MAT102 Technical Math II

Course Information

Credits 3
Campus Washburn Institute of Technology
Address 5724 SW Huntoon
City/State/Zip Topeka, Kansas 66604
Office Fax 785-273-7080

Description
Technical Mathematics II is a continuation of Technical Mathematics I. The concepts learned in this course will build on problem solving skills using geometry, algebraic expressions and techniques for solving equations. These concepts develop a solid foundation for success in the use of technology.

Textbooks

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. Express word statements as algebraic expressions.
2. Evaluate algebraic expressions by substituting given numbers for letter values.
3. Simplify combined operations of literal term expressions.
4. Solve literal term problems.
5. Express word problems as equations.
6. Solve problems by writing equations and determining the values of unknowns.
7. Substitute values in formula and solve for unknowns.
8. Solve equations consisting of combined operations.
9. Calculate the perimeter and circumference of various geometric figures.
10. Calculate the area and volume of various geometric figures.
11. Apply the Pythagorean Theorem.
12. Compute complements and supplements of angles.
13. Identify different types of angles.
14. Identify types of triangles by sides or angles.
15. Apply isosceles and equilateral triangle theorem in computing triangle sides and angles.
16. Apply circumference and arc length formulas in computations.
17. Apply chord, tangent, arc and central angle theorems in computations.

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.

Exams are given periodically, usually at the end of each chapter. The Final Exam will be cumulative and is required for course completion.

Grading Rationale and Grading Scale
A 100 – 90
B 89 – 80
C 79 – 70
D 69 – 60
F 59 – lower

The overall course grade will be calculated from 40% homework, 20% exams/quizzes, 10% attendance/participation, and 30% final exam.

Homework is valuable practice for the understanding of the course materials. Students can expect homework assignments for each class period that will be due at the beginning of the next class. Late work will be accepted no later than the next class period at 70% credit.

Attendance
Classroom attendance is required and recorded daily. Excused absences will be determined solely by the instructor. Material missed must be made up with instructor. Class participation is encouraged during class time which can include involvement with discussions, appropriate questions and topics and, especially, helping fellow students.
**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