

NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI

Department of Architecture

This course outline template acts as a guide for writing your course outline. As every course is different, please feel free to amend the template/ format to suit your requirements.

COURSE OUTLINE TEMPLATE			
Course Title	AR 715 Environmental Lighting		
Course Code	AR715	No. of Credits	2
Department	Architecture	Faculty	K.Premkumar
Pre-requisites Course Code	Nil-----		
Course Coordinator(s) (if, applicable)	Nil-----		
Other Course Teacher(s)/Tutor(s) E-mail		Telephone No.	
Course Type	<input type="checkbox"/> Core course <input checked="" type="checkbox"/> Elective course		

COURSE OVERVIEW

This course deals with the environment and lighting aspects at four levels : i) the basic lighting design and effects of light on users: orientation, form and structure ii) Interior lighting design requirements for offices, factories, museums and galleries etc., and exterior lighting building facades, landscape lighting. iii) Emergency lighting , integration of daylighting and artificial lighting and economics of supplementary lighting.iv) Cost-effective daylighting design estimating energy use and saving strategies.

COURSE OBJECTIVES

- To understand the significance of this course in environmental lighting design.
- To acquire knowledge in addressing daylighting requirements for interior and exterior spaces.
- To develop strategies based on cost-effective daylighting design and energy efficiency in lighting design.
- To extend the scope of application of this knowledge in wide range of environmental settings.

COURSE OUTCOMES (CO)	
Course Outcomes	Aligned Programme Outcomes (PO)
1.To understand the importance of environmental lighting in design. 2.Capacity building in addressing the lighting requirements in exterior and interior spaces. 3. To identify the equipment and lighting system design with the understanding of economics of supplementary lighting. 4. To motivate for cost- effective daylighting design and energy efficiency in lighting the environment.	To emphasis the significance of environmental lighting in the context for design. To get integrated with environmental lighting design for exterior and interior spaces. To lay foundation for energy efficiency in environmental lighting design.

COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week	Topic	Mode of Delivery
1.	1 st – 4 th	Basics on the basic lighting design and effects of light on users: orientation, form and structure	Classroom inputs, discussion, seminar presentation, assignments observation of environmental lighting display, everyday settings.
2.	5 th -8 th	Interior lighting design requirements for offices, factories, museums and galleries etc., and exterior lighting buidling facades, landscape lighting.	Classroom inputs, discussion, seminar presentation, assignments study of environmental lighting display, everyday settings.
3.	9 th – 12 th	Emergency lighting , integration of daylighting and artificial lighting and economics of supplementary lighting.	Classroom inputs, discussion, seminar presentation, assignments observation of environmental lighting display, everyday settings.
4.	13 th – 16 th	Cost-effective daylighting design estimating energy use and saving strategies.	Classroom inputs, discussion, seminar presentation, assignments analysis of environmental lighting display, everyday settings.

COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1.	Cycle test -1	6 th week	1 hour	20 marks.
2.	Cycle test -2	14 th week	1 hour	20 marks.
3.	End semester examination	End of 16 th week	3 hours	50 marks
4.	1 st segment assignment	Before 1 st cycle test	2 sets	For 20 marks each
5.	2 nd segment assignment	After 1 st cycle test	2 sets	For 20 marks each
6.	3 rd segment assignment	Before cycle test – 2	2 sets	For 20 marks each
7.	4 th segment assignment	After cycle test - 2	2 sets	For 20 marks each Total marks will be converted to 10 marks

ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc

**Journals: 1) International Journal of environmental lighting.
2) Environment and behavior – sage publications**

REFERENCES:

1. Hopkinson,R.G., "Architectural Physics – Lighting", HMS Office, London, 1963
2. Millet MEBietta,S.,"Light Revealing Architecture", Van Nostrand Reinhold, New York, 1996.
3. York, 1996.
4. Sorcar Prafulla, C., "Architectural Lighting for Commercial Interiors", John Wiley & Sons, New York, 1987.
5. Michael Lov," Light: The Shape of Space", Van Nostrand Reinhold, London, 1995.
6. Pritchard,D.C., "Lighting", Longman Scientific & Technical, Harlow, 1995
7. Tregenza Peter & Loe David, "The Design of Lighting", E & FN Spon, London, 1998.

COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)

End of each assessment , the feedback will be collected from students' performance in the assessment as well through interaction and feedback questions

COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)

Attendance : Minimum Required 75%

Plagiarism will be viewed seriously as per institute rules.

ADDITIONAL COURSE INFORMATION

The Course Coordinator is available for consultation with prior appointment. Queries may also be emailed to the Course Coordinator directly at prem@nitt.edu

FOR SENATE'S CONSIDERATION

Request the Senate to consider - Minimum Pass Mark 40

Course Faculty _____



CC-Chairperson _____



HOD _____



9/11/15