

Title: Fluid Mechanics			
Code number:	231KEY	Type:	Optional Compulsory
Level:	Undergraduate		
Year:	3	Semester:	E
ECTS Units:	5	Teaching Units:	3
Lecturer(s):	Pilinis, Christodoulos		
Content outline and weekly schedule:	1. Introduction 2. Fluid Properties, Fluid Statics 3. Fluids in Motion 4. Extensive and Intensive Properties 5. Newtonian and Non-Newtonian fluids 6. Mass conservation- Continuity Equation-Examples 7. Momentum Principle -Examples 8. Energy Principle -Examples 9. Flow in Conduits 10. Surface resistance and Energy Losses from Fittings 11. Pumps and Turbines 12. Flow in Open Channels 13. Hydraulic Jump - Examples		
Learning Outcomes:	Basic knowledge of fluid mechanic principles.		
Prerequisites:	-		
Recommended Reading:	Lecture notes:	-	
	Basic textbooks:	Αυλωνίτης, Σ. Α. & Αυλωνίτης, Δ. Α. 2006, «Μηχανική των Ρευστών», 4 ^η έκδοση, Ιων, Αθήνα. ISBN 960411557-X	
	Additional References:	• Bird, R. B., Steward, W. E. & Lightfoot, E. N., 2001 "Transport Phenomena 2nd Edition", Wiley, New York. ISBN 0471410772 • Roberson, J. A. & Crowe, C. T., 1997 "Engineering Fluid Mechanics", Wiley, New York. ISBN 0471147354 • Fischer, H. B., List, E. J., Koh, R. C., Imberger, J., and Brooks, N. H., 1979, "Mixing in Inland and Coastal Waters", Academic Press, New York. ISBN 0122581504	
	Internet links:	-	
Learning Activities and Teaching Methods:	Lectures (hours/week):	3	
	Practicals-Tutorials (hours/week):	During Lectures	
	Other learning activities:	-	

Assessment/Grading:	Final exam
Instruction Language:	Greek
Mode of delivery:	Face-to-Face