CE 461

Irrigation & Flood Control

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Objective of this course

This course contains fundamental information on irrigation and flood control. After completion of this course one should be able to design an irrigation project which includes water requirements, canal design and hydraulic structures for irrigation project. In addition one should be able to design hydraulic structures for flood protection also.

Syllabus

Importance of irrigation, Sources and Quality of irrigation water, Soil Water Relationship, Consumptive Use and Estimation of Irrigation, Methods of Irrigation, Water Requirements, Design of Irrigation, Canal System, Irrigation Structures, Irrigation Pumps, Problems of Irrigation Land. Flood and its Control

Reference Books

- Irrigation Engineering & Hydraulic Structures
  ----- *S K Garg*
- Irrigation Development and Management in Bangladesh
  ----- *M A Sattar*
- Irrigation Engineering
  ----- *N N Basak*
- Irrigation Principles and Practices
  ----- *Vaughn E. Hansen & W. Israelsen*
- Irrigation (Theory & Practice)
  ----- *A M Micheal (2nd Edition)*
- Irrigation and Water Management
  ----- *Dilip Kumar Majumder*
- Irrigation Engineering
  ----- S. K. Mazumder
- Irrigation Engineering
  ----- *R. K. Sharma & T. K. Sharma*

Assessment

Class Grading - 30%

(Attendance - 10%, Class test -20%)

Mid Term Examination - 20%

Final Examination - 50%

Lecture Plan

Chapter	Name of Chapters	No. of Lectures
1	Methods of Irrigation	3
2	Sources & quality of irrigation water	2
3	Consumptive use & estimation of water requirements of crops	3
4	Soil water relationship	2
5	Physical & economical justification for canal	3
	Midterm Examination	
6	System of irrigation canal	2
7	Canal design	3
8	Irrigation structures – 1	2
9	Irrigation structures – 2	4
10	Spillway & irrigation pumps	3
	Final Examination	

Thank You