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Department of Building Engineering	
Computer Aided Illumination Design (68532)	
Total Credits	**3**
major elective	
Prerequisites	P1 : CAD Applications for Buildings (68320)

Course Contents

Introduction to lighting analysis and lighting design . Daylight analysis (the use of ECOTECT program for the analysis of daylight, daylight factor, solar tools, weather tools, shading, and daylight design). Artificial lighting (the use of DIALux program for the analysis of artificial lighting, lighting selection, lighting calculation, lighting design and lighting analysis)

	Intended Learning Outcomes (ILO's)	Student Outcomes (SO's)	Contribution
1	An ability to design a building, or process to meet desired needs within realistic constraints such as environmental, social, ethical, health and safety, and sustainability	C	40 %
2	An ability to apply knowledge of mathematics, science and engineering	A	20 %
3	An ability to identify, formulate, and solve architectural engineering problems	E	10 %
4	The broad education necessary to understand the impact of architectural engineering solutions in a global, economic, environmental, and societal context	H	10 %
5	An ability to use the techniques, skills, and modern architectural engineering tools necessary for architectural engineering practice	K	20 %

Textbook and/ or Refrences

ECOTECT, Autodesk manuals, Ecotect.com, www.Squ1.org, DIALux Manuals, www.dial.de

Assessment Criteria	Percent (%)
Quizzes	10 %
Projects	35 %
Laboratory Work	30 %
Final Exam	25 %

Course Plan

Week	Topic
1	Introduction
2-5	Daylight analysis
6-10	Artificial lighting design
11-14	Complex analysis for lighting
15	Project
16	Final exam