1. **Basic Information**

**Course Title:**Environmental Assessment **Code**: CVE 615

**Lecture:** 3 Hour **Tutorial**: ---- **Practical**: ---- **Total:** 3 Hour

**Program on which the course is given:** Post Graduate M.Sc. / Sanitary and Environmental Engineering

**Major or minor element of program:**Compulsory

**Department offering the program:** Civil Engineering

**Department offering the course:** Civil Engineering

**Academic year / level:** 2014-2015/M.Sc.

**Date of specifications approval:** 2012

**B- Professional Information**

1. **Overall aims of course**

**1-**Master scientific, technical and commercial understanding of Sanitary and Environmental Engineering issues and practice.

2-Master of the nature of Sanitary and Environmental Engineering through the integration of knowledge from water and wastewater engineering.

3-Apply engineering theory and practice the management of Sanitary and Environmental Engineering challenges, through the development of new skills at a high level.

4-Apply the principles and activities involved in the day to day management of engineering business units, typical of those within which Sanitary and Environmental Engineering is practiced..

1. **Intended Learning outcomes of Course (ILOs)**

By the end of the course the students will be able to:

1. **Knowledge and Understanding:**

a.1layout the essential features of environmental impact assessment.(A.3)

a.2 Recap the ethical principles of professional practices in environmental impact assessment.(A.4)

a.3 Pinpoint the importance of quality in the framework of environmental impact assessment.(A.5)

a.4Understand the concept of scientific research and how ethics apply to it. (A.6)

1. **Intellectual Skills**

b.1Enhance technical and academic writing skills. (B.4)

b.2 Acquire the skill of decision making in different professional situations in environmental impact assessment. (B.7)

1. **Professional and Practical Skills**
2. **General and Transferable Skills**

d.1Obtain the needed knowledge from various sources. (D.4)

d.2 Determine the standards that will be used to assess the performance of others. (D.5)

d.3 Work in a group and Lead a team in familiar professional contexts. (D.6)

1. **Contents`**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No** | **Topic** | **Credit hours** | **ILOs** | **Teaching / learning methods and strategies** | **Assessment method** |
| 1 | pollution | 3 | a.1, a.2, b.1, b.2 | Lectures |  |
| 2 | Background to EIA | 3 | a.1, a.2, b.1, b.2 | Lectures |  |
| 3 | proposal | 3 | a.1, a.4, b.1, b.2 | Lectures | Assignments. |
| 4 | classification | 3 | a.1, b.1, b.2 | Lectures |  |
| 5 | Screening | 3 | a.1, a.2, a.3, a.4, b.1, b.2 | Lectures |  |
| 6 | Scoping | 3 | a.1, a.2, a.3, a.4, | Lectures |  |
| 7 | Impact Analysis | 3 | a.1, a.2, a.3, a.4, b.1, b.2 | Lectures | Assignments. |
| 8 | Mid-term Exam | 3 |  |  | Mid-term Exam |
| 9 | Mitigation | 3 | a.1, a.2, a.3, a.4, b.1, b.2 | Lectures |  |
| 10 | Environmental Statement | 3 | a.1, a.2, a.3, a.4, b.1, b.2 | Lectures | Assignments. |
| 11 | Decision Making | 3 | a.1, a.2, a.3, a.4, | Lectures |  |
| 12 | Follow Up | 3 | a.1, a.2, a.3, a.4, b.1, b.2, d.1, d.3 | Lectures, case study | Assignments. |
| 13 | Guidelines for the eia  Report | 3 | b.1, b.2, d.1, d.3 | Lectures, case study |  |
| 14 | Non- technical or executive  Summary | 3 | a.1, a.2, a.3, a.4, b.1, b.2, d.1, d.3 | Lectures, case study | Report |
| 15 | Final Exam | 3 |  |  | Final Exam |

1. **Teaching and Learning Methods**

\_\_\_√\_\_ Lectures

\_\_\_\_\_ Practical training / laboratory

\_\_\_\_\_ Seminar / workshop

\_\_\_\_\_ Class activity

\_\_\_√\_\_Case study

\_\_\_√\_\_Assignments / homework

Other :\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Student Assessment Methods**

\_\_\_\_√\_\_\_\_\_ four Assignments to assess \_\_\_\_\_\_ knowledge, intellectual

\_\_\_\_\_\_\_\_\_ Quiz to assess \_\_\_\_\_\_ knowledge, intellectual

\_\_\_\_\_\_\_\_ Mid-year exam to assess \_\_\_\_\_\_ knowledge, intellectual

\_\_\_\_√\_\_\_ Report to assess \_\_\_\_\_\_ knowledge, intellectual

\_\_\_\_√\_\_\_\_\_ Final exam to assess \_\_\_\_\_\_ knowledge, intellectual

Other:\_\_\_\_\_\_\_\_\_\_to assess \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. **Assessment schedule**

Assessment 1 Assignments on weeks 3, 7, 10, 12

Assessment 2 Quizzes on weeks

Assessment 3 Mid-term exam on week 8

Assessment 4 Report on week 14

Assessment 5 Final exam on week 15

Other:------------------

1. **Weighting of Assessments**

Mid- Term Examination 15%

Final- Term Examination 67%

Report 10%

Practical Examination 00%

Semester Work 08%

Other 00%

Total 100%

1. **List of References**
   1. **Course Notes**

* Course notes prepared by instructor.
  1. **Essential Books (Text Books)**
* The Egyptian Code of Water and Wastewater Treatment Plants.
  1. **Recommended Books**
* Farag, M.A., Sanitary Engineering Encyclopedia, ISBN 977- 5758537-8.
* Metcalf & Eddy, Wastewater Engineering Treatment and Reuse, 3rd edition (ISBN 0-07-100824-1).
* Terence J. McGhee, Water Supply and Sewerage, (ISBN 0-07-100873-3).
  1. **Periodicals Web sites, etc**
* Science Direct
* American society of civil engineering journal

1. **Facilities Required for Teaching and learning**

* Lecture room equipped with computer and data show

1. **Matrix of course aims and ILO’s**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Course aim* | **a.1** | **a.2** | **a.3** | **a.4** | **a.5** | **a.6** | **b.1** | **b.2** | **b.3** | **b.4** | **b.5** | **b.6** | **b.7** | **c.1** | **c.2** | **d.1** | **d.2** | **d.3** | **d.4** | **d.5** | **d.6** | **d.7** | **d.8** |
| 1 | ● | ● | ● | ● |  |  |  | ● |  |  |  |  |  |  |  | ● |  |  |  |  |  |  |  |
| 2 |  | ● |  | ● |  |  | ● | ● |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 3 |  |  | ● |  |  |  | ● | ● |  |  |  |  |  |  |  | ● |  | ● |  |  |  |  |  |
| 4 | ● | ● |  | ● |  |  |  |  |  |  |  |  |  |  |  |  | ● | ● |  |  |  |  |  |

**Course coordinator:** Associate Prof. Dr. Badr El Din Hegazy

**Course instructor:** Dr. Rehab El Hefny

**Head of department:** Prof. Dr.Ahmed abd El Fatah **Date: 1 / 8 / 2015**