COURSE OUTLINE

(1) GENERAL

SCHOOL	Engineering		
DEPARTMENT	Electrical & Computer Engineering		
LEVEL OF STUDY	Undergraduate		
COURSE UNIT CODE	9.002	**SEMESTER**	9th
COURSE TITLE	Stability Analysis of Power Systems		

COURSEWORK BREAKDOWN	TEACHING WEEKLY HOURS	ECTS Credits
Theory (Lectures)	2	2
Tutorial/Project	1	1
Laboratory	1	1
TOTAL	**4**	**4**

COURSE UNIT TYPE	Special Background
PREREQUISITES	None
LANGUAGE OF INSTRUCTION/EXAMS	Greek/Greek
COURSE DELIVERED TO ERASMUS STUDENTS	NO
WEB PAGE (URL)	https://eclass.hmu.gr/courses/ECE207/

(2) LEARNING OUTCOMES

Learning Outcomes
Upon successful completion of the course the student will be able to: A) Analyzes the continuous regulation of the produced real and reactive power following continuous load changes and transmission operation losses of Electrical Systems. B) Understands and analyzes the basic stability problems of power systems, of different types, topologies and dimensions.
General Skills
The course aims to acquire the following general skills: • Search, analysis and synthesis of data and information, using the necessary technologies • Adaptation to new situations • Autonomous work • Teamwork • Project design and management • Respect for the natural environment

(3) SYLLABUS

The aim of the Course is the deep knowledge of the operation of the Electricity Systems, the understanding of the involvement of each subsystem and stakeholder in the transmission and distribution network. To achieve this goal the structure of the course content is the following: **Theory** 1. Primary and Secondary Regulation 2. Transitional stability of electricity systems 3. Condition assessment 4. More efficient transmission networks and flexible distribution systems 5. Electricity market analysis and rolling daily energy planning.

(4) TEACHING METHODS - ASSESSMENT

MODE OF DELIVERY	In-Class Face-to-Face	
USE OF INFORMATION AND COMMUNICATION TECHNOLOGY	Relevant ICTs Technologies & e-class	
TEACHING ORGANISATION	**Method description / Activity**	**Semester Workload**
	Lectures	40
	Exercises	20
	Projects	25
	Self-Study	35
	Total Contact Hours	**120**
ASSESSMENT METHODS	Language: Greek Evaluation methods: 1. Final exams (80%) 2. Project (20%)	

(5) RECOMMENDED BIBLIOGRAPHY

Journals:
- *IEEE Transactions on Power Systems*
- *Elsevier Electric Power Systems Research*
- *Elsevier International Journal of Electrical Power & Energy Systems*

Sites:
1. *http://www.rae.gr*
2. *http://www.deddie.gr*
3. *http://www.admie.gr*