COURSE INTRODUCTION

Subject Name : FLUID MECHANICS

Subject Code : 3CE4-06

Branch : Civil Engineering

Year : 2ND Year 3RD SEM

Jaipur Engineering College and Research Center, Jaipur

Department of civil engineering

(Rajasthan Technical University, KOTA)

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER, JAIPUR

CIVIL ENGINEERING DEPARTMENT

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VISION OF INSTITUTE

To became a renowned centre of outcome based learning and work towards academic professional ,cultural and social enrichment of the lives of indivisuals and communities

MISSION OF INSTITUTE

- Focus on evaluation of learining ,outcomes and motivate students to research apptitude by project based learning.

- Identify based on informed perception of indian ,regional and global needs ,the area of focus and provide plateform to gain knowledge and solutions.
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- Offer oppurtunites for interaction between academic and industry .
- Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders may emerge.

VISION & MISSION OF CIVIL DEPARTMENT

VISION OF CIVIL DEPARTMENT

To become a role model in the field of Civil Engineering for the sustainable development of the society.

MISSION OF CIVIL DEPARTMENT

1) To provide outcome base education.

2) To create a learning environment conducive for achieving academic excellence.

3) To prepare civil engineers for the society with high ethical values.

PROGRAM EDUCATIONAL OBJECTIVES OF CIVIL DEPARTMENT

1. To strengthen students with fundamental knowledge, effective computing, problem solving and communication skills enable them to have successful career in civil engineering.

2. To enable students in acquiring civil engineering's latest tools, technologies and management principles to give them an ability to solve multidisciplinary engineering problems.

3. To impart students with ethical values and commitment towards sustainable development in collaborative mode.

4. To reinforce students with research aptitude and innovative approaches which help them to identify, analyze, formulate and solve real life problems and motivates them for lifelong learning.

5. To empower students with leadership quality and team building skills that prepare them for employment, entrepreneurship and to become competent professionals to serve societies and global needs

PROGRAM OUTCOMES

1. **Engineering Knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems in Civil Engineering.
2. **Problem analysis:** Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences in Civil Engineering.
3. **Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations using Civil Engineering.
4. **Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions using Civil Engineering.
5. **Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and Civil Engineering tools including prediction and modeling to complex engineering activities with an understanding of the limitations in Civil Engineering.
6. **The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice using Civil Engineering.
7. **Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development in Civil Engineering.
8. **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice using Civil Engineering.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings in Civil Engineering.
10. **Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
11. **Project Management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage Civil Engineering projects and in multidisciplinary environments.
12. **Life –long Learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological changes needed in Civil Engineering.

COURSE OUTCOMES

Subject Name : Fluid Mechanics

Year/Semester : **2nd Year/ 3rd Sem**

Faculty Name : Ashish Boraida

CO-PO MAPPING

CO-1	Student will be able to understand basics of fluid mechanics, types of fluids.
CO-2	Student will be able to understand fluid statics and buoyancy.
CO-3	Student will be to understand Kinematics of flow and fluid dynamics and solving relevant problems.
CO-4	Student will be to understand Bernoulli's equation and laminar flow with practice of solving problems.

Fluid Mechanics

MAPPING OF PEOs & POs

PROGRAM EDUCATIONAL OBJECTIVES	PROGRAM OUTCOMES											
	1	2	3	4	5	6	7	8	9	10	11	12
I	H	L			M			H				H
II	H	H	M	M		H			L		L	L
III	L	H	M	H	L			M			M	
IV	M			L	M		H	M	H		M	
V	M	M	H	L			M		H	M		

MAPPING OF COs & POs

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	H	M	M	H	-	M	-	-	M	M	M	H
CO2	H	M	-	H	L	H	L	L	M	L	-	M
CO3	H	H	H	M	-	H	M	L	M	L	M	M
CO4	H	H	H	M	L	H	H	L	H	H	H	L