Course Specifications of:

Technical Installations and Security Systems in Heritage Buildings

Program(s) on which the course is given: M. sc - Maintenance and Restoration

Compulsory or Elective element of program: Elective

Department offering the program: Architecture

Academic year / Level: Master of science year 2013 / 2012

Date of specification approval: 23-1-2012

1. Basic Information

Title: Technical Installations and Security Systems in Heritage Buildings Code: Arc 629

Credit Hours: 3 Lecture: 3 Practical:

Semester work: 120 Final Exam:90 Practical:90 Total: 300

1. Professional Information

1- Overall aims of course:

By the end of the course the student will be able to

* Analyze the Technical Installations and Security Systems in Heritage Buildings.
* Produce professional researcher to work in the field of Heritage Buildings.
* Evaluate the Technical Installations and Security Systems in Heritage Buildings used in restoration projects.
* How to manage the Technical Installations and Security Systems in Heritage Buildings.

 2- Intended learning outcomes of course (ILOs):

1. **Knowledge and understanding**

2.1.1 Identify theories, fundamentals and specialized knowledge in technical installations and security systems in heritage buildings as well as in related disciplines.

2.1.6 Define the basics and the ethics of scientific research

2.1.8 recognize The need to critically review precedents relevant to the function, organization and technological strategy of proposals; the need to appraise and prepare building briefs of diverse scales and types, to define client and user requirements and their appropriateness to site and context

1. **Intellectual skills**

2.2.3 Link different knowledge sources to solve problems.

1. **Professional and practical skills**

2.3.1 apply basic professional and modern skills in the area of technical installations and security systems in heritage buildings **.**

**General and transferable skills**

2.4.1 Experiment Communicate effectively using different means.

2.4.5 Set basis and standards to assess the performance of others.

2.4.7 Manage time effectively.

3- Contents

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| Topic No. | Topic | No. of weeks | Total no. of hours |
| 1 | Introduction | 1 | 3 |
| 2 | Systems of lighting and monitoring against thievery and fire in Heritage Buildings | 1 | 3 |
| 3 | Systems of lighting and monitoring against thievery and fire in Heritage Buildings | 1 | 3 |
| 4 | The use of Technical installations within Heritage Buildings conservation Stipulations | 1 | 3 |
| 5 | The use of Technical installations within Heritage Buildings conservation Stipulations | 1 | 3 |
| 6 | The use of Technical installations within Heritage Buildings conservation Stipulations | 1 | 3 |
| 7 | Effect of artificial light on colors and ornaments | 1 | 3 |
| 8 | Midterm exam | 1 | 3 |
| 9 | Effect of artificial light on colors and ornaments | 1 | 3 |
| 10 | Case studies  | 1 | 3 |
| 11 | Case studies  | 1 | 3 |
| 12 | Project follow up | 1 | 3 |
| 13 | Project follow up  | 1 | 3 |
| 14 | Project follow up  | 1 | 3 |
| 15 | Submission and discussions  | 1 | 3 |
| 16 | Final exam | 1 | 3 |
|  TOTAL | 16 | 48 |

4- Course Matrix

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| ILO’s code number | Teaching/learning methods and strategies | Assessment methods and strategies |
| 2.1.1 / 2.1.6 / 2.1.8  |

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| Acquisition of core knowledge and understanding is achieved mainly through lectures, seminars, reading, project work and independent study cases |

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| Assessment will be through individual coursework assignments, oral arranged discussions about particular issues and criticism of design research. In addition to given final examinations.  |

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| 2.2.3 |

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| Analysis and problem solving skills are developed through tutorials, and projects’ design discussions  |

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| Design and research skills are assessed through student proposals for creative design concepts reflecting particular visionary creative ideas, and provide objec  |

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| 2.3.1 |

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| Projects demonstrations, practical work, practical based projects in selected particular sites, and visits for site analysis.  |

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| Practical skills are assessed through projects prepared concept designs and individual coursework assignments |

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| 2.4.1 / 2.4.5 / 2.4.7  |

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| Presentations of projects as well as seminars  |

 | Project presentation |

5- Assessment schedule

Assessment 1 Assignments on week’s 7-9-11-14

Assessment 2 Midterm exam on week 8

Assessment 3 Oral exam on week 15

Assessment 4 Final exam on week 16

6- Weighting of assessments

30% Home assignments

10% Midterm exam

30% Oral examination

30% Final-term examination

100% Total

7- List of References

* Bernard M Filden, **Conservation of Historic Buildings**, third edition 2004.
* Mendes Zanchetti, Silvio; Jokilehto, Jukka .( 1997), "**Values and urban conservation planning: some reflections on principles and definitions**" . Journal of architectural conservation
* Larkham, Peter J. **(**1990), "**Conservation and the management of historical townscapes**". London: Leicester University Press.
* Appleyard, Donald.**(**1979),**The Conservation of European Cities**. United States : MIT Press.
* Mary Mendell,(1994), **t**[**he Ecological City: Preserving and Restoring Urban Biodiversity‏**](http://www.google.com/books?hl=ar&lr=&id=D7XK90pBeyYC&oi=fnd&pg=PA1&dq=restoring+preserving&ots=vQ0Rjv8o68&sig=AubpmdzLKnS5Mc9j1EArw1hRer4)**.** USA: The University of Massachusetts Press.

8- Facilities required for teaching and learning

Lecture room equipped with overhead projector

Presentation board, computer and data show

Course coordinator: **Prof.Dr. Khaled Abd El Hady.**

Course instructor: **Prof.Dr. Khaled Abd El Hady.**

Date 23 / 1 / 2012