SOUTHEASTERN LOUISIANA UNIVERSITY DUAL ENROLLMENT PROGRAM

MATHEMATICS 1620 COURSE INFORMATION SHEET/STUDENT SYLLABUS
2024-2025

COURSE TITLE:	Plane Trigonometry	**CREDIT:**	3 semester hours
ONLINE TEXT:	*College Algebra and Trigonometry* 11th Edition, by Sullivan accessed through the *MathXL* website	**PUBLISHER:**	Pearson Education

SOUTHEASTERN INSTRUCTORS OF RECORD:

Ronni Settoon*
ronni.settoon@southeastern.edu
(985)549-2175
*Southeastern Contact Person

Jamie Baham
jamie.baham-2@southeastern.edu
(985)549-2175

Craig Courville
craig.courville@southeastern.edu
(985)549-2175

Paige Foto
paige.foto@southeastern.edu
(985)549-2175

DUAL ENROLLMENT (DE) MATH 1620 is a blended course that provides high school students the opportunity to earn college credit for Plane Trigonometry while still in high school. The course content is primarily delivered online through *MathXL* and/or *Canvas*. The Southeastern instructors of record develop course content and provide online instructional materials such as videos and step-by-step learning aids, ungraded instructional assignments, and ungraded exam study guides to help prepare students to complete the graded assignments and the exams, which are also provided by the Southeastern instructors of record. The high school teachers act as facilitators; they assist with student registration and enrollment, proctor exams, provide supplemental instruction, and serve as a daily learning resource for students as they assimilate course content. The Southeastern instructors of record are assigned to specific schools, and will visit the classes periodically. The students' final course grades are assigned by the instructors of record.

PREREQUISITE: Credit in MATH 1610, and eligibility for Southeastern Mathematics Dual Enrollment courses, as outlined in the Southeastern Dual Enrollment Eligibility Guidelines.

TRANSFERRING COURSE CREDIT: It is incumbent upon all students and parents to determine the transferability of Dual Enrollment course credit to other institutions. For in-state institutions, Southeastern courses can be cross-referenced using the Statewide Articulation Matrix to determine transferability (https://regents.la.gov/articulationandtransfer/).

COURSE DESCRIPTION: Mathematics 1620 is a study of trigonometric functions. Topics include the trigonometric functions and their graphs, inverse trigonometric functions, trigonometric identities and trigonometric equations. Trigonometry and trigonometric functions will be used to model and solve real world applications. The typical weekly structure of the course includes in-class instruction, computer laboratory work, and out-of-class assignments. Computer and internet access are necessary for completion of all assignments, both in and out of class. Evaluations will be based on homework, quizzes, tests, and a final exam.

CALCULATORS: The TI-30XII (solar or battery) is required. The four-function calculator found on *MathXL* will be available on exams. NO OTHER CALCULATORS ARE ALLOWED ON TESTS, and thus are not recommended for use on homework or quizzes.

BREAKDOWN OF MATERIAL COVERED

Test	Textbook Sections Covered	Corresponding Quizzes
Unit 1	7.1, 7.2, 7.3, 7.4, 7.5 (The Unit Circle only)	Quiz 1 (7.1, 7.2), Quiz 2 (7.3, 7.4, 7.5)
Unit 2	7.5 (Properties of Trig Functions), 7.6, 7.7, 7.8, 8.1, 8.2	Quiz 3 (7.5), Quiz 4 (7.6, 7.7, 7.8), Quiz 5 (8.1, 8.2)
Unit 3	8.3, 9.1, 9.2, 9.3, 9.4	Quiz 6 (8.3), Quiz 7 (9.1, 9.2, 9.3, 9.4)
Unit 4	8.4, 8.5, 8.6	Quiz 8 (8.4), Quiz 9 (8.5), Quiz 10 (8.6)

COURSE GRADES: Percentages earned as follows determine the course grade.

COURSE GRADE COMPONENTS

4 Unit Tests	= 40% of course grade
Comprehensive Final Exam	= 30% of course grade
10 Quizzes	= 15% of course grade
17 Homework Sets	= 15% of course grade

COURSE GRADING SCALE

A	89.50% - 100%
B	79.50% - 89.49%
C	69.50% - 79.49%
D	59.50% - 69.49%
F	below 59.50%

Homework, quiz and test scores are reported immediately by *MathXL* upon submission. The current overall course grade is available at all times through the *Results* page in *MathXL*.

WITHDRAWAL DEADLINE: The last day to withdraw from this course depends on whether the format of the course is fall-only, year-long, or spring-only. The withdrawal deadlines are given in the table below. No withdrawals from this course can be made after the date given here for each course format. Note that it is the student's responsibility to complete withdrawal forms and file them with the appropriate high school personnel.

Deadline to Withdraw	Course Format
Friday, November 1, 2024 at 12:30 p.m.	Fall-only (course ends in December)
Friday, April 4, 2025 at 12:30 p.m.	Year-long or Spring-only (course ends in April/May)

COMPLETION DEADLINE: All coursework must be completed by the deadline shown in the table below, depending on whether the format of the course is fall-only, year-long, or spring-only. These deadlines are absolute; no credit will be given for coursework completed after the date given here for each course format.

Deadline to Complete All Coursework	Course Format
Friday, December 6, 2024	Fall-only (course ends in December)
Thursday, April 17, 2025	Year-long (begins in August/September, ends in April)
Friday, May 9, 2025	Spring-only (begins in January, ends in April/May)

HOMEWORK: Homework will be assigned for each textbook section of material covered and will be completed online through *MathXL*. Homework need not be completed in one sitting, but it must be completed before the due date and time. ***Students must click the "Check Answer" and "Save" buttons after each homework question in order for it to be recorded properly***. There are 19 homework assignments in total, worth 10 points each. At the end of the course, the two lowest homework scores will be dropped; the remaining 17 homework scores make up 15% of the course grade.

QUIZZES: There will be a quiz given approximately once per week, usually on material covered in two homework sets. Quizzes will be completed online through *MathXL*. Students will be able to submit each quiz up to 10 times, with the best score counted toward the course grade. Quizzes must be completed before the due date and time. ***Students must click the "Submit Quiz" button in order for it to be recorded properly***. There are 10 quizzes in total, worth 10 points each. At the end of the course, the two lowest quiz scores will be dropped; the remaining 8 scores make up 15% of the course grade.

TESTS: There are 4 unit tests, all completed through *MathXL*. There will be a practice assignment for each unit, available at least one week prior to the test through *MathXL*. The practice assignments cover the same topics as the tests and are intended to aid in studying for the tests; however, they are not timed and are not intended to mimic the tests. Each test is worth 100 points, and the lowest test grade is dropped at the end of the course. The remaining three grades make up 40% of the course grade. Note that all tests must be taken; if a test is skipped, it will receive a grade of 0 and be ineligible for dropping.

FINAL EXAM: The final exam is comprehensive and is completed through *MathXL*. There will be a practice assignment for the exam, available at least one week prior through *MathXL*. The practice assignment covers the same topics covered on the exam and is intended to aid in studying for the exam; however, it is not timed and is not intended to mimic the exam. The exam is worth 100 points, and the grade cannot be dropped. The final exam makes up 30% of the course grade.

DUE DATES AND MAKE-UP POLICY:
- Refer to the calendar in *MathXL* for all due dates on homework assignments, quizzes and tests. These dates will be determined and posted by your facilitator.
- Make-up work will be allowed only in the event of a valid, documented excuse. Any missed work not meeting the criteria will be assigned a grade of zero and will be ineligible for dropping.
- Contact your facilitator immediately if you miss a test or an assignment for instructions on how to proceed.
- All make-up work, including tests, must be completed upon return to school, no later than two weeks after the original due date as posted on the *MathXL* calendar for the assignment in question. Exceptions will be possible only in the event of documented extenuating circumstances, and will be considered on a case-by-case basis. Any request for consideration of special circumstances must be submitted by your facilitator to the Southeastern Louisiana University Mathematics Department within two weeks of the original due date for the assignment.
- All make-up homeworks/quizzes must be completed before the corresponding unit test is taken.

TECHNOLOGY REQUIREMENTS AND WORKING FROM HOME: Students are expected to have reliable internet and computer access outside of class, and they will be expected to complete homework assignments and quizzes outside of class. The online material for this course can be accessed from any computer with an internet connection. Learning aids, videos, and all homework assignments, quizzes and exercises are found on *MathXL* at www.mathxl.com. Additional videos, learning aids, and course documents are found on *Canvas*. Once registered for the class site in *MathXL*, students will be able to login to the site from home with their logins and passwords. It is the student's responsibility to ensure that any computer used outside of class has the appropriate plugins for *MathXL* to function properly. This is done by clicking into the course and running the **Browser Check** found on the main page of the *MathXL* course. NOTE: It is the student's responsibility to ensure that all homework and quizzes submitted from home are properly saved on the site. Students should check their scores online to ensure that credit has been assigned upon submission of each and every assignment. If homework and quiz grades are not successfully sent from home and the deadline passes, the student may not be able to make up the work.

CLASS MEETINGS: Classes will meet at times determined by the high schools. Refer to your high school schedule for times and locations of all class meetings.

ATTENDANCE AND PARTICIPATION POLICIES:
- **Class Meetings**: Every student is expected to attend and actively participate in class.
- **Computer Work**: Every student is **required** to work on assignments for this course both in and out of class every week.
- If you wish to withdraw from this course, it is your responsibility to complete all procedures for withdrawing from a course.

COMMUNICATION POLICY: Students are expected to use their Southeastern email addresses in all correspondence with their instructors of record.

TESTING: *All testing will be done in class, under strict supervision, following guidelines set forth by the Southeastern Louisiana University Mathematics Department.*

Students are expected to maintain the highest standards of academic integrity. Behavior that violates these standards is not acceptable. Actions that violate our standards of academic integrity include, but are not limited to, the following: use of unauthorized material, use of any website other than *MathXL*, use of an unauthorized calculator, communication with fellow students and/or other individuals during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work. Cheating on examinations and plagiarism are considered very serious offenses and shall be grounds for disciplinary action as outlined in Southeastern Louisiana University's current General Catalogue.
(http://www.southeastern.edu/resources/policies/policy_detail/acad_integrity.html)

TESTING RULES: Southeastern Louisiana University Mathematics testing guidelines include, but are not limited to, the following:
1. Arrive on time for testing. Each and every test/exam is only available for a certain pre-determined amount of time.
2. Your facilitator will provide you with scratch paper. No other paper is allowed.
3. All tests and final exams must be taken on school-owned Chromebooks or computers.
4. ALL belongings, including cell phones, smart watches and review materials, must be put away during testing, and should not be near your personal testing area.
5. Absolutely **no cell phones, smart watches or any other handheld communication devices** are allowed during testing. All cell phones must be turned OFF and put away out of sight. If a cell phone or smart watch is taken out and/or used during testing, it will result in a charge of academic misconduct and a score of ZERO on the test/exam (ineligible for dropping).
6. **No personal music devices** may be used during testing. Use of any such device during testing will result in a charge of academic misconduct and a score of ZERO on the test/exam (ineligible for dropping).
7. **No calculator other than the TI-30XII or the calculator contained within *MathXL* may be used during testing.** Use of another unsanctioned calculator during testing will result in a charge of academic misconduct and a score of ZERO on the test/exam (ineligible for dropping).
8. **No website other than *MathXL* and no other area of *MathXL*** may be accessed during testing. Accessing any such website during testing will result in a charge of academic misconduct and a score of ZERO on the test/exam (ineligible for dropping).
9. You may **not** write down any information pertaining to test or exam questions to take with you when you leave the classroom after testing. All scratch paper will be collected before you are allowed to leave. You may not share any test/exam information with anyone who has not taken the test/exam.

DISABILITY ACCESS STATEMENT: If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with your facilitator and/or the appropriate office at your school. That office or your facilitator will be required to forward all relevant information and paperwork to Southeastern Louisiana University. No accommodations will be granted without documentation from your school.

TITLE IX STATEMENT: Southeastern faculty and staff are committed to supporting our students and upholding gender equity laws as outlined by Title IX. Please be aware that if you choose to confide in a faculty or staff member regarding an issue of sexual misconduct, dating violence, or stalking, we are obligated to inform the university's Title IX Coordinator or Deputy Title IX Coordinator, who can assist you in connecting with all possible resources both on- and off-campus. For students who would like to speak with someone confidentially, the Student Counseling Center (985-549-3894) and the Student Health Center (985-549-2242) are both confidential resources.

FERPA GUIDELINES: Southeastern DE students have the same rights and responsibilities as any other Southeastern student. This includes the privacy protections afforded by the Family Educational Rights and Privacy Act (FERPA). Student are free to share their progress in their courses with their parent(s) if they so choose; however, course instructors may not speak with any parent about a student's progress in the course without the student first waiving FERPA rights. Southeastern's FERPA policy can be found here: http://www.southeastern.edu/resources/policies/policy_detail/ferpa.html.
For more information on the US Department of Education FERPA, visit the website
https://www2.ed.gov/policy/gen/guid/fpco/ferpa/index.html

APPEAL AND CHANGE OF GRADE: After a final course grade is recorded in the Records and Registration Office, a change of grade must be approved in sequence by the instructor of record/coordinator for DE math (Ms Ronni Settoon), the instructor's department head, and the academic dean of the College of Science and Technology. In the event of a contested final course grade, a student's written appeal of the grade must be submitted to the instructor within **thirty (30)** calendar days of final grades for the term being due. The grade appeal should also be submitted to Dr. Jeffrey Temple, Assistant Vice President for Academic Programs. Students wishing to appeal their final course grades should refer to the university's official Appeal and Change of Grade Policy here:
http://www.southeastern.edu/resources/policies/policy_detail/appeal_grade.html.

OTHER UNIVERSITY AND DE POLICIES: Please see the University Policy Statements posted on *Canvas* in the Course Information section. Note that students are **required** to complete the Course Syllabus and Policy Validation and the Online Learning Validation on *Canvas*. More information and other important university policies and requirements can be found at these links:
- University General Catalogue
   https://www.southeastern.edu/admin/registrar/university_catalog/index.html
- Student Handbook
   https://www.southeastern.edu/admin/stu_affairs/handbook/

For Dual Enrollment Program information, including transcript requests, password resets, academic dishonesty, student eligibility, and tuitions costs, see the program website here:
https://www.southeastern.edu/future_students/dual_enrollment/

COURSE OBJECTIVES: Upon completion of Mathematics 1620, students will be able to: interpret and use trigonometric functions and their graphs; interpret and use inverse trigonometric functions; use basic trigonometric identities; prove trigonometric identities; solve trigonometric equations; use trigonometric functions to model and solve real world applications.	
DE MATHEMATICS 1620 UNIT LEARNING OUTCOMES	
Textbook Section	**Student will be able to…**
7.1 Angles and Their Measure	Determine the measure of an angle in degrees or radians; Draw an angle with a given measure; Convert an angle measure from degrees to radians or from radians to degrees; Use the formula for the arc length of a circle; Use the formula for the area of a sector of a circle; Solve applications involving angles and their measures.
7.2 Right Triangle Trigonometry	Find the values of trigonometric functions of acute angles; Find the values of the remaining trigonometric functions, given the value of one or two of them; Use the Fundamental Identities and Complementary Angle Theorem.
7.3 Computing the Values of Trigonometric Functions of Acute Angles	Find the exact values of trigonometric functions; Use a calculator to approximate values of trigonometric functions of acute angles; Solve applications involving the values of trigonometric functions of acute angles.
7.4 Trigonometric Functions of Any Angle	Find trigonometric function values given points on terminal sides of angles in standard position; Use coterminal angles to find exact values of trigonometric functions; Name the quadrant in which a given angle lies; Find reference angles; Use reference angles to find exact values of trigonometric functions; Find exact values of trigonometric functions, given a value and information about the quadrant.
7.5 Unit Circle Approach; Properties of the Trigonometric Functions (The Unit Circle only)	Find the values of trigonometric functions using the unit circle or a circle of radius r.
**** End of Unit 1 ****	
7.5 Unit Circle Approach; Properties of the Trigonometric Functions (Properties of Trig Functions only)	Use periodic properties to find the exact values of trigonometric functions; Use even-odd properties to find the exact values of trigonometric functions; Use periodic and even-odd properties to evaluate trigonometric expressions; Identify the domain and range of trigonometric functions and whether they are even, odd, or neither.
7.6 Graphs of the Sine and Cosine Functions	Determine the properties, amplitude, and period of sinusoidal functions; Graph sinusoidal functions using amplitude, period, and key points; Graph functions of the form y=Asin(wx) and y=Acos(wx) using transformations; Find an equation for a sinusoidal graph; Solve applications involving sine and cosine functions.
7.7 Graphs of the Tangent, Cotangent, Cosecant and Secant Functions	Use graphs of trigonometric functions to determine characteristics of the function; Graph functions of the form y=Atan(wx)+B and y=Acot(wx)+B; Graph functions of the form y=Acsc(wx)+B and y=Asec(wx)+B
7.8 Phase Shift; Sinusoidal Curve Fitting	Graph functions of the form y=Asin(wx-theta)+B or y=Acos(wx-theta)+B; Find an equation for a sinusoidal function from properties or data; Graph other trigonometric functions using amplitude, period, and phase shift; Solve applications involving sinusoidal functions.
8.1 The Inverse Sine, Cosine and Tangent Functions	Find the exact value of an inverse sine, cosine, or tangent function; Find an approximate value of an inverse sine, cosine, or tangent function; Use properties of inverse functions to find exact values of certain composite functions; Solve applications involving inverse sine, cosine, and tangent functions.
8.2 The Inverse Trigonometric Functions (Continued)	Find the exact values of expressions involving the inverse sine, cosine, and tangent functions; Find the exact values of expressions involving the inverse secant, cosecant, and cotangent functions.
**** End of Unit 2 ****	

8.3 Trigonometric Equations	Solve equations involving a single trigonometric function; Solve trigonometric equations using a calculator; Solve trigonometric equations quadratic in form; Solve trigonometric equations using fundamental identities; Solve trigonometric equations with half-angles and double-angles.
9.1 Applications Involving Right Triangles	Solve right triangles; Solve applications involving right triangles.
9.2 The Law of Sines	Solve SAA or ASA triangles; Solve SSA triangles; Solve applications using the Law of Sines.
9.3 The Law of Cosines	Solve SAS triangles; Solve SSS triangles; Solve applications involving the use of the Law of Cosines.
9.4 Area of a Triangle	Find the area of SAS triangles; Find the area of SSS triangles; Find the area of a triangle given two angles and a side; Solve applications related to finding the area of triangles.
** End of Unit 3 **	
8.4 Trigonometric Identities	Use algebra to simplify trigonometric expressions; Establish trigonometric identities.
8.5 Sum and Difference Formulas	Use sum and difference formulas to find exact values; Use sum and difference formulas to establish identities; Use sum and difference formulas involving inverse trigonometric functions.
8.6 Double-angle and Half-angle Formulas	Use double-angle and half-angle formulas to find exact values; Use double-angle and half-angle formulas to establish identities; Solve trigonometric equations using identities; Solve trigonometric equations with half-angles and double-angles.
** End of Unit 4 **	