

TEMPLATE FOR COURSE SPECIFICATION

Industrial Management

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 programme specification.

1. Teaching Institution	University of Technology
2. University Department/Centre	Chemical Engineering Department
3. Course title/code	Industrial Management CE345
4. Programme(s) to which it contributes	No similar
5. Modes of Attendance offered	Fall
6. Semester/Year	1 semester/year
7. Number of hours tuition (total)	3
8. Date of production/revision of this Specification	5-5-2014
9. Aims of the Course	
1. Provide knowledge to the concept of industrial management structure (planning, organization, controlling and leading)	
2. How to prepare feasibility study and methods to estimate project cost	
3. To provide information on effective maintenance planning	
4. Understand the characterization of quality control, quality assurance, total quality management and ISO fundamental basics	

10• Learning Outcomes, Teaching, Learning and Assessment Method
A-Knowledge and Understanding A1. Develop a deep understanding of issues related to the different industrial management departments and inter related connections A2. The ability to make appropriate choices of the project regarding to the economics analysis A3. Understand the relationship between quality control and quality assurance A4. Understand the main requirements for ISO specifications
B.Subject-specific skills B1. Prepare feasibility study B2. Analyze the economical cost of the chemical plants . B3. .. The ability to decide the right steps for maintained of the plant equipments plant
Teaching and Learning Methods
Lectures, Tutorials , Example Classes,
Assessment methods
Midterm exams , Final exam , Quizzes,
C. Thinking Skills C1. Characterization and analyses project economics and profits C2. C3. C4.
Teaching and Learning Methods
Lectures, Tutorials , Example Classes,
Assessment methods
Midterm exams , Final exam , Quizzes,

D. General and Transferable personal development).

Skills (other skills relevant to employability and

D1.

D2.

D3.

11. Course Structure

Week	Hours	ILOs	Unit/Module or Topic Title	Teaching Method	Assessment Method
1st semester					
1	3	Understand the main concept of industrial management	Principles of management, classification, management responsibility, organization responsibility, management planning, management's levels	Lectures, ,	partial test (Oral questions)
2	3	Identifying the structures of industrial organization department	Principles of management, classification, management responsibility, organization responsibility, management planning, management's levels	Lectures, ,	partial test (Oral questions , quiz)
3	3	The interrelation of the different department in industrial organization	Principles of management, classification, management responsibility, organization responsibility, management planning, management's levels	Lectures, ,	partial test (Oral questions , quiz)
4	3	The basic principles of plant economy Fixed and working investment	Planning and preparation, economic feasibility study, plant layout, cost (fixed cost, working cost, cost index, project cash flow diagram, tax, budgetary control).	Lectures, Example Tutorials ,	partial test (Oral questions , exam)
5	3	Different approach for equipment cost estimation and depreciation	Planning and preparation, economic feasibility study, plant layout, cost (fixed cost, working cost, cost index, project cash flow diagram, tax, budgetary control).	Lectures, Example Tutorials ,	partial test (Oral questions)
6	3	Financial analysis of the plant	Planning and preparation, economic feasibility study, plant layout, cost (fixed cost, working cost, cost index, project cash flow diagram, tax, budgetary control).	Lectures, Example Tutorials ,	partial test (Oral questions)
7	3	Comparison of different methodology of maintenance	Purpose of maintenance, types and classifications, cost of maintenance operations, machines replacement (principles and planning), Depreciation.	Lectures, Example	partial test (Oral questions , quiz)

		approach			
8	3	Maintenance plans effects on cost	Purpose of maintenance, types and classifications, cost of maintenance operations, machines replacement (principles and planning), Depreciation.	Lectures, Example	partial test (Oral questions)
9	3	Project managment plans	Principles and applications, critical bath method (CPM),Gantt chart ,pert techniques	Lectures, Example	partial test (Oral questions ,exam
10	3	Sample inspection concepts	Unit samples, sample schedule, types of samples Specifications (types and classification), sampling techniques, quality cost, quality control chart,Deviation	Lectures,	partial test (Oral questions ,quiz
11	3	The advanteges of QC and QA	- Unit samples, sample schedule, types of samples Specifications (types and classification), sampling techniques, quality cost, quality control chart,Deviation	Lectures,	partial test (Oral questions
12	3	The advanteges of QC and QA	Unit samples, sample schedule, types of samples Specifications (types and classification), sampling techniques, quality cost, quality control chart,Deviation	Lectures,	partial test (Oral questions ,quiz
13	3	The concept of TQM	Total quality control	Lectures,	partial test (Oral questions ,exam
14	3	What ISO mean and the benifts of applying	Principles,(organization ,documentation, auditing), requirements ,applications , iso series ,isostages	Lectures,	partial test (Oral questions
15	3	The basic principles of ISO specification and requirements	Principles,(organization ,documentation, auditing), requirements ,applications , iso series ,isostages	Lectures,	partial test (Oral questions

12.Infrastructure	
<p>Requiredreading:</p> <ul style="list-style-type: none"> ·CORETEXTS ·COURSEMATERIALS ·OTHER 	<ul style="list-style-type: none"> ○ Lecturers -Banga T., and Sharma S. " Industrial Engineering Management including Production Management " Khanna publisher 11th edition 2008 - Towler G. and Sinnott R " Chemical Engineering Design " 2nd edition 2013 Elesvier - Peters M. , Timmerhaus D. and West R. " Plant Design and Economics for chemical Engineers " 5th edition 2005 McGraw-Hill

Special requirements (include for example workshops, periodicals, IT software, websites)	Websites for cost index
Community-based facilities (include for example, guest Lectures, internship, field studies)	

13. Admissions	
Pre-requisites	Before undertaking this module the student should have undertaken the following: Basic Principles of Chemical Engineering, Equipment Design, Heat Transfer, Transport Phenomena, Statistics, Mathematics
Minimum number of students	Central Admission
Maximum number of students	Central Admission