**EASTERN MEDITERRANEAN UNIVERSITY**

**SCHOOL OF COMPUTING AND TECHNOLOGY**

**INFORMATION TECHNOLOGY**

**ITEC 211 - COURSE OUTLINE**

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| **Academic Year / Semester** | 2016-2017/ Summer |
| **Course Code and Title** | ITEC 211- Renewable Energy Resources and Environment |
| **Course Type** | University Elective Physical/Natural sciences (UE/PN) |
| **Lecturer/s** | Prof. Dr. Mustafa ILKAN  Room no: CT204 Tel no: 1245 |
| **Credit Value** | (3,0) 3 |
| **Prerequisites** | None |
| **Corequisites** | None |
| **Duration of course** | One semester |
| **Course assistant** | Kotoua Selira  Room no: CTL220 Tel no: 1673 |
| **Web link** |  |

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| **Catalogue Description** |
| A general information about renewable energy resources such as solar, wind, biomass, fuel cells tidal, wave. Environmental pollution and problems due to pollutions. |

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| **Aims and Objectives** |
| The main aim of this course is to give an awareness of environmental problems to students and disadvantages of fuel based electricity generation systems. |

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| **General learning outcomes (Competences)** |
| * On successful completion of this course, all students will ; * Have developed knowledge and understanding of renewable energy resources and their benefits. * Have understanding of how overcome the atmospheric pollution by having alternative energy resources. * Gain an awareness of environmental problems and how human lives are affected. * On successful completion of this course, all students will have developed their appreciation of and respect for values and attitudes regarding the issues of: * team working * sharing responsibilities |

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| **Grading Criteria** |
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| **Relationship with other courses** |
| None |
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| **Learning / Teaching Methodology** |
| Students are required to attend all classes.   * Students are expected to carry out the assigned readings, attend quizzes and submit assignments on time. * Students are encouraged to use internet to search for various related topics. Lecture notes, assignments and announcements will be posted on the course’s web site (http://sct.emu.edu.tr/it/itec211). |

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| **Assignments** |
| Assignments in the form of PowerPoint presentations and case studies will be presented in order to explore the subject in detail and develop understanding of the subject. |

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| **Main References/ Course Materials** |
| **Text Books:**  -------------------------------  **Resource Books:**  Exchange and Transport, Energy and Ecosystems (Nelson Advanced Science:Biology ) by John Adds, Erica Larkcom and Ruth Miller  Planning and Installing Solar Thermal Systems  Planning and Installing Bioenergy Systems  Planning and Installing Photovoltaic System  Planning and Installing Wind Energy Systems  James and James (Science Publishers) Ltd.  In the UK and USA 2005 |

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| **Evaluation and Grading** | **Percentage %** |
| **Homework (Questions-Paper)** | **10% - 10%** |
| **Presentation from Lecture Notes Topic** | **15 %** |
| **Quizzes** | **30 %** |
| **Final exam** | **35%** |

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| **Attendance** |
| * Each student can have only one make-up exam at the end of each semester * One who misses an exam should convince the instructor (with the support of a medical report or any other material) within any three days after the missed exam. * Make-up exams will only be given to students with a 60 % or better attendance. * The make-up exams will be done at the first Monday immediately after the final exams end and will cover all of the topics covered during the semester. * No make-up will be given to the quizzes. * Students who fail to attend the lectures regularly may be given an NG grade. |

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| **Weekly Schedule/Summary of Topics** | |
| The lecture topics within the semester are as in the following schedule: | |
| Week 1 | Introduction |
| Week 2 | Biomass Energy |
| Week 3 | Hybrid Systems (PV + Wind Systems) |
| Week 4 | Solar Energy |
| Week 5 | Renewable Energy Economics |
| Week 6 | Environment and Energy Association |
| Week 7 | General Overview of the Renewable Energy Resources |
| Week 8 | Biomass |
| Week 9 | Wind Energy |
| Week 10 | Photovoltaic |
| Week 11 | The Basics of Planning and Installing Photovoltaic System |
| Week 12 | PV System Components in Planning and Installing Photovoltaic System |
| Week 13 | FINAL EXAMINATION |

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| **Plagiarism** |
| This is intentionally failing to give credit to sources used in writing regardless of whether they are published or unpublished. Plagiarism (which also includes any kind of cheating in exams) is a disciplinary offence and will be dealt with accordingly.) |