

## OET 009– FLUID MECHANICS

<p><b>Credit Hour Recommendation:</b> 3 Semester Hours</p>
<p><b>Pre-Requisite:</b> General Physics I (OSC014) or Statics (OET007)</p>
<p><b>Related TAG:</b> Mechanical/Manufacturing Engineering Technology</p>
<p><b>General Course Description:</b> This course examines the basic properties of fluids and the topics of pressure, forces, fluids in motion, and viscosity. The application of fluid statics and fluid dynamics to the solution of fundamental engineering fluid problems. The one-dimensional energy and momentum equations are introduced and applied to the solution of fluid flow problems. Learning outcomes are achieved through various in class and laboratory experiences.</p>
<p>Student learning outcomes marked with an asterisk (*) are <b>essential</b> and must be met.</p>
<p>1. Explain forces on plane and curved boundaries.*</p>
<p>2. Define piping systems and the dynamics of pipe flow.*</p>
<p>3. Design piping systems involving friction, systems with laminar and turbulent flow.*</p>
<p>4. Explain the difference between absolute and gage pressures.*</p>
<p>5. Explain the principles of hydraulic power transmission.*</p>
<p>6. Apply Pascal's Law and Bernoulli's Equations in the analysis of the properties of fluids.*</p>

**MECHANICAL/MANUFACTURING ENGINEERING TECHNOLOGY TAG:  
FLUID MECHANICS  
FACULTY PARTICIPANTS  
August-September 2016**

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Dan Burklo (Lead)	Northwest State Community College
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