# MATH 105-W01, M01 – Mathematics: Applications, Appreciation and Skills Spring 2024 Syllabus

**Instructor:** Grant Kopitzke

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Classroom: Wausau 191, Marshfield 126

Class Meeting Time: 9:00 – 9:50 Monday, Wednesday, Friday



Office Hours: Office hours are a time I set aside each week for any of my students to come to my office to meet with me and get their course-related questions answered. My office hours this semester will be 12:00-1:00 MTWR in my office (location listed above). If attending office hours in person, you can drop in unannounced. Some Wednesdays I will be at the Marshfield campus. You'll be notified of these dates in class. When I'm in Marshfield, students in section M01 can feel free to meet with me in person.

If you are not attending classes physically at the Wausau campus, then please feel free to attend office hours virtually via Zoom. To do so, please send me an email asking to meet, and I'll send you the link to the Zoom room.

#### **Course Materials:**

- 1. *Contemporary Mathematics*, by Donna Kirk. (This textbook is open source, and freely available at this link.
- 2. *The Heart of Mathematics: An Invitation to Effective Thinking, 3<sup>rd</sup> Ed.*, by Edward Burger & Michael Starbird. (A physical copy of this textbook can be obtained through the UWSP bookstore)

<u>Calculators:</u> You will likely want a calculator for this course (especially for the sections on probability, statistics, and financial math). A scientific calculator will be sufficient (something like a TI30), but any calculator will do. However, smart phone/smart watch calculators will not be allowed on exams.

**Prerequisites:** MATH 090 or suitable placement test score.

<u>Communication:</u> All communication will be conducted in class, on Canvas, or via email. I expect you will all be coming to class every day, and that you will be checking Canvas and checking your UWSP email at least once a day (at minimum). I recommend downloading the Microsoft Outlook app on your phone and logging into your UWSP email on there so you will be notified immediately when you receive an email or Canvas message.

#### **Tutoring:**

Your segregated fees (which you've already paid) partially go towards paying for free tutoring services. At the Wausau campus, these services take the form of free DUO tutors (on the 2<sup>nd</sup> floor of the North Hall) and free TRIO tutors (in the library). At the Marshfield campus, you also have free TRIO tutors in the library. I strongly encourage you to take advantage of these amazing resources (which you've already paid for). All these tutors have walk-in hours when you don't have to make an appointment. If you have questions, but you're not available during my office hours – please consider visiting the math

tutors in DUO or TRIO. I've found in past semesters that many of my top students have become so by utilizing these resources.

## **Attendance Policy:**

There are two sections of this course:

W01 – students who are enrolled in the course at the Wausau campus.

M01 – students who are enrolled in the course at the Marshfield campus.

I will generally be teaching from the classroom at the Wausau campus but will occasionally drive to Marshfield to teach from there on a Wednesday.

Students enrolled in section W01 will be expected to attend class in-person at the Wausau campus, and actively participate in class. Students enrolled in section M01 will be expected to attend class in-person at the Marshfield campus, and actively participate in class.

I will be taking attendance every day and failure to attend will impact your grade in the course (for details, see "Daily Quizzes" below).

#### **Course Description/Content:**

(3 Credits) This course focuses on developing critical thinking skills across all disciplines. In mathematics, critical thinking helps us to identify mathematical problems, transform them into solvable problems, then solve them using appropriate techniques. Mathematics is like most studies in that persistence, focus, and contemplation are required to foster a deeper and enduring understanding of the concepts. Topics will include probability, statistics, geometry, voting theory, graph theory, mathematics of finance, and others.

#### **Quantitative Literacy Learning Outcomes:**

- 1. Select, analyze & interpret appropriate numerical data used in everyday life in numerical and graphical format.
- 2. Identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications.
- 3. Construct a conclusion using quantitative justification.

## **Grading Policy:**

Your course grades will be computed as follows:

Daily Quizzes	10%
Homework	25%
Term Project	25%
Two Exams	40% (20% each)

# Exams (40% of your grade in the course):

There will be two one-hour in-class exams. These exams will be timed, proctored, and taken at either the Marshfield or Wausau campuses. If you are taking the class at Wausau, you will be required to take exams in-person in class at the scheduled time. If you are enrolled in section M01 at Marshfield, you will be required to take exams in the Marshfield classroom at the scheduled time. Tentative exam dates are listed in the calendar at the end of the syllabus. The exams will be open-book and open-note and will consist of problems like what we have done in class, and what you have done in your homework.

## Daily Quizzes (10% of your grade in the course):

We will start each class with a 5-minute quiz problem on a topic from the previous day of class. You will need to complete this problem on scratch paper within the specified time period and upload a picture to the Canvas Dropbox using your phone. Submissions will be graded on a scale of 1 to 3 according to the following rubric:

- 1 = you're present, but your work is all incorrect, or you didn't submit your work on time.
- 2 = Your work is partially correct, or it's right, but poorly organized and hard to read.
- 3 = 100% right and neatly organized.

You must be present at the start of class to take the quiz – there will be no makeups, regardless of circumstances.

## Online Homework (25% of your grade in the course):

Roughly each week you will have problem sets due on the online homework platform MyOpenMath. This platform is free and integrates into Canvas. These problem sets will have specific due dates that will be visible on Canvas, and they will need to be completed and submitted by that due date. To accommodate everyone's schedules, these problem sets will generally be due on Sunday nights (due dates may be different during exam weeks). If you don't understand some problems on a homework set and need to get extra help, you will usually have enough time to do so before the problem set is due – if you get started early enough. However, sometimes life happens, so you will each start the semester with three late passes that you can use to get an extra week on a single homework assignment.

## Term Project (25% of your grade in the course):

Each student will need to select some mathematical topic or problem of personal interest outside or beyond what we've covered in this class and prepare a 5-to-10-minute PowerPoint presentation on that topic. You will then sign up for a time slot at the end of the semester (possibly during our final exam period) in which you will present your research topic. You may work individually, or in a group of two (no more than two). We will have one or two consults during the semester to discuss your project and presentation. I will post thorough instructions for this project, and the rubric your work will be graded with. Any topic with Mathematical merit will be allowed, but each student's/group's topic must be approved by myself. Work on your course project will take place mostly after spring break.

#### **Policy on Missed Exams and Activities:**

If a conflict prevents you from taking an exam or participating in an in-class activity, you should notify me well beforehand. If I'm notified far enough in advance, then accommodations may be made. Not all absences will be excused. For example, planned family vacations that fall on an important class day (e.g., an exam day, or presentation day) are not excused absences and will not be accommodated. The following list is the most common excused absences that may be accommodated:

- 1. An illness with a doctor's note submitted to the instructor prior to the date of the absence.
- 2. A documented school athletics event.

# **Grading Scale:**

Course Grade (%) at or above	93	90	87	83	80	77	73	70	67	60
Will receive at least a grade of	A	A-	B+	В	B-	C+	С	C-	D+	D

## **Academic Misconduct:**

All students are expected to know the UWSP Community Rights & Responsibilities, and the Student Academic Standards and Disciplinary Procedures found on the Dean of Students webpage at: https://www.uwsp.edu/dos/Pages/Student-Conduct.aspx

Any instances of perceived academic misconduct will be investigated following the Student Academic Disciplinary Procedures:

https://www3.uwsp.edu/dos/Documents/UWS%2014-1.pdf

## **Tentative Schedule (Subject to Change):**

Week	Sections				
January 22-26	Go over syllabus,				
January 29 – February 2	Financial Math				
February 65–9	Financial Math				
<b>February 12 - 16</b>	Statistics				
<b>February 19 – 23</b>	Statistics				
February 26 – March 1	Probability				
March 4 – 8	Probability				
March 11 – 15	Exam 1				
March 18 – 22	Spring Break				
March 25 – 29	Graph Theory				
April 1 – 5	Graph Theory				
April 8 – 12	Voting Theory				
April 15 – 19	Voting Theory				
April 22 – 26	Fair Apportionment				
April 29 – May 3	Fair Apportionment				
May 6 – 10	Exam 2 & Presentations				
May 13 – 17	Final Exams (Presentations)				

**Religious Beliefs:** Students' sincerely held religious beliefs will be reasonably accommodated with respect to all examinations and other academic requirements. According to UWS 22.03, you must notify the instructor within the first three weeks of classes about specific dates which require accommodation. See the link below:

https://www.uwsp.edu/dos/Documents/UWS CHAPTER 22.docx

#### **UWSP Technology Support:**

• Seek assistance from the IT Service Desk o IT Service Desk Phone: 715-346-4357 o IT Service Desk Email: itsvdesk@uwsp.edu

<u>University Policy Regarding Students with Disabilities:</u> Information regarding Section 504 of the Rehabilitation Act or the Americans with Disabilities Act can be found at the UWSP Disability and Assistive Technology Center site: <a href="https://www.uwsp.edu/datc">https://www.uwsp.edu/datc</a>

If you have a documented disability and verification from the Disability Resource Center and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to DRC and meet with a counselor to request special accommodation before classes start. The DRC is located in CCC 108 (Main campus) and can be contacted by phone at (715) 346-3365 or via email at <a href="mailto:drc@uwsp.edu">drc@uwsp.edu</a>.