



## Lectures of the Department of Civil Engineering

Subject Title:- **Fluid Mechanics**

Class:-

	Lecture sequences	First lecture	Instructor Name
Lecture Contents	The major contents :		
	1- Static fluid		
Lecture Contents	The detailed contents:		
	1- Static fluid 2-Static forces on submerged surfaces 3-Pressure at point 4-Basic equation for static fluid 5-Types of pressure 6-Pressure measurement 7-Fluid properties 9-Fluid definition 10-Units and dimensions		

	Lecture sequences	Second lecture	Instructor Name
Lecture Contents	The major contents : 1- Static fluid		
	The detailed contents: 1- Static fluid 2-Static forces on submerged surfaces 3-Pressure at point 4-Basic equation for static fluid 5-Types of pressure 6-Pressure measurement 7-Fluid properties 9-Fluid definition 10-Units and dimensions		

	Lecture sequences	Second lecture	Instructor Name
Lecture Contents	The major contents : 1- Viscosity		
	The detailed contents: 1 Viscosity <ul style="list-style-type: none"> <li>• Density</li> <li>• Specific volume</li> <li>• Specific weight</li> <li>• Bulk modulus of elasticity</li> <li>• Surface tension</li> <li>• Newton's law in viscosity</li> </ul> 2-Pressure measurement 3-Fluid properties 4-Fluid definition 5-Units and dimensions		

	Lecture sequences	Third lecture	Instructor Name
Lecture Contents	The major contents : 1- Viscosity		
	The detailed contents: 1 Viscosity <ul style="list-style-type: none"> <li>• Density</li> <li>• Specific volume</li> <li>• Specific weight</li> <li>• Bulk modulus of elasticity</li> <li>• Surface tension</li> <li>• Newton's law in viscosity</li> </ul> 2-Pressure measurement 3-Fluid properties 4-Fluid definition 5-Units and dimensions		

	Lecture sequences	fourth lecture	Instructor Name
Lecture Contents	The major contents : 1- Forces on submerged plain surfaces		
	The detailed contents: <ul style="list-style-type: none"> <li>• Forces on submerged plain surfaces</li> <li>• Forces on submerged curved surfaces</li> <li>• Buoyancy and flotation</li> <li>• Stability of submerged and floating bodies</li> <li>• Accelerated fluids</li> </ul>		

	Lecture sequences	fifth lecture	Instructor Name
Lecture Contents	The major contents : 1- Kinematics of fluid motion/ types of flow		
	The detailed contents: <ul style="list-style-type: none"> <li>• Kinematics of fluid motion/ types of flow</li> <li>• Mass conservation law/ continuity equation</li> <li>• Energy conservation law/ bernolli's equation</li> <li>• Application of bernolli's equation</li> <li>• Analysis of free liquid jet</li> </ul>		

	Lecture sequences	sixth lecture	Instructor Name
Lecture Contents	The major contents : 1- Kinematics of fluid motion/ types of flow		
	The detailed contents: <ul style="list-style-type: none"> <li>• Kinematics of fluid motion/ types of flow</li> <li>• Mass conservation law/ continuity equation</li> <li>• Energy conservation law/ bernolli's equation</li> <li>• Application of bernolli's equation</li> <li>• Analysis of free liquid jet</li> <li>• Application of bernolli's equation</li> <li>• Analysis of free liquid jet</li> <li>• Computing the head of pump and turbine in pipe lines</li> <li>• Study the flow throw orifice in a tank</li> </ul> Flow measurement		

Lecture Contents	Lecture sequences	seventh lecture	Instructor Name
	The major contents : 1- Flow rate measurements		
	The detailed contents: <ul style="list-style-type: none"> <li>• Flow measurement</li> <li>• Flow rate measurements</li> <li>• Venture meter</li> <li>• Orifice meter</li> <li>• Nozzle meter</li> </ul>		