Math 255 Section W-01 (9-10:50am TTh)
and Section W-02 (2-3:50pm TTh)
Room 193   Fall 2022

Instructor: Maggie Milkovich   **Office:** 087A   **Email:** mmilkovi@uwsp.edu

Final Exam: December 19, 5-7pm in Room 233   **Office Hours:** 11am-Noon and 1-1:50pm on Tuesdays and Thursdays (other times may be arranged via Zoom… just email me)

Course Description: MATH 255. Elementary Statistical Methods. 4 cr. 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. Does not count toward math major/minor, or major for teacher certification. **Prerequisite**: Math 95 or suitable placement test score. GDR: MATH BS BM/BFA

Required Text: Introduction to the Practice of Statistics, Tenth Edition by Moore, McCabe and Craig, published by W. H. Freeman and Company. ISBN:978-1-3192-4444-6, available thru text rental.
PLEASE NOTE – students are expected to actually READ the textbook! I suggest reading ahead so that you have been exposed to the concepts I will be teaching you before they are covered in class. We will mostly go through chapters 1 – 9 of the book in order. (One section of ch. 2 will be postponed until after ch. 8.)

Course Goals

Students are expected to understand statistical concepts. This understanding is to be demonstrated by doing assigned problems from the book, completing online homework, and exam performance, as well as by class discussion. We will cover most of chapters 1 – 9 in the text.

> Chapter 1 – Looking at Data – Distributions
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> Chapter 2 – Looking at Data – Relationships
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> Chapter 3 – Producing Data
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> Chapter 4 – Probability: The Study of Randomness
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> Chapter 5 – Sampling Distributions
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> Chapter 6 – Introduction to Inference
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> Chapter 7 – Inference for Means
>
> Chapter 8 - Inference for Proportions
>
> Chapter 9 – Inference for Categorical Variables.

Critical understanding of the concepts will be necessary. Thinking is required.

> ***After completing this course, students will be able to: (1) Select, analyze and 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, and (3) construct a conclusion using quantitative justification.***

Attendance will be taken almost every day. It is obviously to your advantage to be in class unless you are ill. Therefore, attendance is expected at every class meeting. Attendance per se does not count toward your grade, but clearly poor attendance will have a negative impact on your grade, so it is wise to attend class. It is the student's responsibility to know what we covered in class, so ask a fellow student and get notes from someone. Please do not email me and ask if you "missed anything important"! **IF YOU ARE SICK (ESPECIALLY WITH FLU or COVID SYMPTOMS) please STAY HOME.** An email notifying me of your absence due to illness or other circumstances is appreciated if you miss more than two classes in a row.

CANVAS: Course documents (online assignments, worksheets and worksheet keys, the syllabus, the list of suggested problems, grades etc.) will be posted in Canvas. Announcements will also be posted here, so check Canvas often. You should set your Canvas notifications to alert you to new announcements as well.

Tutoring

The **DUO Center**, located in room 224 on the Wausau campus, is open to first-generation students, Pell Grant-eligible students, and students with disabilities on the Wausau campus. It provides students with access to professional tutors in Math and writing. DUO staff meet one-on-one with students to answer questions, prepare for assignments/exams/papers, and simply as a resource to students. Students can meet with the tutor/s regularly or on an as-needed basis – in other words, they support individual students in individualized ways. To learn more about DUO, contact your adviser, stop by the DUO Center, or contact Lori Randall, Academic Success Coordinator at the UWSP at Wausau campus, lori.randall@uwsp.edu .

Calculators and Computers

A calculator will be required for this course. It must be capable of doing ***two variable statistics*** (including linear correlation and regression) and may be used on all exams. If you are going to purchase a calculator for this course, a good one might be the **TI-30X IIS.** It's easy to use, easy to find, and it doesn't cost much (less than $10). Any scientific calculator that can handle two variable statistics will do. (A graphing calculator is fine and a TI-83 Plus or TI-84 is very "user-friendly" for stats; I would not recommend *purchasing* a graphing calculator unless you will need it for other math classes.) You MAY NOT use your cell phone calculator on exams (specifically, you may not use a device that can communicate with others.)

The computer software MINITAB will be used in this course (mostly for chapters 1, 2, 7, 8 and 9). The program is very user-friendly, especially if you have any computer background to speak of. Instructional videos for using Minitab (as well as Excel and TI graphing calculators) are available online by searching YouTube. I have also posted a Minitab Guide for you in Canvas. Minitab will allow us to more easily analyze data and will save a lot of time. ***YOU MUST BE LOGGED INTO A CAMPUS NETWORK COMPUTER ORDER TO USE THIS SOFTWARE.*** When off campus you may remote into one of the campus labs – contact the HELP Desk if you need guidance on doing this. Using Excel (or a TI graphing calculator) instead of Minitab is sometimes a viable option.

Assignments/Worksheets/Practice Problems

As with all math courses, it is very important to DO problems yourself. It is one thing to follow what I am doing in class, and another altogether to be able to do it on your own. You must practice! In light of this, I will be posting all the worksheets (in Canvas) and giving you a list of additional exercises from the textbook that you will also be responsible for knowing how to do. If I want you to print a worksheet to use in class, I will let you know beforehand. Please take responsibility for your learning and do these problems.

Some of the worksheets will be officially assigned to be submitted by a due date so that I can check your work and give you feedback, with answers posted after the given deadline. It will be your responsibility to check your answers against the posted answer keys. ASK QUESTIONS when you need to!

Unit Exams (80% of your grade)

There will be four unit exams. Each one will count 20% of your total grade. For each exam you will be allowed to have a one-page crib sheet. Save them and you may use them (plus one more if you like) for the final.

Please bring your textbook (or hard copies of relevant tables),
your calculator and crib sheet to all exams.

All exam dates will be verified within one week of the exam.

Topics covered for the exams (<u>dates subject to change</u>):

Exam I: Chapters 1 – 2   *Tentative date during week 4 or 5*

Exam II: Chapters 3 – 4   *Tentative date during week7 or 8*

Exam III: Chapters 5, 6, 7.1   *Tentative date during week 13*

*Exam IV: Chapters 7, 8, 2.6 (and 9?)   *(3 hrs)*   *Due date Wednesday of week 15*

*Exam IV will be taken online in Canvas. More information later.
(You must work on your own, and will be using Minitab for some of the questions.)

Final Exam (20% of your grade)

The final exam will be ***comprehensive*** and will count as 20% of your final grade. The final will be given on Monday, December 19, from 5 to 7pm in Room 233 **You may use your previously prepared crib sheets along with one additional sheet (a "sheet" is a regular 8.5x11 inch piece of paper, and no, I don't care if you write on only one side or two.** My only proviso is that you may not bring a magnifying glass to read your crib sheet(s)!).

Grading Scale: **A:**   **≥ 92%**   **A – :**   **≥ 90% but < 92%**

     B + : **≥ 88% but < 90%**   **B :**   **≥ 82% but < 88%**   **B – :**   **≥ 80% but < 82%**

     C + : **≥ 78% but < 80%**   **C :**   **≥ 72% but < 78%**   **C – :**   **≥ 70% but < 72%**

     D + : **≥ 68% but < 70%**   **D :**   **≥ 64% but < 68%**   **F :**   **< 64%**

Academic Integrity: (Cheating policy)

Any act of academic dishonesty will be dealt with by applying the most stringent penalties permitted. Cheating includes but is not limited to receiving help during exams and submitting homework without properly acknowledging persons who assisted you. Please read carefully the policy found at: http://www.uwsp.edu/dos/Pages/Academic-Misconduct.aspx

Accommodations:

Special consideration may be made for students with disabilities. 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 http://www.uwsp.edu/disability/Pages/Student%20Resources/default.aspx. To request any accommodations relevant to this class, you should first discuss the matter first with the staff at the Center. Details regarding the documentation necessary to qualify for accommodation can be found on the website.

General Course Policies:

1) You may work with other students on worksheets, assigned exercises, etc., but NOT on exams.
2) Exams must be YOUR work only unless I have specifically said I am allowing you to work with a partner (on take-homes).
3) **In general, make-up exams are NOT allowed. If there is an unavoidable conflict, a make-up MAY be allowed, but ONLY IF you contact me IN ADVANCE. In case of an emergency, you MUST contact me (best via email) or call the department office (346-2120) BEFORE the exam begins. You must be prepared to document your absence.**

Classroom Atmosphere:

In order to maintain a comfortable learning atmosphere, I expect that students will:

1. Keep their cell phones turned off during class!
2. Refrain from foul/offensive language.
3. Not be embarrassed to raise their hands to ask questions or be corrected.
4. Send emails that are properly addressed in an appropriate tone that contain grammatically correct sentences. ("Hey prof, sry I wuz L8 2day LOL" is unacceptable, and I WILL NOT reply). I prefer to be addressed as Mrs. Milkovich, or as Professor Milkovich.
5. Contact their fellow classmates when absent. In other words, if you miss a class, DO NOT call/email me to find out what you missed.
6. Become familiar with this syllabus. It answers many common questions. Read it.
7. Be in class on time, prepared to work. That means you have prepared by doing your homework and have skimmed the new section and are trying to clarify concepts you have encountered (as opposed to using class time to initially introduce yourself to the concepts).

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		FALL SEMESTER 2022 **Maggie Milkovich**			
8:00 AM					
9:00 AM		**Math 255-1** **Room 193**		**Math 255-1** **Room 193**	
10:00 AM					
11:00 AM		office 087A		office 087A	
12:00 PM					
1:00 PM		office 087A		office 087A	
2:00 PM		**Math 255-2** **Room 193**		**Math 255-2** **Room 193**	
3:00 PM					
4:00 PM					
	OTHER OFFICE HOURS BY APPOINTMENT				