

# Math 255-07 Elementary Statistical Methods Fall 2020 Syllabus

<b>Maggie Milkovich</b> Email: <a href="mailto:mmilkovi@uwsp.edu">mmilkovi@uwsp.edu</a> ...this is my preferred method of contact	<b>Virtual Office Hours (thru Zoom in Canvas)</b>	<b>Final Exam:</b> <b>Friday, Dec 18,</b> <b>10:15-12:15</b>
	Mondays at 4:00, Tuesdays at 2:00, and Wednesdays at 4:00 NOTE: Other office hours by appointment*	

\* If you want to "meet" with me, send me an email. Then we can work out something via Zoom (which can be accessed from within our Canvas course).

**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, Eighth Edition by Moore, McCabe and Craig, published by W. H. Freeman and Company. ISBN: 978-1-4641-5893-3, available thru text rental.

## Course Goals/Learning Outcomes

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, Chapter 2 – Looking at Data – Relationships, Chapter 3 – Producing Data, Chapter 4 – Probability: The Study of Randomness, Chapter 5 – Sampling Distributions, Chapter 6 – Introduction to Inference, Chapter 7 – Inference for Distributions, Chapter 8 - Inference for Proportions, and Chapter 9 – Analysis of Two-Way Tables. 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.*

## Expected Instructor Response Times

- I will attempt to respond to student emails within 24 hours. If you have not received a reply from me within 24 hours please resend your email. (Typically you should expect a response within a few hours, though.)
- \*\*\*If you have a general course question (not confidential or personal in nature), please post it to the Course Q&A Discussion Forum found on the course homepage. I will post answers to all general questions there so that all students can view them. Students are encouraged to answer each other's questions, too.
- I will attempt to grade written work within 72 hours.

## Course Structure

This course will be delivered entirely online through the course management system Canvas. You will use your UWSP account to login to the course from the [Canvas Login Page](#). If you have not activated your UWSP account, please visit the [Manage Your Account](#) page to do so.

I have organized the course into weekly modules in Canvas. Each week you will have video lessons to watch. In addition to watching the lesson videos, you should also read your textbook, and complete the assigned book problems and practice worksheets.

All course documents (worksheets and worksheet keys, the syllabus, handouts etc.) will be posted in Canvas. I will also post announcements there, so check Canvas often.

**Due Dates:** It is your responsibility to make every effort to keep up with the scheduled work. Only in rare cases will I extend a homework due date beyond the automatic extension period. Exams may not be made up unless arranged with me ahead of time, and then only for sufficient reason. You may reach out for help at any time! Dates for the exams, and due dates for the assignments will in the calendar in Canvas.

**Important Note:** This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check Canvas for corrections or updates to the syllabus. Any changes will be clearly noted in a course announcement in Canvas!

## Student Expectations

In this course you will be expected to complete the following types of tasks.

- communicate via email
- view online videos
- complete homework and/or tests online
- upload documents to Canvas to submit your written work
- stay on task and meet the due dates
- contact your instructor (via email) or attend her office hours in Zoom whenever you need help
- participate in online discussions

## Technology

### Protecting your Data and Privacy

UW-System approved tools meet security, privacy, and data protection standards. For a list of approved tools, visit this website. <https://www.wisconsin.edu/dle/external-application-integration-requests/>

Tools not listed on the website linked above may not meet security, privacy, and data protection standards. If you have questions about tools, contact the UWSP IT Service Desk at 715-346-4357.

Here are steps you can take to protect your data and privacy.

- Use different usernames and passwords for each service you use
- Do not use your UWSP username and password for any other services
- Use secure versions of websites whenever possible (HTTPS instead of HTTP)
- Have updated antivirus software installed on your devices

### Course Technology Requirements

- View this website to see [minimum recommended computer and internet configurations for Canvas](#).
- You will also need access to the following tools to participate in this course:  
webcam      microphone      printer      a stable internet connection (don't rely on cellular)

## UWSP Technology Support

- Visit with a [Student Technology Tutor](#)
- Seek assistance from the [IT Service Desk](#) (Formerly HELP Desk)
  - o IT Service Desk Phone: 715-346-4357 (HELP)
  - o IT Service Desk Email: [techhelp@uwsp.edu](mailto:techhelp@uwsp.edu)

## Canvas Support



Click on the Help button in the global (left) navigation menu and note the options that appear:

Support Options	Explanations
<b>Ask Your Instructor a Question</b> Submit a question to your instructor	Use <b>Ask Your Instructor a Question</b> sparingly; technical questions are best reserved for Canvas personnel and help as detailed below.
<b>Chat with Canvas Support (Student)</b> Live Chat with Canvas Support 24x7!	<b>Chatting with Canvas Support (Student)</b> will initiate a <i>text chat</i> with Canvas support. Response can be qualified with severity level.
<b>Contact Canvas Support via email</b> Canvas support will email a response	<b>Contacting Canvas Support via email</b> will allow you to explain in detail or even upload a screenshot to show your particular difficulty.
<b>Contact Canvas Support via phone</b> Find the phone number for your institution	Calling the Canvas number will let Canvas know that you're from UWSP; phone option is available 24/7.
<b>Search the Canvas Guides</b> Find answers to common questions	<b>Searching the <a href="#">Canvas guides</a></b> connects you to documents that are searchable by issue. You may also opt for <a href="#">Canvas video guides</a> .
<b>Submit a Feature Idea</b> Have an idea to improve Canvas?	If you have an idea for Canvas that might make instructions or navigation easier, feel free to offer your thoughts through this <b>Submit a Feature Idea</b> avenue.

*All options are available 24/7; however, if you opt to email your instructor, she may not be available immediately.*

- Self-train on Canvas through the [Self-enrolling/paced Canvas training course](#)

## 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 \$15). 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.)

**The computer software MINITAB** will be used extensively in this course (mostly for chapters 1, 2, 7, 8 and 9), and so when we are in those chapters, you will need to use the program for at least portion of your work outside of class. The program is very user-friendly, especially if you have any computer background to speak of. I have posted a

Minitab Guide in Canvas. In order to use the software, you must be logged into the campus network. When off campus you may remote into one of the campus labs – I will post a video in Canvas showing you how to use the remote lab, and how to get into Minitab. Instructional videos for using Minitab (as well as Excel and TI graphing calculators) are also available online by searching YouTube.

### **Graded Course Activities**

In Canvas, click the weekly **module** to see a chronological listing of tasks and assignments. Click the **Grades** link to see current grades. Click on **View Course Calendar** (on the right side of your home screen) to see due dates at a glance.

### **Getting Into a Zoom Meeting:**

1. To access the meeting, click on the Zoom link in the menu at the left of the Canvas screen. Then join the meeting for that day. Or, if we are setting up a meeting outside of my scheduled office hours, I will email the meeting invitation to you.
2. To hear the session plug your headphones into the computer (preferred) or be sure your speakers are turned on and not on mute.
3. Click ALLOW for the microphone when accessing the meeting. To broadcast your audio click the mic button at the bottom left of the screen. Click it again to mute yourself. REMAIN MUTED unless you need to speak to me to ask a question (it is preferable to use the chat option to type questions).
4. Click ALLOW for the video when accessing the meeting.

### **Assessment:**

#### **Worksheets/Discussions (24% of your grade)**

As with all math courses, it is very important to DO problems yourself. It is one thing to follow what I am doing in my video lessons, and another altogether to be able to do it on your own. You must practice! In light of this, there will be problems from the textbook that you will be responsible to know how to do. Worksheets will provide additional practice for you and will be posted in Canvas. I will try to use examples from the worksheets in my recorded lectures (but will not do all the problems in the worksheets!). The worksheets that you will have to submit for grading will be clearly identified. Worksheet answer keys will be posted in Canvas after their due dates. Please feel free to contact me if you have any questions about how to answer the questions in the worksheets. From time to time I will ask you to answer some discussion questions in Canvas as well. Graded worksheet and discussion assignments will be worth 10 points each.

#### **Unit Exams (60% of your grade)**

There will be four unit exams, worth 15% each.

*Topics covered for the exams (dates subject to change):*

*Exam I: Chapters 1 – 2                      10/1*

*Exam II: Chapters 3 – 4                     10/22*

*Exam III: Chapters 5, 6, 7.1(?)        11/19*

*Exam IV: Chapters 7, 8, 2.6 (and 9?)    Due date 12/10*

*(You will have several days to complete Exam IV)*

#### **Final Exam (16% of your grade)**

The final exam will be **comprehensive** and will count as 16% of your final grade. The final is scheduled for Friday, December 18, from 10:15-12:15.

<b>Grading Scale:</b>	<b>A:</b> $\geq 92\%$	<b>A – :</b> $\geq 90\%$ but $< 92\%$
	<b>B + :</b> $\geq 88\%$ but $< 90\%$	<b>B – :</b> $\geq 80\%$ but $< 82\%$
	<b>B :</b> $\geq 82\%$ but $< 88\%$	
	<b>C + :</b> $\geq 78\%$ but $< 80\%$	<b>C – :</b> $\geq 70\%$ but $< 72\%$
	<b>C :</b> $\geq 72\%$ but $< 78\%$	
	<b>D + :</b> $\geq 68\%$ but $< 70\%$	<b>F :</b> $< 64\%$
	<b>D :</b> $\geq 64\%$ but $< 68\%$	

### Participation

Students are expected to participate in all online activities as listed on the course calendar. You should be accessing the course at least five times a week, and are responsible for checking announcements regularly.

### Build Rapport

If you find that you have any trouble keeping up with assignments or other aspects of the course, make sure you let your instructor know as early as possible. As you will find, building rapport and effective relationships are key to becoming an effective professional. Make sure that you are proactive in informing your instructor when difficulties arise during the semester so that we can help you find a solution.

**For Help:** 1) Ask questions as they arise. You can use the “Ask the Instructor” option in WebAssign, or just send me an email. 2) Drop in to one of my virtual office hours. (In Canvas, select Zoom in the menu, and join the meeting for that day and time. 3) Make use of the MathPad. 3) Tutoring services (through the TLC) are available for this course. More specifics for options 3 and 4 will be provided in Canvas when they become available.

### Understand When You May Drop This Course

It is the student’s responsibility to understand when they need to consider unenrolling from a course. Refer to the UWSP [Academic Calendar](#) for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons includes: (1) documented and significant change in work hours, leaving student unable to attend class, or (2) documented and severe physical/mental illness/injury to the student or student’s family.

### Incomplete Policy

Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if circumstances arise which are beyond the student’s control and the student is unable to complete the course AND the student is passing when the circumstances arise. All incomplete course assignments must be completed within 8 weeks.

### Inform Your Instructor of Any Accommodations Needed

If you have a documented disability and verification from the [Disability and Assistive Technology 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 Disability Services and meet with a Disability Services counselor to request special accommodation *before* classes start.

The Disability and Assistive Technology Center is located in 609 Albertson Hall and can be contacted by phone at (715) 346-3365 (Voice) (715) 346-3362 (TDD only) or via email at [datctr@uwsp.edu](mailto:datctr@uwsp.edu)

### Statement of Policy

UW-Stevens Point will modify academic program requirements as necessary to ensure that they do not discriminate against qualified applicants or students with disabilities. The modifications should not affect the substance of educational programs or compromise academic standards; nor should they intrude upon academic freedom.

Examinations or other procedures used for evaluating students' academic achievements may be adapted. The results of such evaluation must demonstrate the student's achievement in the academic activity, rather than describe his/her disability.

***If modifications are required due to a disability, please inform the instructor and contact the Disability and Assistive Technology Center in 609 ALB, or (715) 346-3365.***

### **Commit to Integrity**

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

### **UWSP Academic Honesty Policy & Procedures**

#### **Student Academic Disciplinary Procedures**

##### **UWSP 14.01 Statement of principles**

The board of regents, administrators, faculty, academic staff and students of the university of Wisconsin system believe that academic honesty and integrity are fundamental to the mission of higher education and of the university of Wisconsin system. The university has a responsibility to promote academic honesty and integrity and to develop procedures to deal effectively with instances of academic dishonesty. Students are responsible for the honest completion and representation of their work, for the appropriate citation of sources, and for respect of others' academic endeavors. Students who violate these standards must be confronted and must accept the consequences of their actions.

##### **UWSP 14.03 Academic misconduct subject to disciplinary action.**

- (1) Academic misconduct is an act in which a student:
  - (a) Seeks to claim credit for the work or efforts of another without authorization or citation;
  - (b) Uses unauthorized materials or fabricated data in any academic exercise;
  - (c) Forges or falsifies academic documents or records;
  - (d) Intentionally impedes or damages the academic work of others;
  - (e) Engages in conduct aimed at making false representation of a student's academic performance; or
  - (f) Assists other students in any of these acts.
  
- (2) Examples of academic misconduct include, but are not limited to: cheating on an examination; collaborating with others in work to be presented, contrary to the stated rules of the course; submitting a paper or assignment as one's own work when a part or all of the paper or assignment is the work of another; submitting a paper or assignment that contains ideas or research of others without appropriately identifying the sources of those ideas; stealing examinations or course materials; submitting, if contrary to the rules of a course, work previously presented in another course; tampering with the laboratory experiment or computer program of another student; knowingly and intentionally assisting another student in any of the above, including assistance in an arrangement whereby any work, classroom performance, examination or other activity is submitted or performed by a person other than the student under whose name the work is submitted or performed.

### **Religious Beliefs**

Relief from any academic requirement due to religious beliefs will be accommodated according to UWS 22.03, with notification within the first three weeks of class.

NOTE that the following information is relevant for anyone who will be **on campus**...

**Face Coverings:**

- At all UW-Stevens Point campus locations, the wearing of face coverings is mandatory in all buildings, including classrooms, laboratories, studios, and other instructional spaces. Any student with a condition that impacts their use of a face covering should contact the [Disability and Assistive Technology Center](#) to discuss accommodations in classes. Please note that unless everyone is wearing a face covering, in-person classes cannot take place. This is university policy and not up to the discretion of individual instructors. Failure to adhere to this requirement could result in formal withdrawal from the course.

**Other Guidance:**

- Please monitor your own health each day using [this screening tool](#). If you are not feeling well or believe you have been exposed to COVID-19, do not come to class; email your instructor and contact Student Health Service (715-346-4646).
  - As with any type of absence, students are expected to communicate their need to be absent and complete the course requirements as outlined in the syllabus.
- Maintain a minimum of 6 feet of physical distance from others whenever possible.
- Do not congregate in groups before or after class; stagger your arrival and departure from the classroom, lab, or meeting room.
- Wash your hands or use appropriate hand sanitizer regularly and avoid touching your face.
- Please maintain these same healthy practices outside the classroom.