**

More information on technology, including helpful links, is posted on the course Sakai site.

SUGGESTED TEXTBOOK and MATERIALS:

Mathematics: A Practical Odyssey (University of Rhode Island custom edition), by Johnson & Mowry.

A 4 or 6 function calculator may be used to check your work – but **all steps must be written out**.
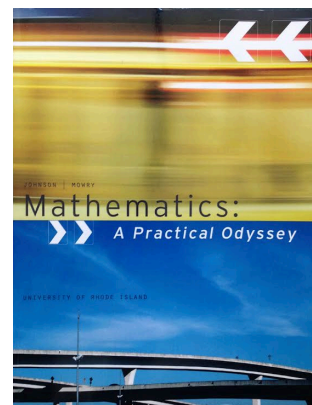
CLASSROOM PROTOCOL:

For this online course, Sakai is our "classroom." In the online learning environment, "attendance" is measured by your presence in the site as well as your contributions to the site. The importance of regular log-ins and active participation cannot be overstated. I will gauge your participation by your **regular, on-time forum postings and responses, and timely assignment submissions**. If you've never taken an online course, Sakai will take some getting used to, and it will be easy to forget about the course from time to time. I recommend that you get in the habit of daily attendance online to maximize your successful completion of the course.

PROGRAM OUTCOMES AND COURSE OBJECTIVES:

MSC Rubric Element:	STEM Rubric Elements:
A.1. Finds The Necessary Information	1. Identifies facts, Vocabulary, definitions, terms, concepts, people
A.2. Make a Plan For How To Solve The Problem	
B.1. Performs the Calculation Or Analysis	2. Recognizes concepts or tools relevant for application to a task
B.2. Checks the Answer For Accuracy	
C.1. Explains The Steps Taken	5. Analyzes: Applies concepts to address the task
C.2. Articulates The Solution	6. Analyzes: Deconstructs and contextualizes 7.
C.3. Presents The Problem And Solution In An Organized, Clear, and Concise Manner	Analyzes: Evaluates and justifies

MTH 107 satisfies the MSC and STEM rubrics (full coverage) for general education.
At the end of the course the student should be able to:

1. Distinguish an argument from other forms of verbal expression recognizing their premises and conclusions.
   RUBRIC ELEMEMTS: Stem 1, Stem 6, Stem 7, A1, C1, C2, C3

2. Recognize valid and invalid, sound and unsound, syllogistic argument forms.
   RUBRIC ELEMEMTS: Stem 1, Stem 6, Stem 7, A1, C1, C2, C3

3. Detectcontradictionsandlackofconsistencyamongthepremisesofanargument.
   RUBRIC ELEMEMTS: Stem 5, Stem 6, Stem7, C1, C2, C3

4. Represent propositions symbolically using variables and logic connectives.
   RUBRIC ELEMEMTS: Stem 1, Stem 2, A2, C2, C3

5. Give precise logical meanings of the logical connectives: NOT, AND, OR, ONLY IF, IF AND ONLY IF.
   RUBRIC ELEMEMTS: Stem 2, Stem 6, A2, C1, C2, C3

6. Parse a statement to detect the linguistic equivalent of parentheses.
   RUBRIC ELEMEMTS: Stem 5, A2

7. Build a Truth Table to evaluate a statement.
   RUBRIC ELEMEMTS: Stem 2, Stem 6, A2, B1, B2, C1, C2, C3

8. Use the concept of "set" and "member" to represent relationships between objects and ideas.
   RUBRIC ELEMEMTS: Stem 1, Stem 2, A1

9. Reproduce key definitions used in set theory: negation, intersection, union, subset, superset, equivalence, and their notations.
   RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, A1, A2, B1, B2, C1, C2, C3

10. Determine the number of items in a set by counting in new and different ways using factorials, combinations, and permutations.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, B1, B2, C1, C2, C3

11. Use a Venn diagram to visually represent sets and facilitate counting.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, A2, B1, B2, C1, C2, C3

12. Calculate any probability given the cardinality of the appropriate sets involved.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, B1, B2, C1, C2, C3

13. Calculate simple, conditional, and joint probabilities by counting the members in the appropriate sets.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, A2, B1, B2, C1, C2, C3

14. Apply rules of probability to real world situations like medical tests and casino games.
    RUBRIC ELEMEMTS: Stem 5, Stem 6, B1, B2, C1, C2, C3

15. Recognize simple random processes (like dice rolling etc...) and calculate their expected value.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, A1, B1, B2, C1, C2, C3

16. Draw a histogram to represent a set of data.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, A2, C1, C2, C3

17. Calculate the mean, median, mode, standard deviation, and variance of a data set which is either grouped or ungrouped.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, B1, B2, C1, C2, C3

18. Determine z-scores and use a normal distribution table to solve problems involving data that is normally distributed.
    RUBRIC ELEMEMTS: Stem 1, Stem 2, Stem 5, Stem 6, Stem 7, B1, B2, C1, C2, C3

This course is divided into five modules. Each module on Sakai contains the topics for that lesson, notes/resources, the suggested and assigned homework problems, chapter worksheets, and quizzes.

ASSIGNMENTS AND GRADING POLICY:

All chapter worksheets and homework assignments must be submitted using the **Assignments tool** in Sakai. **Do not submit assignments via email - I will not accept them!** You can scan and upload handwritten assignments (check out GeniusScan – a free app for your smart phone that converts photos to PDF files). **The only acceptable file formats for submissions are single PDF**(preferred) **or JPEG files**.

EVALUATION METHODS:

Four 10pt discussion forums (Sakai → Forums):	40pts

You will be required to participate in the discussion groups, i.e. Forums. Topics will be posted as the course progresses. There will be one Forum each week.

At the end of a discussion I will grade each student. No make-ups allowed. **This is supposed to be interactive and you will lose points for not posting in a timely matter** (see rubric below).

Final/all forum posts have the same deadline as that chapters' homework and can be found in the course outline. Students who do not post appropriately will receive 0 points.

Criteria	4pts	2pts	1pt
Content	Student responds to the posted questions with **thoughtful ideas**, **uses concepts in the text**, and/or **adds additional information**. **Posts encourage interaction** with other students.	Student responds to the posted question in a way that **does not clearly use the concepts in the text**. **Posts are all directed at one student** or **rarely interact** with other students' posts.	Student responds to the posted question but **misses the main idea**. An incorrect fact in a post receives a maximum of 1pt. **No interaction** with other students is made.
Participation	Student makes **initial post** and responds to **at least two other posts**. Posts are made in a **timely manner** (posts should be made on **different days** to encourage interaction among students).	Student makes **initial post** and responds to only **one other post**. Posts are not spaced appropriately.	Student **only posts their initial post**. **No points will be given without an original post**. **All posts are made on the same day**.
Mechanics	NA	Responses are **well written** with little to no mechanical errors.	Mechanical errors **detract from the content** of the post.

Four 30pt chapter quizzes (Sakai → Links in Weekly Lessons):	120pts

Quizzes will be given through Sakai. There are 4 quizzes (one for each chapter). Each quiz will have 15 multiple-choice questions.

The quiz for that chapter will **be available the whole time we are covering the chapter**. You may take the quiz at any time, but you must **complete** the quiz **before** the assigned date/time.

You will have a **maximum of two hours** to complete a quiz (timer starts once you begin, logging out of the page **does not stop the timer**). You will be allowed **two tries per quiz**. The computer will accept the best score.

Failure to take a quiz in the given time slot will be given a zero. **No exceptions!**

Four 10pt chapter worksheets (Sakai → Assignments): Each problem (or answer) is worth 1pt. Problems with multiple parts (or that require multiple answers) will have each part (or answer) worth 1. Each assignment is worth 10 points. For example, if an assignment has 18 problems (counting multiple parts e.g. 3a, 3b, 3c 3d would count as 4 problems or if a problem requires 2 answers that would count as 2) and you miss 2 problems, your score is $16/18 = 8.9$ points. **Assignments with only answers and no work will not be graded**. Assignment due dates are posted on Sakai. **Not late assignments will be accepted**.	40pts
Statistics Project (Sakai → Assignments) After completing Chapter4, each student will complete a project using the concepts of statistics learned. A rubric will be provided with a list of sample topics. Each student should choose a unique topic. Projects will be due on the last day of class. **No late projects will be accepted.**	50pts
Intro to Sakai Assignments (specific instructions on Sakai)	10pts
Total	260pts

GRADING SCALE:

A (100% – 93%)	A- (92% – 90%)	B+ (89% – 87%)	B (86% – 83%)	B- (82% – 80%)
C+ (79% – 77%)	C (76% – 73%)	C- (72% – 70%)	D+ (69% – 67%)	D (66% – 60%)
F (59% – 0%)	To Compute Your Grade: (your total points)/260 x 100 = your percentage			

ACADEMIC SUPPORT SERIVCES
Office of Disability Services
1. Any student with a documented disability is welcome to contact me early in the semester so that we may work out reasonable accommodations to support your success in this course. Students should also contact Disability Services for Students, Office of Student Life, 330 Memorial Union, 401-874-2098.
2. From the University Manual: **6.40.10 and 6.40.11 Accommodations for Qualified Students With Disabilities.** Students are expected to notify faculty at the onset of the semester if any special considerations are required in the classroom. If any special considerations are required for examinations, it is expected the student will notify the faculty a week before the examination with the appropriate paperwork.

PROFESSIONAL CONDUCT
Cheating and plagiarism are serious academic offenses, which are dealt with firmly by the College and University. Scholastic integrity presumes that students are honest in all academic work. **Cheating** is the failure to give credit for work not done independently (i.e., submitting a paper written by someone other than yourself), unauthorized communication during an examination, or the claiming of credit for work not done (i.e., falsifying information). **Plagiarism** is the failure to give credit for another person's written or oral statement, thereby falsely presuming that such work is originally and solely your own.

If you have any doubt about what constitutes plagiarism, visit the following website: http://gervaseprograms.georgetown.edu/hc/plagiarism.html, the URI Student Handbook, and University Manual sections on plagiarism and cheating at http://www.uri.edu/facsen/8.20-8.27.html-cheating.

Students are expected to be honest in all academic work. A student's name on any written work, quiz or exam shall be regarded as assurance that the work is the result of the student's own independent thought and study. Work should be stated in the student's own words, properly attributed to its source. Students have an obligation to know how to quote, paraphrase, summarize, cite and reference the work of others with integrity. The following are examples of academic dishonesty.

- Using material, directly or paraphrasing, from published sources (print or electronic) without appropriate citation;
- Claiming disproportionate credit for work not done independently;
- Unauthorized possession or access to exams;
- Unauthorized communication during exams;
- Unauthorized use of another's work or preparing work for another student;
- Taking an exam for another student;
- Altering or attempting to alter grades;
- The use of notes or electronic devices to gain an unauthorized advantage during exams;
- Fabricating or falsifying facts, data or references;
- Facilitating or aiding another's academic dishonesty;
- Submitting the same paper for more than one course without prior approval from the Instructor.

Please note the following section from the **University Manual:**
8.27.17. Instructors shall have the explicit duty to take action in known cases of cheating or plagiarism. The instructor shall have the right to fail a student on the assignment on which the instructor has determined that a student has cheated or plagiarized. The circumstances of this failure shall be reported to the student's academic dean, the instructor's dean, and the Office of Student Life. The student may appeal the matter to the instructor's dean, and the decision by the dean shall be expeditious and final.

Such action will be initiated by the instructor if it is determined that any written assignment is copied or falsified or inappropriately referenced.

Any good writer's handbook as well as reputable online resources will offer help on matters of plagiarism and instruct you on how to acknowledge source material. If you need more help understanding when to cite something or how to indicate your references, PLEASE ASK.

Please note: Students are responsible for being familiar with and adhering to the published "**Community Standards of Behavior: University Policies and Regulations"** which can be accessed in the **University Student Handbook.**