OET 008– STRENGTH OF MATERIALS

Credit Hour Recommendation: 3 Semester Hours
Pre-Requisite: Statics (OET007)
Related TAG: Mechanical/Manufacturing Engineering Technology
General Course Description: Analysis of physical properties, strength characteristics, stress development, deformations and failure limits of engineering materials used in different types of loading and support conditions in engineering structures. Mechanical and thermal loads are studied. Applications include axial, bending, and shearing stresses; deflection and rotation; beams, columns, and tension members. Learning outcomes are achieved through various in class and laboratory experiences.
Student learning outcomes marked with an asterisk (*) are **essential** and must be met.
1. Determine the stress, strain and deformation in a member carrying axial tensile or compressive loads.*
2. Determine direct shear stress.*
3. Determine torsional shear stress and deformation.*
4. Determine the stress due to loading in beams.*
5. Analyze the effects of stress concentrations.*
6. Analyze shear stress in beams.*
7. Analyze the deflection of beams due to a variety of loading and support.*

MECHANICAL/MANUFACTURING ENGINEERING TECHNOLOGY TAG:
STRENGTH OF MATERIALS
FACULTY PARTICIPANTS
August-September 2016

Name	**Institution**
Dan Burklo (Lead)	Northwest State Community College
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