

**Central Washington University**

**Course title and number:**

Math 154-002, Precalculus II

**Course offered: Winter 2016**

**Credits:** 5 credit hours

**Instructor contact information:** Dr. Frank Underdown Jr.; Cell# 509-989-5533 (please, no call after 9:00 pm); email: Contact me through Canvas

**Course time & place:** MoTuWeThFr

11:00 – 11:50am Bouillon Hall 109

**Note: I will upload course materials to Canvas (Homework problems, solutions, etc. You will also be able to communicate with me via Canvas.**

**Office:** Black Hall room 225-34

**Office hours:** 12:00 – 1:00pm Mon-Fri

**Textbook:** Precalculus (Pkg w/ Mymathlab); Author: Sullivan; Pub: Pearson, ed. 9

**Course Content:** Trigonometry, conic sections, matrices, matrix applications. Maybe a review of complex numbers. Note I covered complex numbers with my Precalculus I students. So, this topic would depend on student needs.

**Equipment:** Scientific calculator and computer

**CATALOG DESCRIPTION:** A continuation of MATH 153 with emphasis on trigonometric functions, vectors, systems of equations, the complex numbers, and an introduction to analytic geometry. Formerly MATH1632.

**PREREQUISITE:** Prerequisites: Math 153 with a grade of C or higher; OR a score of 17 or higher on the Advanced Math Placement Test; OR a score of 46 or higher on the Compass College Algebra test.

**Measurable learning objectives, At the end of the course students should be able to:**

- Use geometry to work with symmetrical triangles
- Compute trigonometric functions of special angles and use them to solve for the unknown part(s) of right triangles.
- Use the Laws of Sines and Cosines to solve for the unknown parts of triangles.
- Solve trigonometric identities and equations.
- Graph trigonometric functions.
- Compute the values of inverse trigonometric functions.

- Use matrices to solve systems of equations.

This is the intended schedule for the class. Topics listed each day are the sections that are planned to be discussed in class on that day. It is not unusual to be two or three days ahead or behind this schedule, but we will cover the material in this order.

Week 1: Intro to Trigonometry and Angles

Week 2: Graphing Trigonometric Functions, **Quiz 1**

Week 3: Trigonometric Identities

Week 4: Solving Trigonometric Equations, **Quiz 2**

Week 5: Oblique Triangle Theorem

Week 6: Parabolas and Circles, **Quiz 3**

Week 7: Ellipses and Hyperbolas

Week 8: Matrix Operations, **Quiz 4**

Week 9: Matrix Applications

Week 10: **Final Exam** (project), **Quiz 5**

**Final Exam: Research Project in Mathematical Modeling. Yo will work in groups on this project. Power-point slide are due the week before finals week. Proposals are due the second week on class. Your group will do a presentation on your project during final's week.**

**Important dates:**

January 5, Classes Begin

January 18, Martian Luther King Day, no classes

March 11, Classes End

March 14-17, Final Exam week

March 22, Grades due

**ASSESSMENT METHODS AND GRADING SCALE**

*Your grade will be based on the following (A weighted average):*

*Homework 25%*

*Quizzes 50%*

*Final exam 25%*

The grading scale:

94-100/A/4.0	80-83/B-/2.7	67-69/D+/1.3
90-93/A-/3.7	77-79/C+/2.3	64-66/D/1.0
87-89/B+/3.3	74-76/C/2.0	60-63/D-/0.7
84-86/B/3.0	70-73/C-/1.7	below 60/F/0

**Attendance policy: Attendance is mandatory. Three or more unexcused absences will result in you failing the course. You will be responsible to do your homework and take exams on time.**

Only if you have a pre-approved absence, or documented family/medical emergency will you be allowed to make up the work.

### **ACADEMIC HONESTY**

As members of the Central Washington University learning community, students are not to engage in any form of academic dishonesty. Forms of academic dishonesty include, but are not limited to, plagiarism, cheating, fabrication, grade tampering, and misuse of computers and other electronic technology. Students who engage in academic dishonesty may receive an academic penalty or a disciplinary penalty or both. The disciplinary consequences of engaging in any form of academic dishonesty include reprimand, probation, suspension, and dismissal. A student who knowingly helps or attempts to help another individual to violate the University's policy on academic honesty also may be subject to academic as well as disciplinary penalties.

### **Quizzes/ EXAMS:**

- 1) Work QUIZZES by yourself. Do NOT collaborate on quizzes Any students who collaborate on the exam will receive a zero on the exam.
- 2) The Final Exam is a research project. You will work in groups on your project. Your final exam will be your presentation of your project during finals week.

### **STUDENTS REQUIRING SPECIAL ACCOMMODATION**

Central Washington University provides reasonable accommodations to students with disabilities. Students who need course accommodations because of a disability, have emergency medical information, or need special arrangements in case the building must be evacuated, should notify their instructors as soon as possible.