

## Faculty of Engineering & Technology

### Environmental Sciences

#### Information :

**Course Code :** ENV 101

**Level :** Undergraduate

**Course Hours :** 2.00- Hours

**Department :** University Requirements

#### Area Of Study :

Upon completion of this course, students will be able to:

Apply the basic concepts, terminology, principles and theories in area of environmental science.

Demonstrate professional responsibilities, ethical, cultural and societal aspects in area of environmental science.

Deal with the individual, social, environmental, organizational and economic implications of the application of environmental science.

Use effectively communication skills to emphasize research methodology, to encourage critical thinking, and to convey a scientific as well as systematic approach to environmental awareness.

#### Description :

This course helps the students to develop knowledge required to critically evaluate environmental problems and issues, and provide applied solutions. The course is decidedly interdisciplinary in nature, focusing on the underlying natural processes relating to the environment, understanding and employing the scientific methods. The course includes studying natural resources, the relationship between environmental issues and society, as well as sustainable development. The course also perceives how respective official and nonofficial institutions deal with these issues and what sort of impact they have

#### Course outcomes :

##### **a.Knowledge and Understanding: :**

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|-----|--|
| 1 - | Discuss principles of managements and economics relevant to environmental science. |
| 2 - | a1. Define fundamental concepts and theories related to environmental science.     |

##### **b.Intellectual Skills: :**

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|-----|--|
| 1 - | Criticize research paper in environmental science area.                                    |
| 2 - | Aware with professional, moral, legal and ethical issues related to environmental science. |
| 3 - | Identify measurement criteria for different systems deployment in environmental science.   |

##### **c.Professional and Practical Skills: :**

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|-----|---|
| 1 - | Evaluate the risks and safety aspects related to environmental science.                         |
| 2 - | Acquire a set of fundamental research skills from different resources of environmental science. |

##### **d.General and Transferable Skills: :**

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|-----|---|
| 1 - | Apply communication skills in presentations and report writing using various methods and tools. |
| 2 - | Work in a team to develop the requirement documentation about environmental science             |
| 3 - | Exploit a range of learning resources about environmental science.                              |

### **Course Topic And Contents :**

<b>Topic</b>	<b>No. of hours</b>	<b>Lecture</b>	<b>Tutorial / Practical</b>
Introduction to environmental science	2	1	0
Natural resources management. Ecological footprint, population and consumption as well as sustainability	2	1	0
Air pollution	2	1	0
Temperature inversion. Indoor air pollution. Air pollution control, solutions to acid rain.	2	1	0
Climate change. Troposphere, stratosphere. The greenhouse effect. Ozone layer decay. Future climate prediction	2	1	0
Water resources	2	1	0
Water pollution and water quality. Eutrofication, ground water	2	1	0
Solids and hazardous waste. Resources, waste disposal methods	2	1	0
Environmental legislations	2	1	0
Energy use and conversion	2	1	0
Land reclamation	2	1	0
Project presentation	2	1	0

### **Teaching And Learning Methodologies :**

Interactive Lectures including discussion

Self-Study (Project / Reading Materials / Presentations)

Case Studies

### **Course Assessment :**

<b>Methods of assessment</b>	<b>Relative weight %</b>	<b>Week No</b>	<b>Assess What</b>
Final Exam	40.00		
Individual Projects	10.00		
Midterm Exam (s)	30.00		
Others (Participation)	15.00		
Presentations	5.00		
Quizzes	10.00		

### **Course Notes :**

Course Notes are available with all the slides used in lectures in electronic form on Learning Management System (Moodle)

### **Web Sites :**

[www.ekb.eg](http://www.ekb.eg)

