CB533 Environmental Control&Energy In Build.

COURSE INFORMATION

Prerequisites	Academic Year & Level		Teaching Methods			Credit Hrs.
	Year	Semester	Lecture	Tutorial	Laboratory	
CB431	5	10	2	2	0	3

COURSE AIM

The course aims at introducing the student to the means of energy conservation in buildings, the impact of climate and environment on buildings, and the impact of buildings on microclimate and environment, the different methods of passive heating and cool

COURSE WEEKLY CONTENTS

1 Sustainable development and renewable energy (1,2).
2 Sustainable development and renewable energy (1,2).continued
3 Air quality standard and public health considerations.
4 Thermal dynamics of buildings
5 Heating load calculations.
6 Cooling load calculations (1,2).
7 Cooling load calculations (1,2). Continued + Midterm Exam
8 Principles of green building design.
9 Solar control.
10 Wind control
11 Passive heating systems (1,2).
12 Passive heating systems (1,2). Continued
13 Passive cooling systems (1,2).
14 Passive cooling systems (1,2).continued
15 Economics for decision working.

STUDENT GRADING & ASSESSMENT

Weeks	Exams	Assign.	Quizzes	Reports	Present.	Lab.	Total
1 to 7	20 Midterm	← 10 MARKS To be freely distributed among possible assessments →					30
8 to 12	← 20 MARKS →						20
13 to 15	← 10 MARKS →						10
16 or 17	40 Final						40
Total	Exams	Assign.	Quizzes	Reports	Present.	Lab.	100

REFERENCES

Textbook Control Systems, Bradshaw V., John Wiley, New York, 3rd Edition, 2006.

Other Control Systems V. Bradshaw, John Wiley, New York, Latest Edition.
Design and Construction Handbook, MERRITT F.S., RICKETTS J.T., McGraw Hill, Inc, New York, Latest Edition.