

MET 3714 - Fluid Mechanics

Fall 2026 Syllabus, Section 01, CRN 40850,

Credit hours: 3

Instructor

Michelle Seifert

Email: macurl@ysu.edu

Public Instructor Information

Master of Industrial Engineering & Management - MSE, Youngstown State University, 2014

Bachelor of Mechanical Engineering Technology - BSA, Youngstown State University, 2012

Student Support Hours/Office Hours: M/W 4-5 pm, Tues 1-4 pm. Other times are available, usually before or after class

Additional Contact Methods: 330-941-2365

Office Location: Moser Hall #4120

Preferred Contact Method: email

How to Refer to me: Professor Seifert

Course Description

3714. Fluid Mechanics. Principles of fluid statics and fluid dynamics and their application to incompressible flow in pipes and channels; Bernoulli's equation, laminar and turbulent flow; energy and momentum in fluid flow. Prereq.: "C" or better in MET 1515. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Required	Applied Fluid Mechanics - 8th Edition	Robert L. Mott	978-0-13-557715-8

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Reading(s)	Proposed Topic	Due/To Prepare for Class
8/24	CH 1	Introduction	
8/31	CH 2	Viscosity of Fluids	
9/7	CH 3	Pressure Measurement	
9/14	CH 4	Forces Due to Static Fluids	
9/21	CH 5	Bouyancy	
9/28	CH 6	Flow of Fluids and Bernoulli's Equation	
10/5	CH 7	General Energy Equation	
10/12	CH 8	Reynolds Number, Laminar Flow, Turbulent Flow, and Energy Losses Due to Friction	
10/19	CH 10	Minor Losses	
10/26	CH 11	Series Pipeline Systems	
11/2	CH 12	Parallel and Branching Pipeline Systems	
11/9	CH 13	Pump Selection and Application	
11/16	CH 15	Flow Measurement	
11/23	CH 16	Forces Due to Motion	

11/30	Review All Chapter	Finale Exam Review
12/7	Review All Chapters	Final Exam

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.