MATH 255 – W01, M01 – ELEMENTARY STATISTICAL METHODS SPRING 2024 SYLLABUS

Instructor: Grant Kopitzke Office: 087-B (Wausau Branch Main Building) Phone: None Email: gkopitzk@uwsp.edu

<u>Classroom:</u> Wausau 191, Marshfield 126 <u>Class Meeting Time:</u> 8:00 – 8:50 MTWF



<u>Office Hours</u>: 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.

Textbook:

- OpenIntro Statistics 4th edition by Diez, Cetinkaya-Rundel, and Barr. Link: <u>https://leanpub.com/os</u>
- 2. *Introduction to the Practice of Statistics 10th edition* by Moore, McCabe, and Craig. ISBN#: 9781429294522.

Technology: You will need a calculator and a computer for this class:

<u>Canvas</u> – All grades, homework assignments, and course announcements will be posted to our course Canvas page. Please make sure you have access to it immediately.

<u>Calculators</u> – You will need a calculator to succeed in this course. You will need a calculator that can calculate the mean, and standard deviation of a data set, and the correlation coefficient and least squares regression line. Most scientific calculators and graphing calculators can do these things, but it's easier on some than on others. A TI-30X IIS is sufficient for what we need in this course. Phone calculators and smart watches can be used on homework assignments but are not allowed for quizzes and exams (for obvious reasons).

<u>Computer Use</u> – We may occasionally have homework assignments that require the use of computer software. If you don't have access to a computer, you can use one in the school's computer labs.

Communication: All communication will be conducted in class, on Canvas, or via email. I expect you will all check Canvas and your UWSP email at least once a day at minimum, but preferably twice a day. 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.

Course Description: 4 Credits. Fundamental concepts and techniques that underlie applications to various disciplines, including descriptive statistics; averages; dispersion; random sampling; binomial, normal, Student T, Chi-square, and F distributions; estimation and tests of hypothesis; linear regression and correlation; laboratory emphasis on sampling and applications.

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 the "Attendance and Participation" below).

<u>Classroom Safety:</u> For all our safety, the classroom door will be closed and locked at the start of class. If you are not present at that time, you will be marked absent for the day.

<u>Course Learning Outcomes:</u> The two branches of introductory statistics are descriptive and inferential:

- Descriptive Statistics numerical and graphical means to study, summarize and communicate about data.
- Inferential Statistics mathematical methods to make conclusions or decisions based on partial information.

By the end of the course, you will understand and use some of the most popular statistical methods, including those in the catalog description above. In addition, you will be alert to issues of data quality and scientific approaches to gathering information.

<u>General Education Learning Outcomes:</u> This course satisfies the Quantitative Literacy (QL) component of the General Education Program. These general 'deliverables' will be emphasized throughout the course. Successful students will be able to:

• Select, analyze, and interpret appropriate numerical data used in everyday life in numerical and graphical format.

• Identify and apply appropriate strategies of quantitative problem solving in theoretical and practical applications.

• Construct a conclusion using quantitative justification.

In general, I want you to approach data like a scientist. The main tasks involved are: Exploring data, quantifying uncertainty, drawing valid conclusions, and communicating results using written and graphical methods.

<u>Grades:</u> Your grade in the course will depend on your performance in four different categories – each of which contributes a specific weight (percentage) to your overall grade:

Grade Item	<u>% of Overall Grade</u>
Attendance & Participation	5%
Online Homework	20%
In-Class Quizzes	50%
Final Exam	25%

Below are some details of what you can expect from each of these grade categories, and what I expect out of each of you.

<u>Attendance and Participation (5%)</u>: You will be expected to attend class every day and participate. Some days will be ordinary lecture-based classes (in which you'll only be graded based on attendance), but some days we may have worksheets, mini-quizzes, or other activities that you will be expected to participate in.

Online Homework (20% of your overall grade): Homework will be worth 20% of your grade in the class and will be completed online on MyOpenMath (which can be accessed through Canvas). We will have approximately one assignment per week. If you don't finish a homework assignment on time, you will have three "late passes" that you can use at any time throughout the semester to get an extra week to complete an assignment. Homework will usually be due each Sunday night, or the night before a quiz. Once a homework assignment is completed and the due date has passed, you will be able to access the homework assignments to practice different versions of those problems – this is a great way to study for quizzes.

Quizzes (50% of your overall grade): We will have approximately 4 quizzes throughout the semester that will be taken on paper in class. You may use calculators, but no notes or books will be allowed. On some quizzes you may be given a formula sheet or certain tables. If you understand the topic well, you should be able to complete a quiz in 30 minutes, but you'll have the full 50-minute period to take the quiz. If you do poorly on a quiz, but you completed all the online homework problems from that unit and got at least an 80% on all the online homework assignments from that unit, then you will have one week from the time it's handed back to make corrections and resubmit your quiz for up to 30% of your missed points back. Since you will be able to make corrections on quiz problems, quizzes will not be marked with exactly what you did wrong. If you got a problem wrong, an "X" will appear next to that problem, and points will be deducted. It will be up to you to figure out your mistakes and correct those mistakes.

Final Exam (25% of your overall grade): We will have a cumulative final exam in person at the end of the semester. Failure to take the test will result in 0 points for that grade item – which will end up bringing your grade down substantially. There will be no makeups for the final exam, as the semester will be over at that point.

Policy on Late Work and Missed Quizzes/Exams:

No late homework assignments or other non-quiz/exam assignments will be accepted, except for the homework assignments where you use a late pass. Some people claim that college is to prepare you for the workforce – debatable as that may be, punctuality and time management are important qualities for any employee (or employer), and I expect both.

If a conflict prevents you from taking a quiz or the final exam, you should contact me well before the quiz/exam, if possible, and arrange for an early test. Not all absences will be excused. 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 quiz/exam.
- 2. A documented school athletics event.
- 3. Jury duty or a court date, with documentation.
- 4. Military obligations, with documentation.

To be eligible for a make-up quiz/exam, you must notify me via email or Canvas message at least 24 hours before the quiz/exam is scheduled to take place, and you must provide documentation that confirms that your absence should be excused. Some examples of absences that may not be excused include family vacations, oversleeping, car trouble, or being "out of town" (for reasons other than a documented school athletics event, military obligations, or a viable excused absence).

Grading Scale:

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

Tentative Schedule for the Semester (Subject to change)						
Week	Sections	Assignments/Quizzes				
January 22-26	Chapter 1	Online Homework				
January 29 – February 2	Chapter 2	Online Homework				
February 65– 9	Chapter 3	Online Homework				
February 12 - 16	Chapter 3	Online Homework & Quiz 1				
February 19 – 23	Chapter 4	Online Homework				
February 26 – March 1	Chapter 4	Online Homework				
March 4 – 8	Chapter 5	Online Homework				
March 11 – 15	Chapter 5	Online Homework & Quiz 2				
March 18 – 22	Spring Break	Spring Break				
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March 25 – 29	Chapter 6	Online Homework				
March 25 – 29 April 1 – 5	Chapter 6 Chapter 6	Online Homework Online Homework				
March 25 – 29 April 1 – 5 April 8 – 12	Chapter 6 Chapter 6 Chapter 7	Online Homework Online Homework Online Homework & Quiz 3				
March 25 – 29 April 1 – 5 April 8 – 12 April 15 – 19	Chapter 6 Chapter 6 Chapter 7 Chapter 7	Online Homework Online Homework Online Homework & Quiz 3 Online Homework				
March 25 – 29 April 1 – 5 April 8 – 12 April 15 – 19 April 22 – 26	Chapter 6 Chapter 6 Chapter 7 Chapter 7 Chapter 8	Online Homework Online Homework Online Homework & Quiz 3 Online Homework Online Homework				
March 25 – 29 April 1 – 5 April 8 – 12 April 15 – 19 April 22 – 26 April 29 – May 3	Chapter 6 Chapter 6 Chapter 7 Chapter 7 Chapter 8 Chapter 8	Online Homework Online Homework Online Homework & Quiz 3 Online Homework Online Homework Online Homework				
March 25 – 29 April 1 – 5 April 8 – 12 April 15 – 19 April 22 – 26 April 29 – May 3 May 6 – 10	Chapter 6 Chapter 6 Chapter 7 Chapter 7 Chapter 8 Chapter 8 Chapter 9	Online Homework Online Homework Online Homework & Quiz 3 Online Homework Online Homework Online Homework Quiz 4				

Tentative Schedule for the Semester (subject to change)

<u>Religious Beliefs</u>: 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: <u>https://www.uwsp.edu/dos/Documents/UWS CHAPTER 22.docx</u>

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

<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: <u>https://www.uwsp.edu/datc</u>

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 drc@uwsp.edu.

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