Precalculus II, MTH 130-002
Fall 2019
Aurora Downtown, DWNTN 315
MW 2pm-3:15pm

Instructor

Name: Steve Kifowit
Waubonsee Email: skifowit@waubonsee.edu
Phone Number: (630) 466-7900 Extension: 6698
Website: http://stevekifowit.com
Office Location: Sugar Grove, BDE 249

Office Hours:
Sugar Grove, BDE 249, MW 9:30am-10:30am, TTh 11:00am-12:00pm
Aurora Downtown, DWNTN 356, MW 12:00pm-12:30pm

Course Materials

Required Materials	Cost
Text: Trigonometry, 10th edition, 2018, Larson	About $168
Calculator: TI-83/84 Graphing Calculator	About $100

Disclaimer

This course syllabus and schedule are subject to change. Updates and other revisions to course policies will be communicated in class, on the class website, and/or via college (waubonsee.edu) email.

Course Description

This course in trigonometry of the plane concentrates on trigonometric, exponential, and logarithmic functions and their applications. Topics covered include the trigonometric functions, solution of right triangles, radian measure, fundamental identities, angular measure, graphs, logarithms, functions of composite angles, oblique triangles, trigonometric equations, inverse trigonometric functions, and complex numbers (including powers and roots).

Important Course Notes

This course does not fulfill the mathematics requirement for some Associate's Degree programs. Please check with your counselor.

Prerequisite: MTH 072 (Intermediate Algebra II) and MTH 075 (Elementary Geometry), both with C's or better, or placement by appropriate measures.
Recommended Corequisite: MTH 129 (Precalculus I)
Course Delivery Mode: Face-to-face
Course IAI Code: None
Credit Hours: 3.0

Course Objectives

Throughout this course, the student will learn to:
1.) define the trigonometric functions;
2.) solve right triangles given various parts;
3.) recall and apply fundamental identities;
4.) explain the relationship between radian measure and degree measure;
5.) graph all trigonometric functions;
6.) manipulate functions of composite angles;
7.) apply the law of sines to the solution of oblique triangles;
8.) apply the law of cosines to the solution of oblique triangles;
9.) solve elementary trigonometric equations;
10.) graph inverse trigonometric functions;
11.) solve algebraic manipulations on complex numbers;
12.) graph algebraic manipulations on complex numbers;
13.) apply DeMoivre's theorem in the solution of equations;
14.) explain logarithms of base 10 and natural logarithms as functions;
15.) explain exponential functions;
16.) graph logarithmic and exponential functions.

Course Outcomes

Upon successful completion of this course, the student will be able to:
1.) apply trigonometric functions to a variety of real-world applications;
2.) apply the trigonometric identities analytically in the solution of trigonometric equations; and
3.) explain the concepts of logarithmic and exponential functions.

College Learning Outcomes

This course contributes to the following college learning outcomes:

☑ Critical Thinking

Examine information in order to purpose or develop solutions or construct arguments.

☐ Communication

Use clear language to communicate meaning appropriate to various contexts and audiences.

☑ Quantitative Literacy

Make judgments or draw appropriate conclusions based on the quantitative analysis of data.

☐ Global Awareness

Describe the interconnectedness of issues, trends or systems using diverse perspectives.

☐ Information Literacy

Use technology to ethically research, evaluate or create information.

Course Grade Calculation

Total Points: 600 points

Grading Components	Score	Quantity	Subtotal	Percent
Tests	100	3	300 points	50%
Weekly Quizzes	15	10	150 points	25%
Comprehensive Final Exam	150	1	150 points	25%

Grading Scale

A --- 90% and above
B --- 80% - 89%
C --- 70% - 79%
D --- 60% - 69%
F --- below 60%

You may estimate your current grade at any time during the semester by computing the following percentage: 100% * (Total points accumulated) / (Total points possible). Please feel free to discuss your grade at any time during the semester. **Final percentages will be rounded to the nearest whole number.** Throughout the semester, grades will be posted online in Blackboard.

Attendance, late work, and make-up policy

Regular class attendance is an essential component of successful learning. Students are responsible for prompt attendance and participation in all class meetings. If you miss class, you will not be allowed to make up any tests, quizzes, or assignments that you may have missed (**but you may reschedule a test or quiz, or submit an assignment, in advance of a missed class period**). All material covered in class is the student's responsibility.

Withdrawal

Waubonsee Community College reserves the right to administratively withdraw students who are not actively attending. Students may withdraw themselves from this course up through November 25. Visit the Tuition Refunds page of the WCC website for more details.

Homework

Suggested homework problems will be assigned daily or weekly and posted to the class website. Most of these will not be collected for grading, but they should be considered mandatory. Test and quiz problems will be similar to suggested homework problems. Homework problems should prepare you for tests and quizzes.

Quizzes

Be prepared for an in-class, 15-point quiz near the end of each Wednesday's class period (unless a test is scheduled). No make-up quizzes will be given. Quizzes may have in-class and/or take-home portions. Your two (2) lowest quiz scores will be dropped at the end of the semester.

Tests

Test problems will be similar to class examples, textbook problems, and quiz problems. In addition to computational problems, tests may include multiple choice, true/false, short answer, and/or writing problems. You must show all work on all tests to receive full credit. **You must work individually on all tests.** No make-up tests will be given (unless scheduled prior to the test). At the end of the semester, your lowest test score will be replaced by two-thirds of your final exam score (if this helps you).

Final Exam

The final exam is comprehensive and will be worth 150 points toward your final grade. The final exam counts for 25% of your grade. Please take it seriously! The final exam is scheduled for our last class period.

Calculators

The TI-83/84 graphing calculator is required for this course. There are graphing calculator emulators available for smart phones and tablets--you may you these during class periods, but not during tests.

Phones/Tablets/Laptops

Electronic devices may be used for taking notes and computing during lectures, but they may not be used on in-class tests and quizzes. These devices must be silenced and put away during tests and quizzes. Students in special circumstances who require their phones to be readily available must discuss their situations with the instructor.

Important Institutional Policies

Diversity and Disability Statement

Accessibility is a value of our institution. We are committed to creating environments that are welcoming and that support all students' learning. If you experience barriers to your learning in this course please notify the instructor as soon as possible to discuss options. Students who experience barriers due to disability may contact the Access Center for Disability Resources to begin this conversation or establish accommodations.

Academic Integrity

Waubonsee Community College believes that all members of the community (students, faculty, staff, and administrators) have a responsibility to participate in learning with honesty, respect, and integrity. We must commit to engage in learning both in and out of the classroom, value each member in our learning community, demonstrate original thought, and help foster ethical, open, safe learning environments for all. For more information, please see the Waubonsee Community College Plagiarism Statement section in the Student Handbook.

Cheating/Plagiarism Policy

Waubonsee firmly upholds sound principles of academic integrity and responsibility. Plagiarism and cheating are serious infractions of academic integrity, and, as such, are considered breaches of the Code of Student Conduct. If a student has violated this policy, I will report the infraction to the Dean for Student Success and Retention and the student may fail the assignment or the course, depending on the severity or the number of infractions.

*** Please see the Student Handbook for other course policies and procedures.

Resource Links

The following are useful resources that are available to students at Waubonsee Community College:

- Access Center for Disability Resources
- Bursar
- Campus Police and Authority
- Career Development Center
- Counseling, Advising and Transfer Center
- Financial Aid and Scholarships
- Learning Assessment and Testing Services
- Library
- Online Support for Students
- Registration and Records
- TRIO/Student Support Services
- Tutoring Centers

Class Website

Course information, including tests, quizzes, answer keys and homework problems, can be found on the class website at http://stevekifowit.com/classes/m130.htm.

Grades will be posted in Blackboard. All other course information will be available on the class website.

Course Schedule

Week 1	Aug 19 & Aug 21	Course Information, Sections 1.1 & 1.2	Angle measure, Unit circle trig
Week 2	Aug 26 & Aug 28	Sections 1.2, 1.3, & 1.4	Unit circle trig, Right triangle trig, Reference angles
Week 3	Sep 4	Sections 1.5 & 1.6	Graphs of trig functions (**No class on Sep 2**)
Week 4	Sep 9 & Sep 11	Review, **Test 1**	Test 1 covers Sections 1.1-1.6
Week 5	Sep 16 & Sep 18	Sections 1.7 & 2.1	Inverse trig functions, Basic identities
Week 6	Sep 23 & Sep 25	Sections 2.2 & 2.3	Trig identities, Trig equations
Week 7	Sep 30 & Oct 2	Sections 2.4 & 2.5	Sum, difference, and multiple-angle identities
Week 8	Oct 7 & Oct 9	Review, **Test 2**	Test 2 covers Sections 1.7, 2.1-2.5
Week 9	Oct 14 & Oct 16	Sections 3.1 & 3.2	Laws of sines and cosines
Week 10	Oct 21 & Oct 23	Sections 4.1, 4.2, & 4.3	Intro to complex numbers
Week 11	Oct 28 & Oct 30	Sections 4.4 & 4.5	Complex numbers in trig form, DeMoivre's Theorem
Week 12	Nov 4 & Nov 6	Review, **Test 3**	Test 3 covers Sections 3.1, 3.2, 4.1-4.5
Week 13	Nov 11 & Nov 13	Sections 5.1 & 5.2	Exponential and log functions
Week 14	Nov 18 & Nov 20	Section 5.3	Properties of logs
Week 15	Nov 25 & Nov 27	Thanksgiving Break	**No Class**
Week 16	Dec 2 & Dec 4	Sections 5.4 & 5.5	Exponential and log equations and applications
Week 17	Dec 9 & Dec 11	Review, **Final Exam**	Final exam is comprehensive with emphasis on course objectives

November 25 is the last day for students to withdraw themselves.

Please check the current Waubonsee Academic Calendar for other important dates.

Waubonsee Community College Campus Information:

Sugar Grove Campus
Route 47 at Waubonsee Drive
Sugar Grove, IL 60554-9454
(630) 466-7900

Aurora Downtown Campus
18 South River Street
Aurora, IL 60506-4178
(630) 801-7900

Aurora Fox Valley Campus
2060 Ogden Avenue
Aurora, IL 60504-7222
(630) 585-7900

Plano Campus
100 Waubonsee Drive
Plano, IL 60545-2276
(630) 552-7900