## MATH 119-W01/M01 – Pre-Calculus Trigonometry
## Fall 2022 Syllabus

**Instructor:** Grant Kopitzke
**Office:** 087-B (Wausau Branch Main Building)
**Phone:** (715) 261-6272
**Email:** kopitzk@uwsp.edu

**Classroom:** Wausau 218, Marshfield 135 or by Zoom (Zoom link on Canvas)
**Class Meeting Time:** 10:00 – 10:50 MW

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**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 MTRF in my office (location listed above). If you are not attending classes physically at the Wausau campus, then please feel free to attend office hours virtually via Zoom. The link will be provided on the course Canvas page. Please feel free to drop in unannounced during office hours (but if you want to meet over Zoom, then a quick email beforehand would be appreciated).

**Textbook:** **Textbook:** *Precalculus: Mathematics for Calculus, 7th ed.*, by Stewart et. al. (ISBN: 978-1-305-07175-9)

**Calculators:** A graphing calculator is recommended for this course, but not required. Calculators with a Computer Algebra System (CAS) will not be allowed on exams. This includes the TI-89, TI-Voyage 200, TI Nspire CAS CX, and TI Nspire CAS CX II. Calculators that are permissible include the TI-83 and TI-84. The most cost-effective graphing calculator that I am aware of is the Casio fx-9750GIII (about $45). A scientific calculator will be "enough" for this course, so if you don't want to purchase a new calculator, you hopefully won't have to.

**Prerequisites:** Math 107 or a suitable placement test. This course prepares you for Math 225, if you did not place into Math 225.

**Course Description/Content:**
Math 119 introduces trigonometric functions from two approaches: using triangles with angles as the inputs for the functions and using circles with real numbers as the inputs for the functions. Basic properties, graphs, inverses and identities of trigonometric functions will be discussed. We will also cover various applications including solving trigonometric equations, solving triangles, and problems involving trigonometry from various fields outside of math.

This course serves as preparation for Math 225 if you did not place into Math 225. Prereq: 100 or Math 107, or suitable placement test score.

## 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.

## Attendance:
You will be expected to attend each class in person, if on the Wausau campus, or via Zoom if on the Marshfield campus. There is a room assigned to this class on the Marshfield campus, but students in the M01 section will only be required to be present in Marshfield 135 if there is an exam that day – you will, however, be expected to tune into class live via Zoom. Students in the W01 section will be expected to attend class in person at Wausau each day.  It is imperative to attend all classes and it is your responsibility to communicate with me if you will have to miss a class. You will be responsible for learning any material you might have missed.

## Homework:
Nearly every day after class a *minimal* list of homework problems (from the textbook) which you need to understand in order to do well in this course will be posted on Canvas. These homework problems will not be graded, but I will "spot check" (check for completion – not correctness) your homework notebook periodically throughout each unit. As such, you should attempt all these problems in an organized homework/notes notebook and bring any questions or comments for discussion at the start of the next class. These spot checks will count toward a minor portion of your overall grade in the course. If you have completed 90% of the homework problems in the unit immediately prior to a given exam, and I have confirmed that proportion in a homework spot check (prior to the exam), then you will receive 5 points of extra credit toward the corresponding unit exam.

## At-Home Quizzes:
There will be a quiz or two in the time period prior to each hour exam.  These will be closely related to concepts covered in the previous few days' homework and topics covered during class. Paying attention and doing assigned homework problems should prepare you well for these quizzes. The quizzes will be available on Canvas for one day. Once you begin the quiz, you'll have 1 hour to complete all the problems on scratch paper and upload your solutions to Canvas. You may use your textbook and notes for these quizzes, but you may not use the internet, apps, computer, work on these quizzes together, or seek help from others on these quizzes. If such misconduct is suspected on a quiz, you will receive a 0 on that quiz. Repeated misconduct will be reported to the school and disciplinary action may be taken. Canvas will only accept document uploads in the following file formats: JPG, PNG, DOC, DOCX, TEX or PDF files. If I cannot open the file, you'll receive a 0% on that quiz.

## Exams:
There will be two one-hour in-class exams and one two-hour final. The final exam will take place on Friday, December 16th from 8:00AM – 10:00AM in Wausau Room 218 and Marshfield Room 135. All 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 taking the class remotely, you will be required to drive to either the Marshfield or

Wausau campus to take exams in class at the scheduled time. Tentative exam dates are listed in the calendar at the end of the syllabus. The final exam will be comprehensive.

**Policy on Missed Exams:**
If a conflict prevents you from taking an exam, you should contact me well before the exam, if possible, and arrange for an early exam. 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 exam.
2. A documented school athletics event.
3. Jury duty or a court date, with documentation.
4. Military obligations, with documentation.

**Grading Policy:**
Your course grades will be computed as follows:

| Homework | 10% |
|---|---|
| Quizzes | 20% |
| Two Midterm Exams | 40% |
| Final Exam | 30% |

**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+ | B | B- | C+ | C | C- | D+ | D |

**Academic Misconduct:**
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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 | Dates | Content | |
|------|-------|---------|---|
| 1 | September 7 | Syllabus & 5.1 | |
| 2 | September 12 | 5.1 – Unit Circle | |
| | September 14 | 5.2 – Trig Fxns | |
| 3 | September 19 | 5.2 – Trig Fxns | |
| | September 21 | 5.3 – Trig Graphs | |
| 4 | September 26 | 5.3 – Trig Graphs | |
| | September 28 | 5.4 – Trig Graphs Cont. | |
| 5 | October 3 | 5.4 – Trig Graphs Cont. | |
| | October 5 | 5.5 – Inverse Trig Fxs | |
| 6 | October 10 | 5.5 – Inverse Trig Fxs | |
| | October 12 | Exam Review | |
| 7 | October 17 | Exam 1 | |
| | October 19 | 7.1 – Intro to Identities | |
| 8 | October 24 | 7.1 – Intro to Identities | |
| | October 26 | 7.2 – Sum Identities | |
| 9 | October 31 | 7.2 – Sum Identities | |
| | November 2 | 7.3 – Angle Identities | |
| 10 | November 7 | 7.3 – Angle Identities | |
| | November 9 | 7.4 – Basic Trig Eqns | |
| 11 | November 14 | 7.4 – Basic Trig Eqns | |
| | November 16 | 7.5 – More Trig Eqns | |
| 12 | November 21 | Exam Review | |
| | November 23 | Exam 2 | |
| 13 | November 28 | 6.1-6.3 – Triangle Trig | |
| | November 30 | 6.5 – Law of Sines | |
| 14 | December 5 | 6.5 – Law of Sines | |
| | December 7 | 6.6 – Law of Cosines | |
| 15 | December 12 | 6.6 – Law of Cosines | |
| | December 14 | Final Exam Review | |
| 16 | December 16 | Final Exam (8-10AM) | |