

Course Name: Special Topics in Architecture: NO. 0902738

Day lighting in Architecture

Aims:

The aims of this course are to draw attention of the students to the important of Day Lighting in human life in general and in building design in particular; and to design buildings using natural lightings to light the interiors. Light can also be used for other purposes: to produce electricity, to heat walls and surfaces during cold periods, to add shade and shadow and change the images of buildings during day time.

There are other advantages of light where the designer can use them and produce buildings with natural images.

The course will include the following research topics:

- 1- Natural of daylight
- 2- Outside lighting in different zones
- 3- Passive lighting in buildings
- 4- Lighting and human behavior
- 5- Active lighting design in buildings: Heating, producing electricity, modern applications.
- 6- Glow
- 7- Added values of lighting in urban design
- 8- Other subjects

The course will have several lectures with respect to lightings and day lightings in buildings.

Each student should make an assignment in one of the previous subjects, and may produce a paper which can be published in local or international Journals.

Any student who can publish a paper or send to publication will have a full mark in the course and will be appreciated by the department and the university.

It is possible also, to submit an McS proposal outline for his/here dissertation.

References:

Books:

*R. Hammad 2006” Day lighting and Artificial Lighting Technicality”, Jordan University Press, in Arabic.

*Gregg, D. 1997 "Day Lighting Performance and Design", John Wiley & sons.

* Fuller Moor, 1990, "Concept & Practice of Architectural Day lighting" Van Nostrand Reinhold com. N. Y

*David, E. & Olgay, V. 2003, "Architectural Lighting" McGraw-Hill.

Research Papers:

Rizeq Hammad