List of Specialization Courses- MINERAL RESOURCES - PETROLOGY AND ENVIRONMENTAL MANAGEMENT

1 st SEMESTER (Hours per week, ECTS)

OΠΠ-Y01 INSTRUMENTAL ANALYTICAL METHODS (4, 7)

OΠΠ-Y02 CRYSTAL CHEMISTRY AND MINERAL GENESIS – MINERALS AND MATERIALS SCIENCE (4, 7)

Elective Courses – Two to be chosen:

OΠΠ-E01 MAGMATISM AND GEOTECTONIC ENVIRONMENT (4, 8)

OΠΠ-E02 GEOCHEMICAL EXPLORATION METHODS (4, 8)

OΠΠ-E03 MINERAL RESOURCES, MINING AND SUSTAINABLE DEVELOPMENT (4, 8)

ΟΠΠ-Ε04 CONTINENTAL AND MARINE VOLCANISM – ENVIRONMENTAL VOLCANOLOGY (4, 8)

2 nd SEMESTER

OΠΠ-Y03 GEOLOGICAL FIELDWORK AND MAPPING (4, 7)

Elective Courses (two of 8 ECTS/ one of 7 ECTS to be chosen):

OΠΠ-E05 GENESIS - DIAGENESIS OF SEDIMENTARY DEPOSITS** (4, 8)

OΠΠ-E06 METAMORPHIC PETROGENETIC PROCESSES ** (4, 8)

OΠΠ-E07 WASTE MANAGEMENT* (4, 8)

OΠΠ-E08 RESEARCH METHODOLOGY AND SCIENTIFIC WRITING * (4, 8)

OΠΠ-E09 RISK ASSESSMENT OF POLLUTION* (4, 7)

OΠΠ-E10 MINERAL GENESIS IN GREECE AND EUROPE – CRITICAL MINERAL RESOURCES IN THE EU * (4, 7)

OΠΠ-E11 BUILDING STONES AND RAW MATERIALS – GEMOLOGY** (4, 7)

OΠΠ-E12 METASOMATIC/HYDROTHERMAL ALTERATIONS AND METALLOGENY ** (4, 7)

OΠΠ-E13 LITHOLOGIES OF PETROLEUM SYSTEMS ** (4, 7)

* Pre-requisite courses are ΟΠΠ-Ε02 and ΟΠΠ-Ε03 ** Pre-requisite courses are ΟΠΠ-Ε01 and ΟΠΠ-Ε04

3 rd SEMESTER Elective Courses only (two of 8 ECTS/ one of 7 ECTS to be chosen):

ΟΠΠ-E14 SUSTAINABLE REMEDIATION OF CONTAMINATED LAND AND WATER (4, 8)

OΠΠ-E15 ADVANCED TOPICS OF SEDIMENTARY PETROLOGY (4, 8)

OΠΠ-E16 ARCHAEOMETRIC MINERALOGY AND PETROLOGY (4, 8)

OΠΠ-E17 ELEMENTS OF ADVANCED GEOCHEMISTRY (4, 7)

OΠΠ-E18 OPHIOLITIC COMPLEXES: FROM GENESIS TO ECONOMIC SIGNIFICANCE (4, 7)

OΠΠ-E19 BASIC PRINCIPLES OF GEO-MICROBIOLOGY WITH APPLICATIONS IN MINERAL

RESOURCE EXPLORATION AND THE ENVIRONMENT (4, 7)

ΟΠΠ- E20 ENVIRONMENTAL MINERALOGY AND PETROLOGY – MEDICAL GEOLOGY (4, 7)

4 th SEMESTER

Postgraduate Dissertation 30