

TEMPLATE FOR COURSE SPECIFICATION

HIGHER EDUCATION PERFORMANCE REVIEW: PROGRAMME REVIEW

COURSE SPECIFICATION

This Course Specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. It should be cross-referenced with the programmer specification.

1. Teaching Institution	Al-Ayen University
2. University Department/Centre	College of Petroleum Engineering
3. Course title/code	Fluid mechanics
4. Modes of Attendance offered	classes
5. Semester/Year	year
6. Number of hours tuition (total)	2
7. Date of production/revision of this specification	9/10/2023
Aims of the Course	
1. Learn the difference between units and dimensions of quantities and how to find the dimensions and units of each quantity	
2- Studying the properties of fluids and finding the most important parameters related to them	
3- Studying different fluid pressure gauges	
4- Study of static fluids and their most important properties	
5- Study of moving fluids and the most important types of flow	
6- Studying the types of pumps used in fluid flow	
7- Study of theoretical dimensions analysis	
10. Learning Outcomes, Teaching ,Learning and Assessment Methode	
A- Cognitive goals	
A1- Distinguish between different measurement systems	
2A- Finding the most important properties of materials such as viscosity, density, etc	
3A- Knowing the different types of pressure devices	

4A- Know the properties of static fluids 5A- Know the properties of moving fluid flow 6A- Knowing the types of pumps used in fluid flow 7A- Knowing the most important methods of analyzing theoretical dimensions B. The skills goals special to the course. B1 - Asking questions B2 - Solve examples and problems B3 - The student will be able to know the science of fluid mechanics B4 - The student will be able to create special dimensional analyzes
Teaching and Learning Methods 1- Giving lectures inside classes 2- Curriculum books approved and approved in the university calendar 3- Daily and monthly exams with homework
Assessment methods 1 - Daily exams representing 6% 2- Semester exam number 2 representing 20% 3- Attendance %2 4- Daily duties 2%
C. Affective and value goals C1- The student expresses a desire to know the areas of the types of pumps and how to deal with moving fluids. C 2 - The student seeks to apply different methods in the solution. C3 - The student proposes a research topic in the direction of a particular problem. C4- The student has a position in solving a specific problem in his field of specialization.
Teaching and Learning Methods • Delivering lectures in classes • Discussions and scientific dialogues and ask questions
Assessment methods 1- Daily and class duties through discussion 2- Commitment to the specified times, whether lectures or handing in assignments
D. General and rehabilitative transferred skills (other skills relevant to employability and personal development) D1 - Develop students' abilities to find solutions in the future D2 - Develop the student's abilities to open discussion D3 - Develop the student's abilities to be self-reliant in research issues
11. Course Structure

Week	Hours	Required learning outcomes	Unit/Module or Topic Title	Teaching Method	Assessment Method
1	2	scientific knowledge	Unit and dimension	lecture + discussion	Exam and daily questions
2	2	scientific knowledge	Fluid flow in pipes	lecture + discussion	Exam and daily questions
3	2	scientific knowledge	Fluid static	lecture + discussion	Exam and daily questions
4	2	scientific knowledge	Dimensional analysis	lecture + discussion	Exam and daily questions
5	2	scientific knowledge	Fluid flow measurment	lecture + discussion	Exam and daily questions
6	2	scientific knowledge	Flow of compressible fluids	lecture + discussion	Exam and daily questions
7	2	scientific knowledge	Two phase flow of liquid and gas	lecture + discussion	Exam and daily questions
8	2	scientific knowledge	Fluid properties	lecture + discussion	Exam and daily questions

12.Infrastructure

1. Books Required reading:	Fluid Mechanics: Fundamentals and Applications13th Edition c2014
2. Main references (sources)	Advances in Fluid Mechanics
A- Recommended books and references (scientific journals, reports...).	Fundamentals of fluid mechanics
B-Electronic references, Internet	https://www.amazon.com/Fundamentals-

sites...	Fluid-Mechanics-Bruce-Munson/dp/1118116135
13.The development of the curriculum plan	Update the course periodically through continuous access to the most important scientific sources in the field of specialization and benefit from them.

