

## COURSE OUTLINE

### 1. GENERAL

<b>SCHOOL</b>	ECONOMIC SCIENCES		
<b>DEPARTMENT</b>	ACCOUNTING AND FINANCE		
<b>LEVEL OF STUDY</b>	Undergraduate		
<b>COURSE UNIT CODE</b>	<b>AF708</b>	<b>SEMESTER OF STUDY</b>	7th
<b>COURSE TITLE</b>	Institutional Framework for Water Resources Management		
<b>COURSEWORK BREAKDOWN</b>		<b>TEACHING WEEKLY HOURS</b>	<b>ECTS Credits</b>
Lectures		3	5
<b>Total</b>		<b>3</b>	<b>5</b>
<b>COURSE UNIT TYPE</b>	General Course, Compulsory		
<b>PREREQUISITES:</b>	No		
<b>LANGUAGE OF INSTRUCTION/EXAMS:</b>	Greek		
<b>COURSE DELIVERED TO ERASMUS STUDENTS</b>	Yes (English)		
<b>MODULE WEB PAGE (URL)</b>			

### 2. LEARNING OUTCOMES

Learning Outcomes
<p>The course aims at familiarising students with the economic value of water, and with a wide range of topics related to water legislation, (international and European legislation, transnational agreements for water management and control, relationships and hierarchy of rules and regulations, etc.) and water policy, such as the Directive Framework for Water in Europe, social domestic tariffs in high-income countries, etc.</p> <p><b>Subjects</b></p> <ol style="list-style-type: none"> <li>1. understanding the financial theory of resource allocation, by distinguishing the special considerations about water</li> <li>2. understanding the interactive relation between economics and politics</li> <li>3. understanding international, European, and national legislation on water, by focusing on Framework directives for Water and Floods</li> <li>4. cost-benefit analysis, water marketing and pricing, demand and supply assessment, privatisation and models of demand and supply</li> <li>5. water pricing</li> </ol> <p><b>Learning Objectives</b></p> <p>Upon completion of the course, students will be able to:</p> <ol style="list-style-type: none"> <li>1. create a platform and carry out institutional and financial analysis using both theoretical and empirical tools for water sustainability</li> <li>2. learn about methods of determining legal, environmental, economic and social impacts of management plans</li> </ol> <p><b>General objectives – General learning outcomes</b></p> <p>The course aims at enabling students to learn about and understand the significance of the economic value of water as a natural resource and commodity. In addition, it discusses water legislation, and more specifically, prioritisation rules, international and European legislations, and transnational agreements on water management and control. A major objective involves understanding international, European and national water legislations, the European Water Framework Directive, the financial theory of resource allocation, cost-benefit analysis, the role of water marketing and pricing, demand and supply assessment, privatisation and models of demand and supply functions.</p>

The students will have the opportunity to learn about the role of international organisations (European Union, World Bank, United Nations) and examine case studies of institutional water resources management in developed and developing economies, and economies in transition.

#### **Specific objectives**

##### **1.1. Knowledge**

The students will be able to acquire special knowledge of Greek and European water resources management legislation, focusing mostly on the financial dimension. In this framework, they will become familiar with sustainable water policies, integrated water resource management, water demand management and potential climate change impact, land use changes and impact, as well as surface and underground water assessment as regards integrated watershed management.

##### **1.2 Skills**

The students will be taught about the interaction of national and international legislations shaping international laws of financial natural resource management. In addition, by engaging in group work, they will be able to learn about the institutional framework of water resources management and the relevant global environmental challenges and carry out financial assessments of development scenarios and impacts of water resource development projects and programmes. They will also examine specific management plans for catchment areas in Greece, and in particular, the Region of Western Macedonia with significant and transboundary water resources.

##### **1.3. Abilities**

The students are expected to acquire the relevant knowledge and skills to apply scientific analyses by employing models (such as SWAT - Soil and Water Assessment Tool), which are essential to enabling understanding of the institutional framework for natural and water resources management given that the specific course is fundamental in natural resources financial management.

More specifically, they will acquire the following basic skills:

1. practical application of acquired knowledge
2. decision-making
3. working in international contexts
4. making criticism and self-criticism
5. improving free, creative, and critical thinking

#### **General Skills**

- searching, analysing, and combining data and information, using relevant technologies
- acquiring special knowledge of information sources and being capable of using them for research group work assignments
- keeping up to date on the latest developments in water resources management and being able to make presentations
- carrying out individual or group work assignments
- engaging in teamwork
- improving free, creative, and critical thinking.

### **3. COURSE CONTENTS**

1. Introduction to the institutional framework of water resources management in the European Union - Historical Review
2. EU legislation for the management of water resources
3. Directive 2000/60 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy (23 October 2000)
4. Management by river basin - Management Plans
5. International Rules and Principles of Water Resources Management. International Law sources (Common law, International Treaties, Conventions and Acts of International Organisations)
6. International Organisations and their role in water resources management
7. Water resources transnational cooperation and dispute resolution
8. Greek legislation on water resources and relevant competence
9. Water resources management legislation in EU member states. Comparative study
10. Case studies of institutional water resources management in developed and developing economies, and economies in transition
11. Water resources and Economic Development
12. Water Resources Management Models

13. Financial theory of resource allocation and cost-benefit analysis, water marketing and pricing
14. Water privatisation and pricing based on demand and supply assessment. Constitutional protection of water as a commodity and natural resource

#### 4. TEACHING METHODS - ASSESSMENT

<b>MODE OF DELIVERY</b>	In class	
<b>USE OF INFORMATION AND COMMUNICATION TECHNOLOGY</b>	Learning process is supported via e-class, audiovisual material (i.e., Power Point), multimedia and e-mails.	
<b>TEACHING METHODS</b>	<b>Method description</b>	<b>Weekly Workload</b>
	Lectures	50
	Case studies and discussion	30
	Self-study	60
	<b>Total</b>	140
<b>ASSESSMENT METHODS</b>	<ol style="list-style-type: none"> <li>1. Final Formal Exams</li> <li>2. Mid-term exam or quizzes</li> <li>3. Project Work – written assignment or presentation (optional)</li> <li>4. Group work</li> <li>5. Ensuring transparency in assessment: Students are allowed to discuss how their work is marked.</li> </ol>	

#### 1. RESOURCES

- Recommended Book Resources:

1. Koundouri, Ph., Papandreou, N., Remoundou, K. & Kountouris, Y. (2014). A Bird's Eye View of the Greek Water Situation: The Potential for the Implementation of the EU WFD, Global Issues in Water Policy, 7. Dordrecht <https://doi.org/10.1007/978-94-007-7636-4>
2. Mays, L. (1996) Water Resources Handbook, McGraw-Hill Commission of the European Communities, Pricing policies for enhancing the sustainability of water resources, COM/2000/0477 final. (Luxemburg Office for Official Publications of the European Communities, 2000)
3. Resolution A/RES/64/292. United Nations General Assembly, General Comment No. The right to water. (UN Committee on Economic, Social and Cultural Rights, 2010.)
4. United Nations, Office of the High Commissioner for Human Rights (OHCHR), United Nations Human Settlements Programme (UN-Habitat), World Health Organization (WHO), 2010. The Right to Water, Fact Sheet No. 35, Geneva

#### Journals and Conference Proceedings Papers

1. Farmaki, P., Tranoulidis, A. (2018) "Water policy in Greece: management and pricing under the provisions of the European Water Framework Directive 2000/60/EC in CBU INTERNATIONAL CONFERENCE ON INNOVATIONS IN SCIENCE AND EDUCATION MARCH 21-23, PRAGUE, CZECH REPUBLIC pp.107-112
2. Farmaki, P. (2018) Analysis of the implementation of full cost recovery of water services and water pricing in Greece under the provisions of the Water Framework Directive 2000/60/EC. Focusing on the Legal Aspect, Journal of Economic and Finance IOSR Journal of Economics and Finance (IOSR-JEF) e-ISSN: 2321-5933, p-ISSN: 2321-5925. Volume 9, Issue 1 Ver. III (Jan.- Feb .2018), PP 30-39
3. Reynaud, A. (2016) Assessing the impact of full cost recovery of water services on European households, Water Resour Econ, 14, 65-78. <https://doi.org/10.1016/j.wre.2016.04.001>
4. Unnerstall, H. (2007), The Principle of Full Cost Recovery in the EU-Water Framework Directive - Genesis and Content. J Environ Law, 19 (1), 29–42. <https://doi.org/10.1093/jel/eq1038>

