MT136 TRIGONOMETRY
DONNELLY COLLEGE
SPRING 2018
MWF 11:00-11:50am
Room512
3credit hours

INSTRUCTOR INFORMATION:
Name: DHUHA SHAREEF
Office: ROOM 405
Office hours: TBD
Telephone: 913-621-7869
E-mail address: dshareef@donnelly.edu

Web site address:

COURSE DESCRIPTION:
This course covers trigonometric functions, their inverses, and their graphs. Topics include applications involving right triangles; trigonometric identities and equations; applications involving the laws of sines and cosines; products, quotients, powers and roots of complex numbers using trigonometric form.

PREREQUISITES:
C or better in MT103 Intermediate Algebra or placement into college courses

REQUIRED TEXTBOOK & SUPPLIES:

- Text –*Trigonometry*, 11th Ed. by Lial, Hornsby, & Schneider, and Daniels.
- MyMathLab access code, students for this semester have a free access to MyMathLab by visiting the following website at:
  (http://www.pearsonlaband mastering.com) use the following
  pass code to create your login account: **Shareef 75393,** students are required to self-enroll in associated MyMathLab course.
  MyMathLab is an external tool required in this course and is fully FERPA compliant.
  Pearson MyMathLab student support: https://support.pearson.com/getsupport/s/
  NOTE: an electronic version of the textbook is included with the Pearson access code. Hence a physical copy of the textbook is optional)
- Calculators are required (graphing calculators are available for $20 rental).

PHILOSOPHY OF GENERAL EDUCATION:
Donnelly College has consistently maintained a strong commitment to the liberal arts and sciences as a foundation for a complete education. The faculty strongly believes that the liberal arts and sciences provide the context through which students can engage with the larger questions about students' place in the world and their pursuit of truth. Therefore, the College's general education requirements are designed to ensure that liberal arts and sciences graduates develop a breadth of content knowledge and the skills and abilities which will enable them to become educated participants in a diverse global community.

DONNELLY COLLEGE LEARNING OUTCOMES:

1. **Communication Skills:** Students will communicate effectively in writing and speaking.
2. **Technology and Information Literacy Skills:** Students will demonstrate proficiency in information literacy skills.

3. **Symbolic Problem Solving:** Students will demonstrate competency in qualitative and quantitative problem solving.
4. **Analytical Thinking:** Students will employ reflective thinking to evaluate diverse ideas in the search for truth.
5. **Personal and Interpersonal Skills:** Students will develop an understanding across cultural differences locally, nationally, and internationally.
6. **Academic Inquiry:** Students will engage independently and effectively in lifelong learning.
7. **Values:** Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.

PROGRAM LEARNING OUTCOMES: Associate of Science (AS), Liberal Arts

In addition to the general education learning outcomes – communication skills, technology and information literacy skills, symbolic problem solving, analytical thinking, personal and interpersonal skills, academic inquiry, and values – upon successful completion of the Associate of Science in Liberal Arts degree, the graduate should be able to demonstrate:

1. Proficiency and creativity in written and verbal communication.
2. Effective use of current technology in support of academic work.
3. Proficient use of qualitative and quantitative methods in problem solving.
4. Critical and Analytic thinking across a range of disciplines.
5. A commitment to ethics and integrity in academic and professional relationships, within the community and the environment.
6. Use of the scientific method.

STUDENT LEARNING OUTCOMES:
1. Students will have the ability to find area of triangles using trigonometric formulas.
2. Students will have the ability to apply the trigonometric functions in real-world situations.
3. Students will have the ability to verify trigonometric identities.
4. Students will have the ability to solve variety of trigonometric equations
5. Students will have the ability to calculate products, quotients, powers, and roots of complex numbers in trigonometric form.
6. Students will have the ability to analyze the graphs of trigonometric, inverse trigonometric and polar functions

The shaded part will be assessed for this semester:

Donnelly College Learning Outcomes	**Program Learning Outcomes[1]**	**Student Learning Outcomes[2]**	**Application and Assessment[3]**
Students will communicate effectively in writing and speaking.	*Students will demonstrate Proficiency and creativity in written and verbal communication.*	*6.Students will have the ability to analyze the graphs of trigonometric, inverse trigonometric and polar functions*	Class average of 70% or more on problems 11,12,13 on the Final Exam.
Students will demonstrate proficiency in information literacy skills.	*Students will demonstrate Effective use of current technology in support of academic work*		

Students will demonstrate competency in qualitative and quantitative problem solving.	*Student will demonstrate Proficient use of qualitative and quantitative methods in problem solving.*	*1.Students will have the ability to find area of triangles using trigonometric formulas.* 2. *Students will have the ability to apply the trigonometric functions in real-world situations.* *3. Students will have the ability to Verify trigonometric identities.* *4. Students will have the ability to solve variety of trigonometric equations* *5. Students will have the ability to calculate products, quotients, powers, and roots of complex numbers in trigonometric form.*	Class average of 70% or more on problems 18,21on the Final Exam. Class average of 70% or more on problems8,10,16,17,19 on the Final Exam. Class average of 70% or more on problem 14,on the Final Exam. Class average of 70% or more on problem 22on the Final Exam.
Students will employ reflective thinking to evaluate diverse ideas in the search for truth.	*Student will demonstrate Critical and Analytic thinking across a range of disciplines.*	.	
Students will develop an understanding across cultural differences locally, nationally, and internationally.	*Student will demonstrate A commitment to ethics and integrity in academic and professional relationships, within the community and the environment*		
Students will engage independently and effectively in lifelong learning.	*6b. Use of the scientific method*		
Students will demonstrate moral and ethical behavior in keeping with our Catholic identity.	*A commitment to ethics and integrity in academic and professional relationships, within the community and the environment.*		

COURSE REQUIREMENTS*:*

Exams: There will be five chapter tests and one final comprehensive Exam. Tests will be given as is indicated in the class schedule. You may not use notes when testing. Basic calculators may be used.

***Make-up Exams*:** You may make up one test. In order to be allowed to make up a test you must call or e-mail me BEFORE the start of the test. You must have a valid reason and give it at this time ("I'm not ready" is NOT a valid reason.) If you do not provide prior notice, you must provide documentation (doctor's note, etc.) as to why you could not take the test. Unless there are extenuating circumstances, all tests must be made up within 48 hours of the scheduled test time. It is up to you to schedule the test.

- Since the points distribution are varies, the following rubric will be used to evaluate individual problems on the chapter tests and the final exam.

No credit	25% off credit	50% off credit	75% off credit	Full credit
Answer is incorrect and no work is shown or work shown is not labeled or not readable OR answer is correct but the directions were not followed	Work is shown (appropriately) work is neat and readable, answer is incorrect but work shown indicates the student had some idea of what was to be done	Work is shown (appropriately), work is neat and readable, answer is incorrect but work shown indicates minimal computational error(s)	Work is shown (appropriately), work is neat and readable, answer is correct but has not been simplified as much as possible or answer differs by the sign	Work is shown (appropriately), work is neat and readable, answer is correct and has been simplified as much as possible

Retests: There are no retests.

***MyMathLab homework will be due regularly*.** . It is strongly recommended to work on the homework related to a given section as soon as the section has been covered in class. The due dates of the online homework are in the attached schedule. You can also see any due assignments when you log into MyMathLab. Pay attention to the time when homework is due, as indicated in MyMathLab: homework will be considered late immediately after the listed time. The online homework is set up so that you have 3 attempts on your answer. For many problems, you will have access to help such as relevant links to the text, "Help me solve this"," View an example", "View a video". If you use the help to see a solution of a similar problem, make an honest effort to completely understand the method and own it , rather than mechanically mimicking the solution. Try as much as possible to NOT be dependent on this help, given that no such help will be available on exams.
Students are urged to work on the homework related to a section as soon as the section has been covered in class, even if the due date may be later. Daily work on the homework will make it easier to follow the subsequent lectures.
MyMathLab Quizzes and Tests: We will have a syllabus quiz, a review quiz, a, chapter review and pre/post /test for each chapter. All online quizzes and tests are timed, but they do not need to be completed in one setting: you can log out and back in. Problems need to be solved in order and you won't be able to go back to previously viewed problems. A quiz can be retaken as many times as possible before the due date, and the highest score will be recorded.

GRADING POLICY: Final grades assigned will be based on the percentage of total points earned and assigned as follows:

Percentage	Description
5%	MyMathLab quizzes
15%	MyMathLab homework
5%	MyMathLab Tests
50%	5 in class Exams
25%	Comprehensive final -in class- Exam

GRADING SCALE: Grades are awarded on the basis of the following percentage scale:

A ≥ 90	Letter Grade
$80 \leq$ B ≤ 89	$69 \leq$ D ≤ 60
$70 \leq$ C ≤ 79	F ≤ 59

ACADEMIC INTEGRITY: "Academic integrity is to be maintained at all times to insure genuine educational growth. Cheating and plagiarism in all forms, therefore, will be subject to disciplinary action. Serious infractions will be reviewed by an ad hoc committee, appointed by the appropriate dean. Appropriate sanctions will be imposed."

PLAGIARISM: Plagiarism – the appropriation or imitation of the language or ideas of another person and presenting them as one's original work – sometimes occurs through carelessness or ignorance. Students who are uncertain about proper documentation of sources should consult their instructors.

ACCOMMODATIONS: In compliance with the Americans with Disabilities Act, Donnelly College will make every attempt to provide equal access for persons with disabilities. Students in need of accommodations must request them in writing from the Vice President of Academic Affairs.

CIVILITY & DECORUM: As noted in its Code of Conduct, Donnelly College is committed to maintaining an overall atmosphere of civility and respect. Civility and decorum both inside and outside the classroom are fundamental foundations of the values at Donnelly College. Classroom discussions and interactions outside the classroom will at all times be focused on the learning process and should always be respectful of both students and faculty. In open discussions of ideas and issues, disagreements should focus on ideas and facts. Name calling and assaults (either in person or on-line) will not be tolerated. Should any problems occur, the instructor should be notified immediately. Those who do not comply with civility and decorum requirements may be subject to a grade reduction and/or other sanctions up to and including dismissal from Donnelly College.

ATTENDANCE POLICY: Students are expected to attend and participate in classes. Students should notify the instructor in advance to request that an absence be excused, and check if any arrangements are needed.

WITHDRAWAL FROM COURSES OR FROM SCHOOL: It is the responsibility of the student to withdraw from class. If a student decides to withdraw from a class, ideally, they should see an advisor and the

financial aid staff before taking the withdrawal form to the Registrar's office for processing. However, any verifiable contact (e-mail, fax, phone, mail, etc.) with authorized college personnel expressing the student's intent to withdraw from a class will be honored.

If students withdraw before they have earned their financial aid, they will owe Donnelly College a debt for the unearned portion of the financial aid as well as for any unpaid balances (subject to the College's refund policy). Not attending class is not a withdrawal from class.

Donnelly College reserves the right to withdraw a student from class (es) if the student does not meet their financial obligations, including two missing or incomplete payments, or loss of financial aid. Faculty may initiate an administrative withdrawal on the basis of non-attendance. In extreme circumstances (i.e. a disciplinary problem), the Vice President of Academic Affairs may initiate an administrative withdrawal. The student remains responsible for the tuition owed in this instance. The deadlines for withdrawing from classes are as follows:

14 to 16 weeks	**3 weeks before the end of the class**
6 to 8 weeks	7 weekdays before the end of class
4 to 5 weeks	4 weekdays before the end of class
Less than 4 weeks	Withdrawals are not allowed

Withdrawal deadline dates will be published in the academic calendar.

TENTATIVE COURSE CALENDAR:
The schedule is subject to change based on the progress or needs of the class.

MT 136A SP18 TRIGONOMETRY
Tentative Schedule
This schedule is subject to change based on the progress or needs of the class.

Date/Week	Day	**Section/Topic**	MyMathLab Assignments
JAN17th th-W 1	W	Syllabus-Angles-1.1Basic Terminology, Degree Measure, Standard Position, Conterminal Angles	1.1 due by 11:59 pm Thursday January 18th
19th	F	1.2 angles relations	1.2due by11:59 pm Sunday January 21st
22nd -W2	M	1.3Trigonometric funs.	1.3 due by11:59 pm Tuesday January 23rd
24th	W	Using definition of trigonometric funs 1.4	1.4 & Review HomeworkCh.1 Pretest Ch.1, due by11:59 pm Thursday January 25th
26th	F	Ch.2, 2.1, trig funs of acute angles	2.1 due by Sunday Jan. 28th 11:59 pm
Jan29th W3	M	2.2 trig funs of non-acute angles	2.2 due by Tuesday Jan. 30th 11:59 pm
31st	W	2.3 finding trig funs val. using calculator	2.3 due by Thursday Feb. 1st 11:59 pm
Feb2nd	F	2.4 Solution of the Right triangles	2.4 due by Monday Feb 4th 11:59 pm
			Review, pretest & quiz all due by Tuesday Feb 6th 11:59 pm
5th -W4	M	3.1 Radian major and the unite circle	Feb. 11th at 11:59
7th	W	Test ch1&Ch.2	
Feb 9th	F	3.2 Applications of Radian major	Feb. 11th at 11:59
12th -W5	M	3.3-Unit circle and circular funs	Feb. 15th at 11:59
Feb 14th	W	3.4 liner and angular speed	3.4, Quiz, and posttest all due by Feb. 15th at 11:59

Date/Weeks	Day	**Section/Topic**	Homework
2/16	F	Ch 4 graph of circular funs 4.1graphs of the sine and cosine funs	4.1 due by Tuesday Feb.20th 11:59pm
2/19 -W6	M	4.2 Translations of the graphs of the sine and cosine functions.	4.2 due by11:59pm Feb 22nd
2/21	W	4.3Graphs of the Tangent and Cotangent functions.	4.3due by11:59pm Feb. 27th
2/23	F	4.4Graphs of secant and co secant funs	4.4due by11:59pm Tue. March 1st
2/26 W-7	M	4.5 Harmonic motion	4.5due by11:59pm Tue. March 1st
28th	W		Ch4Rev.HW, pretest and review quiz due by11:59pm Sat. March 4th
March 2nd	F	Ch. 5, 5.1 Trigonometric identities	5.1due by 11:59pm Sunday. March 18th
3/5- W 8	M	Test Ch3&4 (Midterm Exam)	
3/7	W	5.2 verifying trigs identities	5.2 due by 11:59pm Sunday. March18th
3/9	F	5.3 sum and different identities for cosines	5.3 due by 11:59pm Tuesday. March20th
3/12-3/17		Spring Break	No School
3/19- W9	M	5.4 sum and different identities of sine and tangent	5.4 due by 11:59pm Sunday. March25th
3/21	W	5.5 double angle identities	5.5 due by 11:59pm Sunday. March25th
3/23	F	5.6 half-angle identities	5.6 due by 11:59pm Sat. March 28th
3/26- W10	M	Ch. 6, 6.1 inverse circular funs	Rev.HW, Quiz,Post testch 5 due by 11:59pm Sat. Apr.8th
3/28	W	6.2 Trig. Equations I Discussion	6.1,6.2 due by 11:59pm Sat. Apr 8th
March 30-	F	Easter Break	No Classes

Date/Weeks	Day	**Section/Topic**	Homework
4/2- W 11	M	Test Ch.5	
4/4	W	6.3 Trig. Equation II	6.3due by 11:59pm Sat. Apr 11th
4/6	F	6.4 inverse trig funs	6.4 due by 11:59pm Sat. Apr 15th
			Ch6 review, Quiz, Post- test, due by 11:59pm Sat. Apr 15th
4/9- W 12	M	Ch.7- 7.1 Oblique Triangle and the law of Sines	7.1 due by 11:59pm Thursday Apr. 19th
4/11	W	7.2 The Ambiguous case of the law of Sines	7.2 due by 11:59pm Saturday Apr.22nd
4/13	F	7.3 The law of Cosines	7.3 due by 11:59pm Saturday Apr.22nd
4/16- W 13	M	Chapter 6 Exam	
4/18	W	7.4 Introduction to Vectors / Last day to withdraw from class	7.4 due by 11:59pm Wednesday Apr.25th
4/20	F	7.5Algebraically defined vectors and the dot product	7.5 due by 11:59pm Friday Apr.27th
4/23- W 14	M	CH8/ 8.1Complex Numbers	4/24 ,11:59pm
4/25	W	8.2Polar form of Complex Numbers	4/29, 11:59pm
4/27	F	8.3 The Product & Quotient Rules Theorems	5/1,11:59pm
4/30 -W15	M	Review for the Comprehensive Finals	5/4 Cumulative Review 1-8 due by 11:59pm
5/2	W	Review for the Comprehensive Finals	
5/4	F	Review for the Comprehensive Finals	
5/7-5/9-W16		Final week	
5/9	W	**Comprehensive Final Test in class**	**10:00-11:40 am**