

**Department of Mathematics and Statistics**  
**MAT 145 — Trigonometry — Spring 2017**

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**Course Description:** Course is a study of plane trigonometry. Topics include angles, right triangle trigonometry, trigonometric functions and their graphs, identities, solving trigonometric equations, and applications of trigonometry. A student may not receive credit for MAT 145 and MAT 130 or 150. (MAT 145 in combination with MAT 140 will substitute for MAT 150.) (3 credit hours).

**Prerequisites:** ACT math standard score of at least 21 or MAT 097.

**Course Objectives:** Primary skills to be acquired involve understanding trigonometric functions: calculating their values, interpreting them on the unit circle, drawing their graphs, working with their inverses. Additionally, the course also includes solving equations and applying some identities and theorems involving trigonometric functions, and solving some simple real-world problems.

**Instructional Activities:** Lectures, problem solving, assignments.

**Field, Clinical, Laboratory Experiences, Resources:** None.

**Instructor:** Dubravko Ivanšić [DOO-brahv-ko EE-vahn-shich] Ivanšić is the last name.

**Phone & e-mail:** 809-3552, [divansic@murraystate.edu](mailto:divansic@murraystate.edu)

**Office:** Faculty hall 6A1 (in the Department of Mathematics and Statistics annex)

**Course webpage:** (A link to this has also been placed on Canvas.)

<http://campus.murraystate.edu/academic/faculty/divansic/17spring/145home.html>

**Office Hours:** Ask me or check the webpage.

**Textbook & Content Outline:** Marvin Bittinger et al, Algebra & Trigonometry, Graphs and Models, 6th edition (old editions will not work!), covering chapters (or their portions) 6–8.

**Graphing calculator:** A graphing calculator is required to take this course. The TI-84 is recommended, and is the one that I will use in class. Any other graphing calculator is OK, however, in this case, be aware that you are responsible to learn how to operate it, as I can offer only limited help here.

**Homework and worksheets:** The list of homework problems may be found on the webpage and each section will be assigned after we cover it. I recommend that you first go over the assigned problems in the textbook, and then use the online homework system MyMathLab to test your skill on the homework, after which we will discuss it in class. To further promote a continuous effort in the course and give you an exercise in writing things down, you will be given worksheets. The worksheets will contain some representative problems, but to succeed on tests you will need to work on all of the homework problems. Late worksheets will lose points.

**Don't fall behind:** MAT 145 develops some basic skills in trigonometry. While in this course you will see and do many things you may have seen before, don't think that you can do them independently until you have made sure by working out problems on your own.

Mathematics is best learned by doing and to acquire proficiency it is essential that you do many homework problems. For quality results, expect to spend at least one to two hours of study time for every hour of class time. If some things aren't clear to you, come to me for help as soon as possible, and not the day before the exam...

**Attendance:** Students are expected to adhere to the MSU Attendance Policy outlined in the current MSU Bulletins. Attendance is strongly encouraged every day, and roll will be taken. If you missed six or fewer classes during the semester, you get 3% bonus points. Note that you are not penalized for missing a class (the points are in excess to your total grade), so an absence is counted as such regardless of the reason ("excused" or not).

**Seating:** If there are seats available in the front rows of the classroom, no one will be allowed to sit in the back rows.

**Participation in class:** is strongly encouraged, as your questions indicate what points need to be addressed in more detail. We will go over some homework in class. You are expected to have worked the problems at home in order to both ask and answer questions on the homework. To encourage participation, a portion of your final course grade will be based on how active you are in class. In order to earn points, you need to be able to answer a homework question when called on.

**Exams:** There will be three exams whose dates will be announced well in advance.

**Final exam:** is comprehensive and will be held on Thursday, May 11th, at 1:30PM in our usual classroom.

**Grade:** For your final grade, each of the three exams is worth 27%, online homework is worth 8%, written worksheets are worth 8%, and participation in class is worth 3% of the total. Your final exam grade replaces your poorest exam grade only if it is better, so if you are happy with your exam scores during the semester, you don't have to take it. (Note that getting a good grade on the final is more difficult than on a regular exam, since it covers the whole semester.) No extra credit work will be given to repair your grade. The final grade scale is approximately

90%–100%=A, 80%–89%=B, 70%–79%=C, 60%–69%=D, 0%–59%=E.

**Make-ups:** Make-ups for exams will be given only in cases of illness, field trips or other unavoidable circumstances. You will need to provide written verification of the reason for your absence in advance and as soon as possible. If you are unexpectedly absent from an exam, contact me by phone or e-mail **that same day** and arrange to take a make-up. The make-up should occur *soon*, which typically means “before I return the exam”. Make-ups for other graded work will be given at my discretion. Asking for a make-up more than once makes it less likely that I will grant it.

**Academic honesty policy:** Murray State University takes seriously its moral and educational obligation to maintain high standards of academic honesty and ethical behavior. Instructors are expected to evaluate students' academic achievements accurately, as well as ascertain that work submitted by students is authentic and the result of their own efforts, and consistent with established academic standards. Students are obligated to respect and abide by the basic standards of personal and professional integrity.

Violations of Academic Honesty include: **Cheating** — Intentionally using or attempting to use unauthorized information such as books, notes, study aids, or other electronic, online, or digital devices in any academic exercise; as well as unauthorized communication of information by any means to or from others during any academic exercise; **Fabrication and Falsification** — Intentional alteration or invention of any information or citation in an academic exercise. Falsification involves changing information whereas fabrication involves inventing or counterfeiting information; **Multiple Submission** — The submission of substantial portions of the same academic work, including oral reports, for credit more than once without authorization from the instructor; **Plagiarism** — Intentionally or knowingly representing the words, ideas, creative work, or data of someone else as one's own in any academic exercise, without due and proper acknowledgement.

Instructors should outline their expectations that may go beyond the scope of this policy at the beginning of each course and identify such expectations and restrictions in the course syllabus. When an instructor receives evidence, either directly or indirectly, of academic dishonesty, he or she should investigate the instance. The faculty member should then take appropriate disciplinary action. Disciplinary action may include, but is not limited to the following: 1) Requiring the student(s) to repeat the exercise or do additional related exercise(s); 2) Lowering the grade or failing the student(s) on the particular exercise(s) involved; 3) Lowering the grade or failing the student(s) in the course. If the disciplinary action results in the awarding of a grade of E in the course, the student(s) may not drop the course.

Faculty reserve the right to invalidate any exercise or other evaluative measures if substantial evidence exists that the integrity of the exercise has been compromised. Faculty also reserve the right to document in the course syllabi further academic honesty policy elements related to the individual disciplines.

A student may appeal the decision of the faculty member with the department chair in writing within five working days. Note: If, at any point in this process, the student alleges that actions have taken place that may be in violation of the Murray State University Non-Discrimination Statement, this process must be suspended and the matter be directed to the Office of Equal Opportunity. Any appeal will be forwarded to the appropriate university committee as determined by the Provost.

**Non-Discrimination Policy Statement:** Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. In particular and without limiting the preceding and pursuant to and consistent with the requirements of Title VI of the Civil Rights Act of 1964 and its regulations 34 CFR 100 et seq.; Section 504 of the Rehabilitation Act of 1973 and its regulations 34 CFR 104; Title IX of the Education Amendments of 1972, 20 USC 1681 et seq., and its regulations 34 CFR 106 et seq; and the Age Discrimination Act of 1975 and its regulations 34 CFR 110, Murray State University does not discriminate on the basis of race, color, national origin, sex, handicap, or age in its educational programs and activities. This non-discrimination in education programs and activities extends to employment and admissions and to recruitment, financial aid, academic programs, student services, athletics, and housing. Murray State is required by Title IX and 34 CFR part 106 not to discriminate on the basis of sex and the prohibition against sex discrimination specifically includes a prohibition of sexual harassment and sexual violence. For more information contact the Executive Director of Institutional Diversity, Equity, and Access/ Murray State University Title IX Coordinator, Murray State University, 103 Wells Hall, Murray, KY 42071 Telephone: (270) 809-3155 Fax: (270) 809-6887; TDD: (270) 809-3361; Email: msu.titleix@murraystate.edu

	J12
	J11
	J10
	J9
	J8
	J7
	J6
	J5
	J4
	J3
	J2
	J1
	Final
	E3
	E2
	E1
Score	

Track your grades here:  
E=exam, J=worksheet.