Mathematics 1613 – Trigonometry, Section 17
Fall 2014
MWF 11:30 am – 12:20 pm in Physical Science Building PS 355

Instructor:	Oleksandr Tovstolis
Course Coordinator:	Lee Ann Brown
Office:	MSCS 519 D
Office Phone:	405-744-1805
E-mail:	*atovstolis@math.okstate.edu* (Please put "1613 Student MWF [11:30]" in the Subject line of your e-mail messages)
Office Hours:	Monday 5:00 pm – 7:00 pm in MLSC (Main Library, 5th floor) TR3,
	Wednesday 4:00 pm – 5:00 pm in MSCS 519 D, and by appointment (Please arrange appointment time by e-mail)
Help Sessions:	Tuesday, Wednesday 6:00 pm – 8:00 pm, Room: Agriculture Hall AGH 275
Course's Website:	*http://www.math.okstate.edu/~atovstolis/trigonometry.htm*
Online Classroom (D2L):	*http://oc.okstate.edu*

Course Description: This course should familiarize students with main concepts and techniques of trigonometry: Angles, Triangles, Trigonometric Functions and their Inverses, Polar Coordinates, etc. The course also includes many useful trigonometric formulas, solutions of triangles, and applications to physical sciences. The prerequisite test required is ALEKSGOAL with a minimum score of 50, or previous credit in MATH 1513 with a minimum grade of C. No credit will be earned for those with prior credit in MATH 1715 (Precalculus) or any course for which 1613 is a prerequisite.

Textbook / WebAssign Access:	*Algebra and Trigonometry w/Access*, Third Edition, by Stewart, Redline, and Watson, OR *WebAssign Access Code (*Note: The textbook is loose-leaf and cannot be sold back to the bookstore. You may choose to buy only the WebAssign access code, either through the student bookstore or directly from WebAssign when you register.)*

You will be assigned on-line homework and written homework. To complete your on-line homework assignments, you should sign up for WebAssign right away using the first/last names used on your official OSU enrollment. The institution is *okstate*. There is a 14-day grace period to enter the access code to continue doing homework. Go to http://www.webassign.net and self-enroll.

- You will need a *class key* that corresponds to this section of Trigonometry. **Your class key is:**

okstate 8325 9335

- You will also need the *student access code* that comes with your textbook or purchased alone.

Other Required Material and Optional Material

- A **graphing calculator** is highly recommended for this course, but a (non-graphing) scientific calculator may be used. It must be able to calculate trigonometric functions (sine, cosine, tangent) in both degrees and radians, as well as inverse trigonometric functions. *Cell phone calculators, laptops, handheld computers, and calculators with built-in computer algebra systems (TI-89, TI-Nspire CAS, etc.) are not allowed.*

Only one calculator may be used on exams or other assignments. Please check with your instructor to determine whether your calculator is allowed. *Note:* The OSU Mathematics Department has a limited number of graphing calculators for students.

- **Lecture notes (optional):** These are available in the online classroom (D2L). Go to: https://oc.okstate.edu/ and log in using your O-Key username and password. The notes will be located under the "Contents" tab.
- **Colored pens or pencils** (optional; these may be helpful when graphing)

Help Sessions. In addition to the regular classes, I provide Help Sessions. They are **free of charge**. Several interesting examples, strategies of solving standard problems more efficiently, as well as advanced problems and approaches will be discussed in these sessions. You may also ask *any questions* and bring *any problems* to be considered there. Attendance of these sessions is non-mandatory but **highly recommended** for anybody. As students evaluations from my other students show, the help sessions are extremely useful. **The time is: Tuesday and Wednesday, 6:00 – 8:00 pm. The room is AGH 275 (Agriculture Hall).** You may come later and leave earlier; this activity is solely to help you.

Tutoring: There is free tutoring available in the Math Learning Success Center (MLSC), located on the fifth floor of the OSU Library. Your instructor will be holding some office hours there as well.

Exams: There will be three 100 point exams and a 200 point comprehensive final exam. The dates are:
- Exam 1 (Wednesday, 09/17/2014)
- Exam 2 (Wednesday, 10/15/2014)
- Exam 3 (Wednesday, 11/19/2014)
- Common Final Exam (Monday, 12/08/2014, 4:00 pm – 5:50 pm in MSCS 101)

Before each exam, we will have a special review session that should help to prepare for the exam. **A Help Session before each midterm exam will be an extended review session.**

The full OSU Academic Calendar could be found at
http://registrar.okstate.edu/index.php?option=com_content&view=article&id=314&Itemid=3, or at
http://registrar.okstate.edu/images/EG/fall2014enrollmentguide_web.pdf (Fall 2014 Enrollment Guide)

Group Work and Quiz Grade (100 points): About once a week, a group work assignment or quiz will be given during class. These are usually *unannounced* and **you must be present for the whole class period** to participate. The total for all these will be *scaled* **to 100 points** (your percentage × 100). There will be *no make-up* on group work assignments or quizzes. You will be allowed to drop your *two* lowest scores from this grade category.

Written Homework (50 points): *Hand-written* homework assignments will be worth 10 points each and will be turned in during class. The lowest *two* grades from written homework will be dropped at the end of the semester, then the total of all written homework points will be *scaled* **to 50 points** (your percentage × 50). *Written homework will only be accepted after the due date if the reason for your absence meets the criteria for a make-up exam (see "Make-Up Exams," documentation required). Late homework will not be accepted after the graded homework has been returned to the rest of the class.*

WebAssign Homework: The address of the WebAssign website is https://www.webassign.net/login.html. Homework is typically due on a day your class meets, at 11:59 p.m. The due dates are listed in WebAssign. You can submit each problem 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 × 100). The maximum number of points that can be earned for the semester is 100 points. Homework will not be available after the due date. If you have a question about a problem, please write it down and bring it to class. Please **keep a copy of your written work.** Setting up the **WebAssign Notification system** is highly recommended. It should prevent situations when you started your homework too late to complete it before the due date. Anyway, always do the assignments in advance.

Attendance. Attendance of our classes is mandatory. It is one of the university's requirements. An attendance list will be provided for signing each time. You are responsible for all the material covered in class and all

announcements. You must be present for the **entire class period, awake and attentive, without distracting behavior (coming and going from class, talking, wearing headphones, using an electronic device, etc.)** to be counted as present. I expect not only physical presence in class but mental presence. This means, you are expected to do your best to understand the material presented and actively participate in class discussions.

There will be 50 points available for class attendance. You get **three "free"** absences. For every absence *after* the first three absences, 3 points will be deducted from the 50 point total.

Questions: All your questions in class and on the help sessions are highly appreciated. Remember that *misunderstanding tends to be collected*. If you do not understand something in class, there are likely to be many other students who do not understand it either. So, help those students out by asking the question! Your questions also help me to guess what was unclear, and therefore requires more explanation, a different approach, or more illustrations, examples, etc.

Sometimes, I ask questions. It is important to keep a live discussion and answer my questions. Even if your answer is wrong, it should teach you. Remember, the purpose of our course is to teach you, to help you in developing knowledge and skills required for solving real-world problems. When people learn something, they often make mistakes, and learn from these mistakes.

Course Evaluation: Course grades will be determined according to the following distribution.

Group Work/Quiz Grade (scaled)	100 points
Written Homework (scaled)	50 points
WebAssign Homework (scaled)	100 points
Attendance	50 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.

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 (documentation required) 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 a make-up exam may be applicable, please notify the **course coordinator, Lee Ann Brown,** by e-mail at brownl@okstate.edu prior to the missed exam (if possible), informing her of the reason for missing the exam. Notification *after* the exam will only be accepted in an emergency situation. If you know several days in advance that you will miss an exam (jury duty, athletics, etc.), it may be possible to take an *early* exam. You must provide **appropriate documentation** for the absence.

Attendance, Courtesy, and Electronics Usage: Regular class attendance is expected. 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).
- Show courtesy to those around you by **not talking** to classmates while the instructor is talking.
- **Only one calculator** may be used on quizzes, exams, or other assignments. **No other electronic devices** (cell phones, laptops, tablets) are allowed. Use of more than one calculator, or use of another electronic device will be considered an act of academic dishonesty/misconduct.
- Please **do not use a cell phone or other electronic device during class time.**

Incomplete Grade: The grade of "I" is given to students who satisfactorily completed the majority of the course work and whose work averages "D" or better, but who have been unavoidably prevented from completing the remaining work of the course. The conditions, including appropriate time limits, for the removal of the "I" are indicated on the official class roll by the instructor. A condition that the student must repeat the course in order to remove the "I" is not permitted. The maximum time allowed for a student to remove an "I" is one calendar year.

Academic Dishonesty/Misconduct: Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. 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 fraudulently altering academic records) will result in your being sanctioned. 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. Contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627. Go to academicintegrity.okstate.edu for a short video on OSU's academic integrity policy and additional information.

Office of Student Disability Services: (015 University Health Services) - 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 during which the existence of a qualified disability is verified and reasonable accommodations are identified. Call 405-744-7116 or go to www.okstate.edu/ucs/stdis/.

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).

Standard Operating Procedure: All students must complete a minimum of two hours of work per hour of class outside attending lectures. This work is to consist of reading all sections of the textbook covered in class and performing all assigned homework problems and enough additional problems to make sure that you understand the material. Your outside class work is crucial to success.

A Useful Advice: If you feel unsure, unconfident, or just uncomfortable with some topic(s), please do not ignore it. This means you did not understand some important idea(s). Feel free to come to my office hours, help sessions, or find me at another time to clarify everything. Do it as soon as possible. As my experience shows, there are no subjects too difficult; there is an inappropriate attitude causing problems. Please do not postpone filling the gaps until the pre-finals week.

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

Math 1613 – Trigonometry Course Schedule (Section 17; Fall 2014)

Class	Topic No.	Topic	Date	WebAssign HW*	D	W#
1.	6.1	Syllabus, Introduction	08/18/14		M	1
2.	6.1	Angles	08/20/14		W	
3.	6.1	Angles (contd.)	08/22/14		F	
4.	6.2	Right Triangle Definitions	08/25/14		M	2
5.	6.2	Right Triangle Definitions (contd.)	08/27/14	*6.1	W	
6.	6.3	Triangle Definitions Using x, y, r	08/29/14		F	
7.	6.3	Triangle Definitions Using x, y, r (contd.)	09/03/14	*6.2	W	3
8.	6.4	Inverses I	09/05/14	*6.3	F	
9.	6.5	Law of Sines	09/08/14	*6.4	M	4
10.	6.5	Law of Sines (contd.)	09/10/14		W	
11.	6.6	Law of Cosines	09/12/14	*6.5	F	
12.		Review for Exam 1	09/15/14	*6.6	M	5
13.		Exam 1	09/17/14	*Ex1Review	W	
14.	7.1	Unit Circle	09/19/14		F	
15.	7.2	Unit Circle Definitions	09/22/14	*7.1	M	6
16.	7.2	Unit Circle Definitions (contd.)	09/24/14		M	
17.	7.3	Sine, Cosine Graphs	09/26/14		F	
18.	7.3	Sine, Cosine Graphs (contd.)	09/29/14	*7.2	M	7
19.	7.3	Sine, Cosine Graphs (contd.)	10/01/14		W	
20.	7.4	Other Graphs	10/03/14	*7.3	F	
21.	7.4	Other Graphs (contd.)	10/06/14		M	8
22.	7.5	Inverses II	10/08/14	*7.4	W	
23.	7.5	Inverses II (contd.)	10/10/14		F	
24.		Review for Exam 2	10/13/14	*7.5	M	9
25.		Exam 2	10/15/14	*Ex2Review	W	
26.	8.1	Algebra Review, Identities	10/17/14		F	
27.	8.1	Identities (contd.)	10/20/14	*AlgebraReview	M	10
28.	8.1	Identities (contd.)	10/22/14		W	
29.	8.2	Sum, Difference	10/27/14		M	11
30.	8.2	Sum, Difference (contd.)	10/29/14	*8.1	W	
31.	8.3	Double, Half Angles	10/31/14	*8.2	F	
32.	8.3	Double, Half Angles (contd.)	11/03/14		M	12
33.	8.4	Equations I	11/05/14	*8.3	W	
34.	8.4	Equations I (contd.)	11/07/14	*8.4A	F	
35.	8.5	Equations II	11/10/14	*8.4B	M	13
36.	8.5	Equations II (contd.)	11/12/14		W	
37.	8.5	Equations II (contd.)	11/14/14	*8.5A	F	
38.		Review for Exam 3	11/17/14	*8.5B	M	14
39.		Exam 3	11/19/14	*Exam3Review	W	
40.	9.1	Polar Coordinates	11/21/14		F	
41.	9.1, 9.2	Polar Coordinates (contd.). Polar Graphs	11/24/14		M	15
42.	9.2	Polar Graphs (contd.)	12/01/14	*9.1	M	16
43.		Review for Final Exam	12/03/14	*9.2	W	
44.		Review for Final Exam	12/05/14	*FinalExReview	F	

*WebAssign Homework due 11:59 pm

Important Dates

- **Monday, August 18** Class work begins
- **Monday, August 25**   100% refund, non-restrictive Drop/Add deadline. SIS Web Enrollment closes at midnight
- **Friday, August 29** 50% refund, restrictive Drop/Add deadline
- **Monday, September 1** Labor Day Holiday
- **Tuesday, September 30** Six week grades to be posted
- **Friday, October 24– Sunday, October 26**   Fall Break, OSU Homecoming Weekend
- **Friday, November 7** Fall Term W Drop/Withdraw deadline
- **Friday, November 21** Fall Term W/F Withdraw deadline
- **Wednesday, November 26 – Sunday, November 30**   Thanksgiving Break
- **December 1 – December 5** Pre-Finals Week
- **December 8 – December 12** Finals Week

Finally, I would like to mention that our course should prepare you for more serious mathematical courses. You have to develop skills and knowledge to find correct approaches and to apply formulas consciously. Ideas, methods and approaches really matter. Knowledge of the ideas and ability to apply them in an appropriate way defines a real professional. This is what I am going to help you with. If you need any help, please let me know and I will do my best. Your attitude is crucial to success. If you have a good attitude, and make an effort, you must succeed. This is not a big deal, believe me.
I wish you a great success in our course!