



College: Engineering

Department: Civil

Course Title: Dam Engineering

Course No: CE510

Credit Hours: 3Hours

Semester: Second

### About The Course

Course Title: Dam Engineering

Class:410

Course No: CE510

Credit Hours: 3

Lecture Room: 410

Obligatory/ Optional: Optional

**Text Book:** Gravity Dam Design US Army corps of engineers

Theory of structures S.Ramamrutham R.N ARAYAN Dhanpat rai publishing company  
Sixth Edition1990

### The Instructor

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E-maile:

### Course Description

1. Types of Dams
2. Earth dams
3. Gravity dams
4. Concrete dams
5. Cantilever concrete dams
6. Buttress dams

### Course Objectives

1. Types of dams.
2. Analysis and Design earth dams.
3. Analysis and Design gravity dams.
4. Analysis and Design concrete dams.
5. Analysis and Design cantilever concrete dams.
6. Analysis and Design Buttress dams.

### Learning Outcome

**Making students aware of how language works to convey meaning as its basic function**

### Course Outline and Time schedule

Week	Course Outline
First week	Types of Dams, According to shape of design and materials.
2 <sup>nd</sup> week	Important of dams
3 <sup>rd</sup> week	Earth dams, advantages and disadvantages of earth dams
4 <sup>th</sup> week	Design of earth dams
5 <sup>th</sup> week	Materials used and soil to avoid on earth dams
6 <sup>th</sup> week	Estimated of volume of earth work and their capacities
7 <sup>th</sup> week	Estimated of volume of earth work and their capacities

8 <sup>th</sup> week	Materials used on gravity dams
9 <sup>th</sup> week	Methods of construction of concrete dams
10 <sup>th</sup> week	Analysis of concrete dams
11 <sup>th</sup> week	Design of concrete dams
12 <sup>th</sup> week	Reinforced concrete dams
13 <sup>th</sup> week	Analysis of cantilever reinforced concrete dams
14 <sup>th</sup> week	Design of cantilever reinforced concrete dams
15 <sup>th</sup> week	Buttress dams

### **Presentation methods and techniques**

Methods of teaching varied according to the type of text, student and situation. The following techniques are usually used:

- 1- Lecturing with active participations.
- 2- Problem solving.
- 3- Cooperative learning.
- 4- Discussion.
- 5- Learning by activities.
- 6- Connecting students with different sources of information

### **Sources of information and Instructional Aids**

For example: Computer ... power point ...etc.

- Transparencies

- Distance learning
- Library sources

### Assessment Strategy and its tools

The assigned syllabus is assessed and evaluated  
Through: feed back and the skills that are acquired by the students

The tools:

- 1- Diagnostic tests to identify the students level and areas of weakness
- 2- Formal (stage) evaluation
  - a) Class Participation
  - b) Ist Exam
  - c) 2nd Exam
  - d) Activity file

### Tool & Evaluation

Tests are permanent tools & assessment, in addition to the activity file which contains curricular and the co-curricular activities, research, report papers and the active participation of the student in the lecture.

The following table clarifies the organization of the assessment schedule:

Test	Date	Grade
First Exam		20
2 <sup>nd</sup> Exam		20
Activities & Participation	Students should be notified about their marks	20
Final Exam		40

## **Activities and Instructional Assignment**

- 1- Practical assignments to achieve the syllabus objectives.
- 2- .....

### **Regulations to maintain the teaching-Learning Process in the Lecture:**

- 1- Regular attendance.
- 2- Respect of commencement and ending of the lecture time.
- 3- Positive relationship between student and teacher.
- 4- Commitment to present assignments on time.
- 5- High commitment during the lecture to avoid any kind of disturbance and distortion.
- 6- High sense of trust and sincerity when referring to any piece of information and to mention the source.
- 7- The student who absents himself should submit an accepted excuse.
- 8- University relevant regulations should be applied in case the students behavior is not accepted.
- 9- Allowed Absence percentages is ( %).

## **Internet websites**

- 1.....
- 2.....
- 3.....

### **References :**

- 1.....
- 2.....
- 3.....

# Syllabus Classification

<b>Objectives</b>	<i>Learning outcome</i>	<i>Assessment tools</i>
1-		
2-		
3-		
4-		
5-		

