TRIGONOMETRY, Math 1613 Syllabus Fall 2017			
Instructor:	Nishad Devendra Mandlik		
Office:	MSCS 408	Office phone:	744-2282
Office hours:	T 10:00 a.m. - 12:00 noon W 9:00-10:00 a.m. at MLSC (fifth floor of OSU Library) Other times are available by appointment.		
E-mail:	nishad.mandlik@okstate.edu Please identify your course and section in the subject line of your e-mail. For instance, "1613 student, TR 10:30".		

Course Description

Trigonometric functions, solution of triangles and applications to physical sciences. Note that combined credit toward a degree for MATH 1513, MATH 1613 and MATH 1715 is limited to six hours.

Prerequisites

The required prerequisites are an ALEKSGOAL minimum score of 60 or MATH 1513 with a minimum grade of C.

Course Goals and Objectives

Demonstrate the skills and competency necessary when working with trigonometric functions for further study in mathematics or sciences. This includes reading, understanding, and applying trigonometry in a variety of situations.

- Solve triangles using trigonometric functions
- Understand radian measure and the unit circle
- Solve application problems involving trigonometry
- Calculate values of the six trigonometric functions
- Sketch graphs of trigonometric functions with transformations
- Verify trigonometric identities
- Solve trigonometric equations

Textbook

WebAssign contains the e-book *Algebra and Trigonometry*, Fourth Edition, by Stewart, Redline, and Watson. You do NOT need to purchase the (physical) textbook separately.

WebAssign Access (Required), Registration, Tech Support, and Self-Help Videos

Note: If you have previously taken this course here at OSU (and used exactly the same textbook), you can use your previous WebAssign account without purchasing a new access code.

You should sign up for WebAssign right away using the same first/last names listed on your official OSU enrollment. For the username, it is recommended that you use your O-Key username. The institution is okstate. There is a 14-day grace period to enter the access code, *starting with the first day of the semester*. Go to http://www.webassign.net and self-enroll.

To enroll in WebAssign, you need three things:

- WebAssign **Student Access Code** (purchased separately)
- Institution: **okstate**
- **Class Key** (see table to find the Class Key matching your section)

CRN Number	Meeting Days/Time	Instructor	WebAssign Class Key
62502	TR 12:30 p.m.	Nishad Mandlik	okstate 7909 2697
63503	TR 02:00 p.m.	Nishad Mandlik	okstate 8551 7794

If you need help getting started using WebAssign, there are videos available here: https://www.cengage.com/services/product/ewa/general/student

For *WebAssign Technical Support*, go to: http://support.cengage.com/victoriaweb/primarypage or call toll free, 800-955-8275.

Other Required/Optional Material

- **Lecture notes**: These are available in the online classroom (Brightspace by D2L). Go to: online.okstate.edu and log in using your O-Key username and password. Find this course, then go to the "Contents" tab.
- A **calculator** (either graphing or non-graphing) is required for this course. It must be able to calculate trigonometric functions (sine, cosine, tangent) in both degrees and radians, as well as inverse trigonometric functions. ***Only one calculator may be used*** *on exams or other assignments*. The OSU Mathematics Department has a limited number of graphing calculators for students to use during the semester on a first-come, first-served basis. These calculators are **not allowed**: cell phone calculators, laptops, handheld computers, calculators with wifi, or built-in computer algebra systems. Some of the prohibited calculators include: TI-89, TI- 92, TI-Nspire CAS. We will follow the same calculator usage policy as the ACT test. See the list of prohibited calculators at: http://www.act.org/content/act/en/products-and-services/the-act/taking-the-test/calculator-policy.html . Please check with your instructor to determine whether your calculator is allowed.

WebAssign Homework

WebAssign is a website that will be used for online homework. It is due at 11:59 p.m., usually on a day your class meets. Each problem may be submitted up to 5 times. At the end of the semester, the total of all WebAssign homework points will be *scaled* to **100 points** (your *percentage correct* × 100), which is the maximum number of points that can be earned for the semester.

For questions about a homework problem, you can use the "Ask Your Teacher" feature in WebAssign, or you may bring questions to class to ask the instructor. Please **keep a copy of your written work**, since it is helpful in locating errors. Any correct answer submitted before the due date will receive full points. **Late homework will be accepted with a 50% penalty**, *up to 5 days* after the due date. *Request an extension* by clicking the button in WebAssign. The extension will be granted automatically. Each correct answer submitted *after* the due date, but by the end of the 5th day, will receive the 50% penalty.

Written Homework (100 points)

Hand-written homework assignments will be worth 20 points each. The ONE lowest grade from written homework will be dropped at the end of the semester. After dropping the one lowest score, the total will be ***scaled* to 100 points** (your percentage × 100).

Written homework will be turned in at the beginning of class on the day the assignment is due. These assignments will generally be announced a week in advance. You **must show work** on every problem. *It is a violation of academic integrity to turn in work that is exactly the same as, or very*

similar to, the work of another student, tutor, or website. Academic integrity violations may be subject to sanctions according to university policy. **Late homework will not be accepted.**

Group Work and Quiz Grade (100 points)

Group work assignments and quizzes will be worth 20 points each and will be given approximately once per week. The two lowest scores from this grade category will be dropped at the end of the semester. After dropping the two lowest scores, the total will be ***scaled* to 100 points** (your percentage × 100).

There is ***no make-up*** on group work assignments or quizzes. *Group work is not announced in advance.*

Group work policies:

- Group members **must be present for the entire class period**, and must **participate equally** in order to share the full credit on the assignment.
- Groups should consist of **two people** (three with special permission from instructor); groups can change throughout the semester.
- Groups **may use their own notes**, but not the notes from students outside the group.
- **Working with other groups is NOT allowed**.
- Group members are **not allowed to "split" the work**; each member must contribute to every problem.
- Groups **may ask the instructor for some guidance**, but should not expect a full explanation.
- Groups must **show work** on every problem.
- **One paper will be submitted** for the entire group.
- **Calculators are allowed**, but no other electronic devices (cell phones, tablets, laptops, etc.) should be used.
- Instances of **academic dishonesty** may be subject to sanctions according to university policy.

Exams

There will be three 100 point exams and a 200 point comprehensive final exam on these dates:

Exam 1: Thursday, Sep. 21	Exam 2: Thursday, Oct. 26
Exam 3: Thursday, Nov. 16	Final Exam: Friday, Dec. 15, 12:00-1:50 p.m. in CLBN 102

Make-Up Exams

Make-up exams will be given only in extreme circumstances, **if documentation for the absence can be provided and is verifiable**. Valid reasons for make-up exams include:

- University activities (e.g. field trips, research presentations, athletic teams, etc.)
- Military obligation, jury duty or other mandatory court appearance
- Serious illness or injury in student or immediate family (parent, sibling, spouse, son, daughter)

If you believe you need to take a make-up exam, first contact your instructor to explain the reason for missing the exam. Then, contact the **course coordinator, Lee Ann Brown**, by e-mail at brownl@okstate.edu . If possible, you should contact her **well in advance of the exam (at least 3 days)** to ask for permission to take a makeup exam and to inform her of the reason for needing to miss the exam. In circumstances where notification cannot be given prior to the exam, **arrangements must be made within 24 hours of the missed exam** and the makeup exam must be taken **within one week** of the scheduled exam.

Exam Replacement Opportunity

You are allowed to replace your ONE lowest score from exam 1, 2, or 3 with your *percentage* score on the final exam, *after* a 20-point deduction. For instance, if your first three exam scores are 85, 78, and 63, and your final exam score is 160 out of 200 (or 80%), then you can replace the third exam score (63) with a score of 70 (calculated as follows: 160 – 20 = 140; 140/200 = 70%). If this calculation results in a score *lower* than your lowest exam score on the first three exams, then there will be no exam replacement. The final exam is mandatory and no other exam scores may be used to replace it.

Course Grading

Course grades will be determined according to the following distribution.

WebAssign Homework (scaled)	100 points
Written Homework (scaled)	100 points
Group Work/Quiz Grade (scaled)	100 points
Exams	500 points
TOTAL	800 points

A: 90% or higher	B: 80-89.5%	C: 70-79.5%	D: 60-69.5%	F: 59% or lower
720-800 pts.	640-719 pts.	560-639 pts.	480-559 pts.	0-479 pts.

MLSC

There is free tutoring available in the Math Learning Success Center (MLSC), located on the ***fifth floor of the OSU Library***. The MLSC is open during the following hours:

	Tutoring and Computer Lab Hours
Monday-Thursday:	9:00 a.m. to 9:00 p.m.
Friday:	9:00 a.m. to 5:00 p.m.
Sunday:	1:00 p.m. to 9:00 p.m.

MLSC Weekly Trig Reviews: Sundays, 7:00 p.m.

For more information on the MLSC, visit their website: www.math.okstate.edu/mlsc

Attendance, Courtesy, and Electronics Usage

Common courtesy is expected. Here are a few things to remember:

- Be **on time** and be **attentive, remain in the room** the entire time (unless you are ill), and show courtesy to other students by allowing them to hear the instructor.
- **Only one calculator** may be used on quizzes, exams, or other assignments. Calculators must be approved (see graphing calculator requirements). **No other electronic devices** (cell phones, laptops, tablets) are allowed. Use of more than one calculator, or use of another electronic device, may be considered an act of academic dishonesty/misconduct and may result in a grade of 0 on the exam/quiz, or a grade of F for the course.
- **Please do not use a cell phone** or other electronic device during class time.

Academic Integrity

101 Whitehurst/405-744-5627, http://academicintegrity.okstate.edu

OSU is committed to maintaining the highest standards of integrity and ethical conduct. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions,

cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and altering academic records) will result in an official academic sanction. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge.

Office of Student Disability Services

315 Student Union/405-744-7116, http://sds.okstate.edu/

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of Student Disability Services. **Please advise the instructor of your disability as soon as possible**, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process to verify the existence of a qualified disability and identify reasonable accommodations.

Incomplete Grade

Please refer to: https://registrar.okstate.edu/FAQ-Incomplete-Grade-Students

Syllabus Attachment

You are individually responsible for meeting university deadlines and for following university procedures. The general university syllabus attachment, containing much information of this nature, can be found on the Academic Affairs' web site (http://academicaffairs.okstate.edu and choose Faculty and Staff Resources, then the Syllabus attachment for the appropriate semester).

Additional Resources

OSU Police	744-6523	OSU Student Counseling Center	744-5472
Stillwater Police	372-4171	OSU Counseling Psychology Clinic	744-6980
		OSU Psychological Services Center	744-5975

Equal Opportunity/Sexual Misconduct/Sexual Discriminiation

408 Whitehurst/405-744-9153, https://1is2many.okstate.edu/

Final Note

Any changes in this syllabus will be communicated to you in class by the instructor.

Wk	Tuesday	Thursday	Important Dates
1	**Aug. 22**	**Aug. 24**	
	Syllabus, 5.1 Angles	5.1 Angles	
2	**Aug. 29**	**Aug. 31**	
	5.2 Rt. Triangle Def.	5.2 Rt. Triangle Def. *5.1	*8/28: Nonrestrictive drop/add deadline; 9/1: Restrictive drop/add deadline*
3	**Sep. 5**	**Sep. 7**	
	5.3 Trig Functions of Angles	5.3 Trig Fncs of Angles *5.2	*9/4: University holiday*
4	**Sep. 12**	**Sep. 14**	
	6.1/6.2 Unit Circle	6.1/6.2 Unit Circle *5.3	
5	**Sep. 19**	**Sep. 21**	
	Exam 1 Review *6.1/6.2 *Ex1 Rev due 9/20/17	**Exam 1 (50 minutes)** *After Ex1, start 6.3A*	
6	**Sep. 26**	**Sep. 28**	
	6.3A, B Sine, Cosine Graphs	6.3B Sine, Cosine Graphs, 6.4 Tangent Graphs *6.3A	
7	**Oct. 3**	**Oct. 5**	
	6.4 Tangent Graphs, 5.4/6.5 Inverses *6.3B	5.4/6.5 Inverses *6.4	
8	**Oct. 10**	**Oct. 12**	
	5.5 Law of Sines	5.5, 5.6 Law of Cosines *5.4/6.5	
9	**Oct. 17**	**Oct. 19**	
	5.6, R1 Basic Algebra *5.5	R1 Basic Algebra *5.6	*10/20: Fall Break (no classes)*
10	**Oct. 24**	**Oct. 26**	
	Review for Exam 2 *R1 *Ex2 Rev due 10/25/17	**Exam 2 (50 minutes)** *After Ex2, start 7.1*	
11	**Oct. 30**	**Nov. 2**	
	7.1 Trig Identities	7.2 Sum/Difference *7.1	
12	**Nov. 7**	**Nov. 9**	
	7.3 Double/Half Angles *7.2	7.4 Equations I *7.3	*11/10: W drop/withdraw deadline*
13	**Nov. 14**	**Nov. 16**	
	Exam 3 Review *7.4 *Ex3 Rev due 11/15/17	**Exam 3 (50 minutes)** *After Ex3, start 7.5*	
14	**Nov. 21**	**Nov. 23**	
	7.5 Equations II	**UNIVERSITY HOLIDAY**	*10/22-10/24: University holiday*
15	**Nov. 28**	**Nov. 30**	
	4.1/4.2 Exponentials *7.5 4.3 Logarithms	4.4 Laws of Logarithms 4.5 Exp/Log Equations *4.1/4.2	*12/1: W/F withdraw deadline*
16	**Dec. 5**	**Dec. 7**	
	4.5, 4.6 Modeling *4.3, 4.4	Review for Final *4.5, 4.6	*WebAssign Final Exam review is optional (no points)*

Final Exam: Friday, December 15, 12:00-1:50 p.m. (*see syllabus for room number*)