



TED120 Technical Math I Syllabus

Course Information

Credits	2
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

Description

This course is a math review of practical skill as related to the drafting workplace where the students utilize fractions, decimals, simple equations, powers and roots, ratios and proportion, plane geometry, right triangles, oblique triangles, computation of areas and volumes, and use of charts and graphs.

Textbooks

none

Student Learning Outcomes:

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

Competencies

- 1. Change a number in one form (percent, fraction, or decimal) to the other two forms.
- 2. Use significant figures correctly to denote the accuracy of a mathematical answer.
- 3. Use a conversion chart to change from one unit
- 4. Define: straight lines, bisector of an angle,
- 5. Use the correct notations for lines and angles
- 6. Define opposite angles, alternate-interior angles, complementary angles, supplementary angles, straight angles
- 7. Define polygon
- 8. Define perimeter
- 9. Define: triangle, oblique triangle, right triangle, equilateral triangle, isosceles triangle, congruent triangles, similar triangles
- 10. List and use the formulas for the area of triangle

11. Explain what is needed to prove congruence of triangles
12. Explain what is needed to prove similarity of triangles
13. List and use the Pythagorean formula
14. Use ratios to solve slope and pitch problems.
15. Define: quadrilateral, trapezoid, trapezium, and parallelogram
16. Use the formulas for the areas of a trapezoid, trapezium, and a parallelogram
17. List properties of the circle, including its parts
18. Define circumference
19. Identify pi and its value
20. List and use the formula for circumference
21. List and use the formula for area of a circle
22. Define: sector, quadrant, and segment
23. Use the formula of length of an arc, area of a sector, and area of a segment
24. Define: volume
25. Identify: rectangular solid, prism, cylinder
26. Use the formulas for the area of: rectangular solid, prism, and cylinder

Guidelines for Success

Assessment Plan

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Criteria:

- A 92% - 100%
- B 84% - 91%
- C 76% - 83%
- D 68% - 75%
- F 67% or below

Attendance

A student can receive 1 hour make-up by completing a two page typed paper, on an approved subject, double spaced, 12 point font, and with at least 2 sources identified.

Disability

The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator

Phone: 785-228-6356

E-Mail: ssscoordinator@washburn.edu

