

Academic Course Description

<p>BHARATH UNIVERSITY Faculty of Engineering and Technology Department of Civil Engineering</p> <p>BCE704 MANAGEMENT CONCEPTS FOR CIVIL ENGINEERS Seventh Semester, 2017 - 18 (Odd Semester)</p>
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Course (catalog) description

This subject covers basics of management ,marketing,finance,resource management in construction.

Compulsory/Elective course : Compulsory for Civil students

Credit / Contact hours : 3 credits / 45 hours

Course Coordinator : Assistant Professor

Instructors :

Name of the instructor	Class handling	Office location	Office phone	Email (domain:@bharathuniv.ac.in)	Consultation
Mr. K.Venkatraman, Assistant Professor	Fourth year Civil	Civil Block			9.00 - 9.50 AM

Relationship to other courses:

Pre –requisites : BCE 701 Estimation and costing

Assumed knowledge : BCE 701 Estimation and costing

Following courses : Nil

Syllabus Contents

UNIT I

BASIC CONCEPTS

9

Types of business operations, Sole proprietorship partnership, Company, public and private sector enterprises / Joint ventures, collaborations. Functions of Management / Principles of management, inventory control, Management tools , L.P.P.E.R.T., CPM, etc.

UNIT II

INTRODUCTION TO MARKETING AND FINANCIAL MANAGEMENT

9

Marketing – Marketing Segmentation, Positioning, Marketing Research, Marketing planning, Scope of financial management – Cost accounting Vs Financial accounting. Appraisal of projects, investment decisions, concept of pay back.

UNIT III

MATERIALS AND EQUIPMENT MANAGEMENT

9

Planning – Identification, Procurement, Schedule and Cost control – Systems approach- resource management - ABC analysis, VED analysis, FSN analysis, vendor rating evaluation, buying versus leasing of equipment.

UNIT IV

HUMAN RESOURCE MANAGEMENT

9

Scope of objectives of HRM – Man power policy and planning – Recruitment and selection. Training performance appraisal. - Wage policy and compensation systems. Company union relationship and collective bargaining - Accidents absenteeism and turn over – Grievances / conflicts – Identification and resolution.

UNIT V

INTRODUCTION TO COMPUTER APPLICATION IN CONSTRUCTION MANAGEMENT

9

Planning, Scheduling and Resource analysis. Recording and operations project accounting, costing and finance - usage of project management software.

Total No. of Periods : 45

Text Books:

1. Konni, Donnel C.O. and weighrich H., Management, Eight edition. McGraw Hill International Book Company.
2. Philip Kotler, Marketing management, Prentice – Hall of India, Edition .

References:

1. Momoria, Personal management, Himalaya Publishing Co., 1992.
2. Sharma J.L. Construction management and accounts, Sathya Prakashan, New Delhi, 1994.
3. Srinath, LS., An introduction to project management, Tata McGraw Hill Publications, 1995.

Computer usage: Nil

Professional component

General	-	0%
Basic Sciences	-	0%
Engineering sciences & Technical arts	-	0%
Professional subject	-	100%

Broad area: Marketing and financial management

Test Schedule

S. No.	Test	Tentative Date	Portions	Duration
1	Cycle Test-1	August 1 st week	Session 1 to 14	2 Periods
2	Cycle Test-2	September 2 nd week	Session 15 to 28	2 Periods
3	Model Test	October 1 st week	Session 1 to 45	3 Hrs
4	University Examination	TBA	All sessions / Units	3 Hrs.

Mapping of Instructional Objectives with Program Outcome

This subject covers basics of management ,marketing,finance,resource management in construction.	Correlates to program outcome		
	H	M	L
1. To learn about the types of business operations, Sole proprietorship partnership, Company, public and private sector enterprises	c	b	a
2 .To learn about Marketing – Marketing Segmentation, Positioning, Marketing Research, Marketing planning, Scope of financial management – Cost accounting Vs Financial accounting	b	c	e
3. To learn the Planning – Identification, Procurement, Schedule and Cost control	b,d	k	
4. Insight into Scope of objectives of HRM – Man power policy and planning – Recruitment and selection.	g	e	f
5.Insight into Planning, Scheduling and Resource analysis. Recording and operations project accounting, costing and finance		e	

H: high correlation, M: medium correlation, L: low correlation

Draft Lecture Schedule

Session	Topics	Problem solving (Yes/No)	Text / Chapter
UNIT I BASIC CONCEPTS			
1.	Types of business operations	No	[T1, R2]
2.	Sole proprietorship partnership	No	
3.	Company, public and private sector enterprises	No	
4.	Joint ventures	No	
5.	collaborations	No	
6.	Functions of Management	No	
7.	Principles of management	No	
8.	inventory control	No	
9.	L.P.P.E.R.T., CPM, etc	No	
UNIT II INTRODUCTION TO MARKETING AND FINANCIAL MANAGEMENT			

10.	Marketing..	No	[T1, & R3]
11.	Marketing Segmentation	No	
12.	Positioning	No	
13.	Marketing Research	No	
14.	Marketing planning	No	
15.	Scope of financial management	No	
16.	Cost accounting Vs Financial accounting	No	
17.	Appraisal of projects	No	
18.	investment decisions, concept of pay back	No	
UNIT III MATERIALS AND EQUIPMENT MANAGEMENT			
19.	Planning – Identification	No	[T1, & R3]
20.	Procurement,	No	
21.	Schedule and Cost control	No	
22.	Systems approach	No	
23.	resource management	No	
24.	ABC analysis	No	
25.	VED analysis	No	
26.	FSN analysis	No	
27.	vendor rating evaluation, buying versus leasing of equipment	No	
UNIT IV HUMAN RESOURCE MANAGEMENT			
28.	Man power policy and planning	No	[T1, & R3]
29.	Scope of objectives of HRM	No	
30.	Recruitment and selection. Training performance appiaisal.	No	
31.	Wage policy and compensation systems.	No	
32.	Company union relationship and collective bargaining	No	
33.	Accidents absenteeism	No	
34.	turn over	No	
35.	Grievances / conflicts	No	
36.	Identification and resolution	No	
37.	Case study	No	
UNIT V INTRODUCTION TO COMPUTER APPLICATION IN CONSTRUCTION MANAGEMENT			
38.	Planning	No	[T1, & R3]
39.	Scheduling	No	
40.	Resource analysis	No	
41.	Recording	No	
42.	operations project accounting	No	
43.	costing and finance	No	
44.	usage of project management software	No	
45.	Case study	No	

Teaching Strategies

The teaching in this course aims at establishing a good fundamental understanding of the areas covered using:

- Formal face-to-face lectures
- Tutorials, which allow for exercises in problem solving and allow time for students to resolve problems in understanding of lecture material.
- Laboratory sessions, which support the formal lecture material and also provide the student with practical construction, measurement and debugging skills.
- Small periodic quizzes, to enable you to assess your understanding of the concepts.

Evaluation Strategies

Cycle Test – I	-	5%
Cycle Test – II	-	5%
Model Test	-	5%
Assignment	-	5%
Attendance	-	10%
Final exam	-	70%

Prepared by: Mr. K.Venkatraman, Assistant Professor, Department of Civil

Dated :

Addendum

ABET Outcomes expected of graduates of B.Tech / Civil / program by the time that they graduate:

- a. An ability to apply knowledge of mathematics, science, and engineering
- b. An ability to design and conduct experiments, as well as to analyze and interpret data
- c. An ability to design a hardware and software system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability
- d. An ability to function on multidisciplinary teams
- e. An ability to identify, formulate, and solve engineering problems
- f. An understanding of professional and ethical responsibility
- g. An ability to communicate effectively
- h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
- i. A recognition of the need for, and an ability to engage in life-long learning
- j. A knowledge of contemporary issues
- k. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

Program Educational Objectives

PEO1: PREPARATION

Civil Engineering graduates will have knowledge to apply the fundamental principles for a successful profession and/or for higher education in Civil Engineering based on mathematical, scientific and engineering principles, to solve realistic and field problems that arise in engineering and non engineering sectors

PEO2: CORE COMPETENCE

Civil Engineering graduates will adapt to the modern engineering tools and construction methods for planning, design, execution and maintenance of works with sustainable development in their profession.

PEO3: PROFESSIONALISM

Civil Engineering Graduates will exhibit professionalism, ethical attitude, communication and managerial skills, successful team work in various private and government organizations both at the national and international level in their profession and adapt to current trends with lifelong learning.

PEO4: SKILL

Civil Engineering graduates will be trained for developing soft skills such as proficiency in many languages, technical communication, verbal, logical, analytical, comprehension, team building, inter personal relationship, group discussion and leadership skill to become a better professional.

PEO5: ETHICS

Civil Engineering graduates will be installed with ethical feeling, encouraged to make decisions that are safe and environmentally-responsible and also innovative for societal improvement.

Course Teacher	Signature
Mr. K.Venkatraman,	

Course Coordinator

HOD/CIVIL