

**NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI**

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.

<b>COURSE OUTLINE TEMPLATE</b>			
Course Title	LIGHTING DESIGN		
Course Code	AR 706	No. of Credits	3
Department	Architecture	Faculty	Dr.G.Subbaiyan
Pre-requisites Course Code	Nil		
Course Coordinator(s) (if, applicable)	NA		
Other Course Teacher(s)/Tutor(s) E-mail	subbaiah@nitt.edu	Telephone No.	0431-2503557
Course Type	<input checked="" type="checkbox"/> Core course <input type="checkbox"/> Elective-course		
<b>COURSE OVERVIEW</b>			
<p>This course focus on day lighting concepts, day lighting analysis and design of fenestration for day lighting of interior spaces, articial lighting design for interior spaces, permanent supplementary artificial lighting design and the software used for lighting design of buildings .</p>			
<b>COURSE OBJECTIVES</b>			
<ul style="list-style-type: none"> <li>i. To make an awareness about the benfits of day lighting in buildings.</li> <li>ii. To understand about different daylighting concepts, day lighting analysis and design.</li> <li>iii. To be knowledgeable about the salient features of various Artificial light sources and luminaires.</li> <li>iv. To understand the Artificial lighting design methods.</li> <li>v. To get introduced to the software used for lighting design of buildings.</li> </ul>			
<b>COURSE OUTCOMES (CO)</b>			
Course Outcomes	Aligned Programme Outcomes (PO)		
<ul style="list-style-type: none"> <li>i. Assessment of day lighting availability in existing buildings (Analysis).</li> <li>ii. Design of Fenestration for Day lighting of interior spaces.</li> <li>iii. Artificial lighting design for interior spaces of different types of buildings.</li> </ul>			

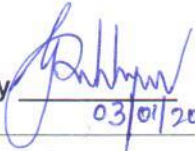
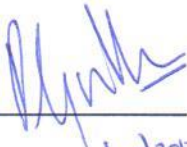

iv. Integration of Day lighting and Artificial lighting – Permanent Supplementary Artificial Lighting Design.	
v. Make acquainted about the software used for lighting design of buildings.	

#### COURSE TEACHING AND LEARNING ACTIVITIES

S.No.	Week	Topic	Mode of Delivery
1	1 <sup>st</sup>	Lighting Fundamentals - Light and Optics, Measurement of Light, Vision and Perception, Color	PPT/ Lecture
2	2 <sup>nd</sup>	Quality of the Visual Environment, Lighting requirements of different types of buildings	PPT/ Lecture/ Discussion
3	3 <sup>rd</sup> & 4 <sup>th</sup>	Day Lighting – Introduction and Concepts	PPT/ Lecture
4	5 <sup>th</sup> & 6 <sup>th</sup>	Day lighting – Analysis and Design	PPT/ Lecture/ Tutorials
5	7 <sup>th</sup>	Electrical light sources	PPT/ Lecture
6	8 <sup>th</sup>	Luminaires and Interior lighting systems.	PPT/ Lecture
7	9 <sup>th</sup>	Artificial lighting design – Lumen Method	PPT/ Lecture/ Tutorials
8	10 <sup>th</sup>	Artificial lighting design – Point by point method	PPT/ Lecture/ Tutorials
9	11 <sup>th</sup>	Supplementary Artificial Lighting Design	PPT/ Lecture
10	12 <sup>th</sup> & 13 <sup>th</sup>	Lighting – Economics, Control and Maintenance	PPT/ Lecture
11	14 <sup>th</sup> & 15 <sup>th</sup>	Lighting design - software	Lecture / Tutorials
12	16 <sup>th</sup>	Conclusion and Feedback	PPT

#### COURSE ASSESSMENT METHODS

S.No.	Mode of Assessment	Week/Date	Duration	% Weightage
1	Assignment/ Tutorial	6 <sup>th</sup> week	10 days	10%
2	Test	8 <sup>th</sup> week	1 hr.	15%
3	Assignment/ Tutorial	10 <sup>th</sup> week	10 days	20%
4	Assignment/ Tutorial	14 <sup>th</sup> & 15 <sup>th</sup> week	Class hours	15%
5	End-semester examination	Last week – April 2017	3 hours	40%

<b>ESSENTIAL READINGS : Textbooks, reference books Website addresses, journals, etc</b>		
i.	Benjamin Evans, "Daylight in Architecture", McGraw Hill Book Co., New York, 1981	
ii.	Pritchard, D.C., "Lighting", Longman Scientific & Technical, Harlow, 1995	
iii.	MEBc Schiler, "Simplified Design of Building Lighting", John Wiley & Sons, Inc., New York, 1992	
iv.	Hopkinson, R. G., "Architectural Physics – Lighting", HMS Office, London, 1963	
v.	Tregenza Peter & Loe David, "The Design of Lighting", E & FN Spon, London, 1998.	
<b>COURSE EXIT SURVEY (mention the ways in which the feedback about the course is assessed and indicate the attainment also)</b>		
i.	Feedback survey about course content and suggestions for any improvement/ modification - online	
ii.	Assessment of the knowledge the students have gained through this subject - online	
iii.	Feedback regarding the teaching-learning process - online	
<b>COURSE POLICY (including plagiarism, academic honesty, attendance, etc.)</b>		
i.	For a student to secure a minimum of E grade he/ she has to secure a minimum of 40% marks overall and appearance in end-semester examination compulsory.	
ii.	The minimum attendance requirement to be eligible for appearing in the final semester examination is 75%.	
iii.	If any student is absent on the day of tutorial session, he/ she shall forfeit the marks for that particular tutorial exercise.	
iv.	If any candidate is absent in the test due to genuine reasons, he/ she can appear for retest.	
v.	Assignments are required to be prepared independently by each of the candidate. If any student submits assignments directly copied from other students / books/ journals (cut and paste) he/ she shall forfeit the marks for that particular assignment.	
<b>ADDITIONAL COURSE INFORMATION</b>		
eg.: The Course Coordinator is available for consultation at times that are displayed on the coordinator's office notice board. Queries may also be emailed to the Course Coordinator directly at -----		
<b>The faculty member is available for consultation during working hours on all working days. The students can also e-mail their queries to subbaiah@nitt.edu.</b>		
<b>FOR SENATE'S CONSIDERATION</b>		
Course Faculty	CC-Chairperson	HOD
 03/01/2017	 03/01/2017	 31/11/17