



**University of Tehran**  
**School of Electrical and Computer Engineering**

<b>Course:</b>	<b>8101201 – Lighting Engineering</b>		
<b>Course type:</b>	Elective	EE, CE, IT	Credit: 3
<b>Level:</b>	Undergraduate		
<b>Co-requisite(s):</b>			
<b>Prerequisite(s):</b>			
<b>Prerequisite by topic:</b>			
<b>Textbook(s):</b>	[1] R. H. Simons, A. R. Bean, <i>Lighting Engineering Applied Calculations</i> , Architectural Press, 2001. [2] IESNA <i>Lighting Handbook</i> , Illuminating Engineering Society of North America, 2000.		
<b>Coordinator:</b>	A. A. Shayegani Akmal		
<b>Goals:</b>	The goal of the course is to To minimize the consumption of electrical energy in lighting projects. To design light comfort lighting project. To measure the quantities of lighting parameters. To know minimum standard requirements of lighting projects		
<b>Outcome:</b>	Upon successful completion of the course, students will be able <ol style="list-style-type: none"> <li>1. To describe fundamentals of light and vision.</li> <li>2. To know artificial light sources.</li> <li>3. To use the luminaires.</li> <li>4. To design lighting for different places.</li> </ol>		
<b>Topics:</b>	<ol style="list-style-type: none"> <li>1- Light and vision</li> <li>2- Light sources</li> <li>3- Measurement of light sources parameters</li> <li>4- Luminaires - light distribution</li> <li>5- Lighting parameters for different places</li> <li>6- Road lighting and <i>195 document</i></li> <li>7- Road lighting measurement</li> <li>8- Lighting controls</li> </ol>		

<b>Computer usage:</b>	Lighting design software such as DiaLux								
<b>Assignments:</b>	1 Computer assignment, 2 design and 1 research.								
<b>Projects:</b>	Lighting design								
<b>Grading:</b>	<table> <tr> <td>Assignments:</td> <td>40%</td> </tr> <tr> <td>Quiz:</td> <td>10%</td> </tr> <tr> <td>Midterm exams:</td> <td>-</td> </tr> <tr> <td>Final exam:</td> <td>50%</td> </tr> </table>	Assignments:	40%	Quiz:	10%	Midterm exams:	-	Final exam:	50%
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Midterm exams:	-								
Final exam:	50%								
<b>Further readings:</b>									
<b>Prepared by:</b>	Amir Abbas Shayegani Akmal								
<b>Date:</b>	May 1, 2011								

\*EE: Electrical Engineering CE: Computer Engineering IT: Information Technology