



ΔΗΜΟΚΡΙΤΕΙΟ ΠΑΝΕΠΙΣΤΗΜΙΟ ΘΡΑΚΗΣ | DEMOCRITUS UNIVERSITY OF THRACE

**School of Agricultural and Forestry Sciences**

**Department of Forestry and Management of the Environment  
and Natural Resources**

# **Post-graduate Study Guide**

*«Environmental Planning and Environmental  
Education»*

**Academic Year  
2022 – 2023**

Orestiada, January 2023

DEMOCRITUS UNIVERSITY OF THRACE  
POSTGRADUATE STUDY GUIDE  
ENVIRONMENTAL PLANNING AND ENVIRONMENTAL EDUCATION  
ACADEMIC YEAR 2022 - 2023

EDITED BY:  
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# 1 Thrace

Geographically speaking, the area of Thrace resides in the north east part of mainland Greece while it borders on Turkey from the east and on Bulgaria from the north. Notably, Thrace is directly connected with the two countries via a reliable road and railway network. Its range is 8,578 square kilometers (km<sup>2</sup>) and its population reaches approximately 350,000 residents nowadays.

Thrace and the area of East Macedonia consists a special administrative prefecture of the Greek state with the city of Komotini as its capital. It is divided into three districts, i.e. Xanthi, Rodopi and Evros with their capital cities of Xanthi, Komotini and Alexandroupoli respectively. The network of urban cities in this area is completed if we add the towns of Orestiada, Didimoteicho, Soufli, Feres, Iasmos and Sapes. Finally, Samothraki, one of the most beautiful islands in the North-East of Aegean Sea belongs to the Prefecture of Evros from an administrative point of view.

Agriculture, livestock and small-scale industry consist the major sectors of economy in the area. Throughout recent years, there has been noted a rapid development in the sector of tourism as well. Due to its key geographic location, Thrace has been transformed into a 'gate' of Europe to Turkey and the East as well as into a significant transportation hub from and towards the area of Central Balkans. In effect, these achievements have resulted in the gradual development of the area and in the enhancement of living standards of its residents.

Within the limits of Thrace, there are important archeological sites such as Abdera, Maronia, Mesimvria, Samothraki, Mikri Doxipara and wet marshlands of exceptional importance such as the Delta of the rivers Nestos and Evros and the Vistonida lagoon which are all protected by national conventions and organizations.

Finally, Thrace also hosts one of the most important state National parks in Greece, the Dadia-Lefkimi-Soufli National Park, where some of the protected and rarest species of birds of pray in Europe find shelter.



**Ardas River**

## 2 New Orestiada

New Orestiada is the northernmost city in Greece and also the capital city of the respective Borough. It is about 2 kilometres away in straight line from the river Evros, which is the natural border between Greece – Turkey. Its distance from Adrianoupolis and the tri-border area of Greece-Turkey-Bulgaria is 23 and 64kilometers away respectively.

The Municipality of New Orestiada belongs to the prefecture of Evros, the biggest county in Thrace in terms of both range and population. The county has a range of 4,242 square kilometers and a population of 153,164 residents. The Municipality of New Orestiada is adjacent to Bulgaria from the West and the North, to Turkey from the North and the East, as well as to the Municipality of Didimoteicho from the South and has a range of 944 square kilometers while its population reaches 41,074 residents. The population of the main city of New Orestiada is approximately 20,000 residents according to the 2011 Census, while the permanent residents are about 25,000.



**The Town Square in Orestiada**

The city has a 50-metre altitude and its distance from the capital city of Evros, Alexandroupolis, is 110 kilometers. Thessaloniki is 410 kilometers and Athens is 910 kilometers away respectively. The area of New Orestiada is one of the most fertile and productive areas in Greece, with a landscape that is distinctively beautiful and rich.



**The area in Kastanies with Adrianoupolis in the background**

## **3 Democritus University of Thrace**

### **3.1 Historical Background**

Democritus University of Thrace (D.U.Th.) was founded in July 1973 by the Legislative Decree No. 87 of July 27, 1973, and opened its gates to the first students in the academic year 1974-1975. It was named “Democritus” in honor of the ancient Greek philosopher Democritus who came from Abdera in Thrace and its administration basis is located in the city of Komotini, the capital of the Administrative Region of Eastern Macedonia and Thrace. The university plays a strategic role in strengthening the national and cultural character of the region and contributes to high-quality studies provided by tertiary education in Greece. Its excellent teaching quality and pioneering research have secured D.U.Th. a place among the best Greek universities. As a higher education institution, D.U.Th. is a self-governing, public law entity that is supervised and subsidized by the State Ministry of Education and Religious Affairs. Academically speaking, the university currently consists of eight Schools and twenty Departments that are located in four cities in Thrace: five (5) in Xanthi, nine (9) in Komotini, four (4) in Alexandroupolis and two (2) in Orestiada with a student population that amounts to 29,000. In what follows, the university Departments are listed based on their geographical location and foundation year (in parenthesis):

#### **XANTHI**

1. Department of Civil Engineering (1974)
2. Department of Electrical and Computer Engineering (1975)
3. Department of Environmental Engineering (1995)
4. Department of Architecture Engineering (1999)
5. Department of Production Engineering and Administration (2000)

#### **KOMOTINI**

1. Department of Law (1974)
2. Department of Physical Education and Sports (1984)
3. Department of History and Ethnology (1991)
4. Department of Social Policy (1994)
5. Department of Greek Language and Literature (1995)
6. Department of Social Work (1996)
7. Department of Economics (1999)
8. Department of Languages, Philology and Culture of the Black Sea Countries (2000)
9. Department of Political Science (2009)

#### **ALEXANDROUPOLI**

1. Department of Medicine (1985)
2. Department of Primary Education (1986)
3. Department of Education Science in Early Childhood (1987)
4. Department of Molecular Biology and Genetics (2000)

#### **ORESTIADA**

1. Department of Forestry and Management of the Environment and Natural Resources (1999)

2. Department of Agricultural Development (1999)

### **3.2 Democritus University of Thrace - Administration**

The administration at D.U. Th. is carried out by the Foundation Board, the Rector and the Senate which consist of the Rector, the School Deans and the Departmental Heads (up to two per School) on a two-year non-renewable term. The method for the representation of Heads in the Senate is determined by decision of the Rector. There are also three representatives for undergrads, postgrads and doctoral students who are elected for an annual term and cannot be re-elected. A representative of each category of university staff, with a two-year term and who cannot be re-elected is also included in the Senate. He is elected from a single ballot by universal suffrage of all members of his staff category (academic/administrative) and participates in the Senate with the right to vote, when issues related to his category are discussed. The exact composition and number of Senate members with voting rights as well as the conditions and issues related to the implementation of the above are provided for by the Internal Regulation at D. U.Th. Senate meetings are also attended by the rector's deputy and the secretary of the institution but without the right to vote.

#### **SENATE**

The Senate consists of the Rector, the Vice-Rectors, the Deans of the Schools and the Heads of the Departments, one representative of the Research and Teaching Staff from each Department, one representative of the undergraduate students, one representative of the postgraduate students, one representative of the Ph.D candidates, one representative of the Special Educational Staff, one representative of the Special Teaching Staff, and one representative of the Special Technical Educational Staff.

The Senior Secretary of the University is present during the Senate meetings, but has no right to vote.

#### **RECTORATE AUTHORITIES**

The rectorate authorities in D.U.Th. as elected in January 2023 are as follows:

Rector:

**F. Maris**, Professor, Department of Civil Engineering

Vice Rector for Finance, Planning and Development:

**K. Chalioris**, Professor, Department of Civil Engineering

Vice Rector for Academic and Student Affairs:

**M. Grigoriou**, Professor, Department of Molecular Biology and Genetics

Vice Rector for Research and Lifelong Learning:

**G. Broufas**, Professor, Department of Agricultural Development

Vice Rector for Administrative Affairs:

**B. Gourgoulis**, Professor, Department of Physical Education and Sports



D.U.Th. Webpage:

<http://www.duth.gr>

### **3.3 School of Agricultural and Forestry Sciences - Administration**

Administration in the School of Agricultural and Forestry Sciences is exercised by the General Assembly, the Deanery and the Dean. The General Assembly of the School consists of the Departmental General Assemblies while members of the Deanship are the Dean, the departmental Heads of the School and a representative of the students from each Department of the School. The Dean is elected for three years by electorates who are members of the academic staff of the School and vote for Departmental Heads.

For the academic year 2022 2023, the administrative authorities of the School of Agricultural and Forestry Sciences are as follows:

Dean:

**S. Galatsidas**, Professor, Department of Forestry and Management of Environment and Natural Resources

Deputy Head of Secretariat:

**S. Kouretsidis**

Dean of the School of Agricultural and Forestry Sciences - Webpage:

<https://geo.duth.gr/>

### **3.4 School of Agricultural and Forestry Sciences - Library**

The library at the School of Agricultural and Forestry Sciences consists of a Reading Room, a Computer Room to facilitate students' study, and a modern library numbering 10,200 books that is constantly enriched, with most current subscriptions being mainly electronic. The loaning policy has been approved by the Senate in accordance with the Regulations set by the Central Library of the university. D.U.Th. Central Library is accessible on the internet enabling all stakeholders to search books they need in the library of the School of Agricultural and Forestry Sciences as well as in the libraries of other Schools and Departments of the university and in all academic libraries available in the country that offer their services online.

D.U.Th. library provides access to 5,000 academic journals via the HealLink network. Instructions on how to search for information are provided by the library staff while students can also find relevant information by accessing the library webpages via internet.

Library Opening Hours – School of Agricultural and Forestry Sciences:

Monday, Wednesday, Friday: 08:00-14:00

Tuesday, Thursday: 08:00-17:00

Opening Hours (Reading Room): Monday – Friday: 08:00 – 22:00

Librarian – School of Agricultural and Forestry Sciences:

Zelidou Eleni

D.U.Th. Library Webpage:

<http://www.lib.duth.gr>

### **3.5 Student Welfare**

Student Welfare Office in Orestiada:

S. Kouretsidis

#### **Food**

All active undergraduate and graduate students at the School of Agricultural and Forestry Sciences can have access to the University Cafeteria for free meals. Information on the required supporting documents and submission dates is provided by the School's Student Welfare Office. The restaurant is open daily 07:00-09:00 (except weekends), 12:30-15:00 and 19:00-21:00.



**University Cafeteria – School of Agricultural and Forestry Sciences**

#### **Accommodation**

All active undergraduate and postgraduate students are entitled to free accommodation in the university dormitory. Student housing in the city of Orestiada in the premises of the university with a capacity of 82 beds. Information on the required supporting documents and submission dates is provided by the School's Student Welfare Office.



**University Accommodation - School of Agricultural and Forestry Sciences**

### **Healthcare**

Students have access to medical, hospital and pharmaceutical care (Presidential Decree 327/1983 (Government Gazette 117/7 9 83 Issue A')) provided by local doctors who have a contract with the national state health system. Health, medical and hospital care is provided to all undergraduate and postgraduate students (native or non-native) in all universities of the country. After this period has expired - the minimum duration of undergraduate studies in the department is 4 years, plus/minus 2 - benefits such as medical and hospital care, performance scholarships and scholarships for aid loans, free meals, housing and provision of textbooks or other aids, facilitation for travel, etc. are not further granted (art. 9 par. 10 of Law 2083/92).

### **3.6 Counseling and Accessibility Center**

The Counselling and Accessibility Center at Democritus University of Thrace was established based on Senate Decision no. 40/51/12.12.2017. It opened in 2018 and was originally funded by ESPA 2014-2020 Act ‘Support for Social Welfare Interventions for Students of Democritus University of Thrace’. The primary objective of the Center is to promote constructive learning, academic success and socialization of students at D.U.Th., who face special learning needs and physical disabilities.

Its aims are:

- Equal access to educational activities for students with special needs and disabilities, through the adaptation of the educational environment, the use of assistive information technology and the provision of services to facilitate access to university premises and knowledge in general.
- The personal development and improvement of social life for students with special learning needs and physical disabilities, both inside and outside the campus.

In particular, the Center organizes actions to address problems related to the following issues:

- Studies: learning difficulties, difficulties in studying and understanding, difficulties in decision-making, inability to concentrate, exam stress, incompatibilities in educational spaces, means and materials due to disability.
- Academic life: difficulties in adapting to the educational environment, difficulties in time organization and management, negative attitude towards the subject of study.
- Social life: difficulties in relationships with family and friends, isolation, low self-esteem, difficulties in being accepted and integrated within the social environment.
- Other problems: psychosomatic disorders, emotional problems, addictions.

The headquarters of the Center are based in Komotini with branches in Xanthi, Alexandroupolis and Orestiada. It is supervised scientifically by faculty members whose research interests align with the mission of the Center and it consists of two departments, i.e. Department of (i) Counseling and Psycho-social Support and (ii) Accessibility.

Contact:

Phone:: 25310-39050, -39163 E-mail: dosyp@duth.gr

Counseling and Accessibility Center Webpage:

<https://dosyp.duth.gr>

### **Department of Counseling and Psycho-social Support**

The Departmental staff consists of a Psychiatrist, Psychologists and Social Workers.

#### **Services:**

- Individual counselling for students who experience difficulties with studying (learning difficulties, difficulties in studying and understanding, inability to concentrate, exam stress) or with other psychological and social issues
- Formative assessment of students' psychosocial needs
- Group Counseling
- Student networking with local health services and social services
- In case of an emergency, a place to contact

#### **Workshops / Seminars**

Organization of seminars and workshops with experiential and interactive character aiming to boost students' empowerment and personal development

#### **Volunteerism**

Organization of a network of volunteers for the development of socialization initiatives and voluntary contribution to the wider university community.

### **Department of Accessibility**

The Departmental staff consists of a Electrical and Computer Engineers

#### **Electronic Accessibility Services**

- Adaptation of the educational environment, use of digital accessibility tools,
- Design of accessible library and internet workstations
- Development of a digital environment for counselling, psychosocial support and accessibility actions.
- Conversion of educational material and textbooks into accessible formats.
- Personalization of assistive technology per student applicant and training in the use of assistive technologies and software

#### **Accessibility Services in D.U.Th. Premises and Infrastructure**

- Accessibility study of buildings and other infrastructure
- Evaluation of amendments for the improvement of accessibility to D.U.Th. premises and provision of know-how to other bodies.

#### **Teaching Assistive Software**

Free software and assistive technology software are offered.

## **Volunteerism**

The Department of Accessibility cooperates with volunteers in initiatives concerning the conversion of educational material into accessible formats.

### **3.7 Student Academic ID**

Students submit their application for their student identity card electronically via the website <https://academicid.minedu.gov.gr/>, using their personal academic passwords (academic username and password). On approval of the application by the relevant Secretariat, all students may receive his/her ID card from the respective delivery point he/she has selected when submitting his/her application. Specific commercial stores have been defined as the delivery points, as identified by the contractor of the project.

The new student ID card resembles a credit card in form, meets all modern specifications, with a photo of the beneficiary attached, a special security hologram and his/her details written in Latin characters (for use abroad).

Beneficiaries of the new students ID card are:

- (1) Undergraduate students who have not exceeded  $n+2$  years of study (where  $n$  is the duration provided for in the indicative curriculum)
- (2) Postgraduate students, for the entire duration of their studies, according to the indicative curriculum.
- (3) Doctoral students, for 4 years since the date of their registration.

It should be noted that students who have exceeded the twenty-ninth (29) year of age by the date of their application or have been admitted with a qualifying exam, are not entitled to a student ID card. Termination of student status for any reason automatically entails the termination of the right to hold the ID card, which in this case has to be returned to the secretariat of the Department.

Each Secretariat is connected to the Central Information System via a special web application through which it can monitor students' applications.

First-year students are entitled to discounts when using public transportation until September 30 when displaying the certificate of their registration in the Department, issued by the Secretariats and their identity card, until they receive their student ID card.

### **3.8 Military Service**

Students who have not fulfilled their military obligations are entitled to postponement of military service for the completion of their studies. The deferral for military service is granted for a period equal to that resulting from the aggregation of the year in which the deferral was granted and the expected years of study increased by two. More information can be supplied from local recruiting offices.

### **3.9 Computing Center – Network Management Center**

Director: N. Kasapidis

Staff: N. Grigoriadis

I. Plevridis

S. Chatzopoulos

Το Υπολογιστικό Κέντρο του Δ.Π.Θ. άρχισε να λειτουργεί το 1976 με την εγκατάσταση του πρώτου υπολογιστικού συστήματος UNIVAC 90/30 και χρησιμοποιείτο βασικά από την Πολυτεχνική Σχολή. Σήμερα το Υπολογιστικό Κέντρο - Κέντρο Διαχείρισης Δικτύων του Δ.Π.Θ. είναι θεσμοθετημένο όργανο, που λειτουργεί βάσει οργανισμού, που εγκρίθηκε με απόφαση Συγκλήτου, και εξυπηρετεί ολόκληρο το Πανεπιστήμιο που βρίσκεται εξαπλωμένο σε όλη τη Θράκη, με το DUTHnet, διαθέτει πληθώρα υπολογιστών, και όλες τις σύγχρονες εφαρμογές, όπως ηλεκτρονικό ταχυδρομείο, υψηλής ταχύτητας πρόσβαση στο Internet και άλλα.

Με απόφαση Συγκλήτου (21/01/18, Σεπτέμβριος 2014) από το Σεπτέμβριο του 2014 συγκροτήθηκε νέα Επιτροπή με τίτλο «Επιτροπή Επικοινωνιών και Δικτύων» του Δ.Π.Θ. η οποία αντικαθιστά τις προηγούμενες Επιτροπές Υπολογιστικού Κέντρου και Διαχείρισης Δικτύων, και Επιτροπής Τηλεπικοινωνιών που καταργούνται.

Webpage of Computing Center – Network Management Center:

<http://www.noc.duth.gr>

<https://helpdesk.duth.gr/>

### **3.10 Bureau of Liaison Studies and Career**

Director: D. Tsitsis

D.U.Th. Liaison Bureau was established under the Operational Programme for Education and Initial Vocational Training (EPAEK). Via this newly established institution, the Liaison Bureau acts as an information center for D.U.Th. students and graduates and as a link between the University and the Production Community so as to help its students and graduates to smoothly approach the stage of their professional rehabilitation. Due to the geographical dispersion of the university, three different branches of the Bureau operate today in Xanthi, Komotini and Alexandroupolis.

Webpage of Bureau of Liason Studies and Career:

<https://dasta.duth.gr>

### **3.11 Erasmus Mobility and Traineeship**

Coordinator for the Department of Forestry and Management of the Environment and Natural Resources:  
A. Paschalidou, Assoc. Professor

Erasmus+ is the key education and training programme in the EU focusing on student and staff mobility and cooperation between higher education institutions. It supports the development and compilation of the European Charter for Higher Education, thereby increasing innovation, growth and employment.

The utilization of mobility opportunities by the Departmental academic staff is encouraged, within the limits of its capabilities and without obstructing teaching activities in the Department, including the following:

- postgraduate courses assignment to other D.U.Th. departments
- postgraduate courses assignment to departments of another higher education institution
- educational cooperation programs with other institutions or agencies (e.g. summer schools)
- educational leave, visit and stay in an institution abroad for educational or research purposes

- Erasmus mobility for educational or training purposes

Mobility via the Erasmus program has a clear financial support framework, which is described in detail on the website <http://erasmus.duth.gr/>. To train the teaching staff and in line with the mobility strategy for academic staff members, the Department participates in mobility programs that apply for the university faculty members (<http://erasmus.duth.gr/>). Since 1996, D.U.Th. has been actively participating in the Erasmus mobility program, acting as a source and host institution for thousands of outgoing and incoming students and hundreds of teachers, members of D.U.Th. and foreign higher education institutions that participate in the program. Since 2015, D.U.Th. also participates in the International Mobility Action (ICM) concerning cooperation with institutions in partner countries outside the EU. All members of the teaching staff of the postgraduate program have the opportunity to participate in these programs.

Postgraduate students have the opportunity to undertake internships in other countries via the ERASMUS+ program, taking advantage of an important opportunity for interconnection and exchange of know-how with the foreign labor market. More particularly, in line with D.U.Th. strategic objectives, the Department contributes to the enhancement of extroversion in higher education by fulfilling specific terms and conditions that have been established for the mobility of its students. (<http://erasmus.duth.gr/node/6>).

To ensure the smooth operation of the Erasmus program, the Department has appointed an Erasmus Coordinator who works closely with the Erasmus Office that belongs to the Department of International Relations at D.U.Th., and is responsible for assisting the interested postgraduate students on issues related to the Erasmus Internship program.

## **4 The Department of Forestry and Management of the Environment and of Natural Resources (DFMENR)**

### **4.1 Administration and Organization**

The administrative bodies of the Department are the Head and the General Assembly of the Department. The duties of these bodies are specifically defined by the legislation in force. The General Assembly of the Department consists of the academic staff, one (1) representative member of all teaching categories (EEP, EEDIP, ETEP), one (1) representative of the undergraduate and postgraduate students of the department. The Head of the Department is elected for a two-year term by a body of electors, composed of the Departmental academic staff. The administrative authorities of the Department for the academic year 2022-2023 are as follows:

**Head:**

Tsantopoulos Georgios, Professor, Department of Forestry and Management of the Environment and of Natural Resources

**Deputy Head:**

Paschalidou Anastasia, Associate Professor, Department of Forestry and Management of the Environment and of Natural Resources

**Assistant Secretary:**

Christos Varsamakidis

The Department of Forestry and Management of the Environment and of Natural Resources consists of the following sectors and laboratories:

- I. Sector of Ecology, Environmental Protection and Forest Production
  - a. Laboratory of Forestry
  - b. Laboratory of Forest Genetics and Improvement of Forest Species
  - c. Laboratory of Forest Botany
  - d. Laboratory of Forest Protection and Environmental Pollution
  - e. Laboratory of Forest Soil Science
- II. Sector of Range and Game Science
  - a. Laboratory of Range Science
  - b. Laboratory of Game Science and Aquaculture of Mountainous Waters
- III. Sector of Management and Development of Natural Resources
  - a. Laboratory of Forest Biometrics-Biostatistics
  - b. Laboratory of Forest Management
  - c. Laboratory of Forest and Environmental Policy, Education and Communication
  - d. Laboratory of Forest Economics and Entrepreneurship
  - e. Laboratory of Forest-Environmental Informatics and Computational Intelligence
  - f. Laboratory of Forest Remote Sensing and Geospatial Analysis
- IV. Sector of Forestry and Hydrological Works
  - a. Laboratory of Mountain Water and Risk Management
  - b. Laboratory of Engineering Sciences and Surveying
  - c. Drawing Room
- V. Harvesting Sector and Technology of Forestry Products
  - a. Laboratory of Forest Technology
  - b. Laboratory of Wood Technology and Bio-energy

## **4.2 Departmental Infrastructure**

### **a. Classrooms – Laboratories**

The Department of Forestry and Management of the Environment and Natural Resources has fully-equipped laboratories that support teaching and research. These are the following:

- Forestry
- Forest Genetics and Improvement of Forest Species
- Forest Botany
- Forest Protection and Environmental Pollution
- Forest Soil Science
- Forest Range
- Game Science and Aquaculture of Mountainous Waters
- Forest Biometrics-Biostatistics
- Forest Management
- Forest and Environmental Policy, Education and Communication



- Forest Economics and Entrepreneurship
- Forest-Environmental Informatics and Computational Intelligence
- Forest Remote Sensing and Geospatial Analysis
- Mountain Water and Risk Management
- Engineering Sciences and Surveying
- Forest Technology
- Wood Technology and Bio-energy

The educational process and research in the Department are fully supported by the well-organized and modernly organized local branch of the University Library. The library collection in the field of Forestry and Environmental Science is valuable and constantly updated with new Greek and foreign titles and information material in conventional and/or digital form. Library users have direct access to international databases. Access to library services is available to all members of the university community in accordance with the library's operating regulations. The aforementioned laboratories and the following well-equipped rooms serve as main venues where teaching at the postgraduate program is conducted:

- Computer Room for the Graduate Program
- Presentation Room for the Graduate Program
- K. Sideris Amphitheater

### 4.3 Departmental Staff

#### ACADEMIC STAFF

The academic staff of the Department consists of 7 Professors, 7 Associate Professors and 6 Assistant Professors. Some of the teaching needs are covered by part-time scientific staff that is hired in accordance with the P.D. 407/80 and with the program entitled “Acquisition of Academic Teaching Experience for Young Scientists Holding a PhD”. More specifically, the academic staff of the Department consists of the following members:

#### ACADEMIC STAFF

1. **Andrea Veronika**, Assistant Professor, Area of Specialization: Forest Policy
2. **Arabatzis Garyfallos**, Professor, Area of Specialization: Investments and Regional – Forest Development.
3. **Galatsidas, Spyridon**, Professor, Area of Specialization: Forest Management – Management of Non-Timber functions of forest
4. **Dimou Vasiliki**, Associate Professor, Area of Specialization: Forest Products Harvesting and Forest Work
5. **Drosos Vasileios**, Professor, Area of Specialization: Forest Cadastre, Forest Constructions, Forest Opening-Up
6. **Kantartzis Apostolos**, Assistant Professor, Area of Specialization: Forestry Projects – Forest Road Construction
7. **Karanikola Paraskevi**, Professor, Area of Specialization: Forest Protection
8. **Katagis Thomas**, Assistant Professor, Area of Specialization: Forest Remote Sensing-Aerial Photography - Geographic Information Systems
9. **Kitikidou Kyriaki**, Professor, Area of Specialization: Forest Biometrics
10. **Korakis Georgios**, Associate Professor, Area of Specialization: Forest Botany

11. **Kyriazopoulos Apostolos**, Professor, Area of Specialization: Range Management and Improvement of Silvo-pastoral Systems
12. **Manolas Evaggelos**, Professor, Area of Specialization: Sociology and Environmental-Forest Education.
13. **Milios Elias**, Professor, Area of Specialization: Silviculture
14. **Orfanoudakis Michail**, Associate Professor, Area of Specialization: Forest Soil Science
15. **Papaioannou Georgios**, Assistant Professor, Area of Specialization: Mountain Water Management – Forest Hydrology
16. **Papakosta Malamati**, Associate Professor, Area of Specialization: Wildlife Ecology and Management
17. **Pascahlidou Anastasia**, Associate Professor, Area of Specialization: Meteorology – Atmospheric Pollution
18. **Radoglou Kalliopi**, Professor, Area of Specialization: Forest Eco-physiology
19. **Tsantopoulos Georgios**, Professor, Area of Specialization: Forest Extensions
20. **Tsatiris Michail**, Assistant Professor, Area of Specialization: Forest Energy-Models and Perspectives of Forest Resources

#### **EMERITUS PROFESSORS**

**Efstathios Tsachalidis**, Subject of Specialty: Ecology and Game Management.

**Konstantinos Soutsas**, Subject of Specialty: Regional Environmental Policy: Forest Resources and Quantitative Methods

#### **SPECIAL EDUCATIONAL STAFF**

**Katsarou Eirene**, English Language & Literature, Ph.D.

#### **SPECIAL SCIENTIFIC AND TEACHING STAFF**

**Chatzilazarou Georgios**, Forester – Environmentalist, M.Sc

**Rantzoudi Eleni**, Forester – Environmentalist, M.Sc

#### **SPECIAL TECHNICAL AND LABORATORY STAFF**

**Ioannis Gkougkourelas**, Forester – Environmentalist, M.Sc

**Simeonidis Aggelos**, Forester – Environmentalist, M.Sc

#### **TECHNICAL SERVICE**

**Deligianni Pemanthoula**, Civil Engineer, M.Sc

#### **SECRETARY STAFF**

**Varsamakidis, Christos**

**Batziou, Ioanna**

**Tilioudi, Antonia**

**Papadolpoulou Vasiliki**

**Otemperi, Evgenia**

#### **LIBRARY STAFF**

**Zelidou, Eleni**

## **5 Environmental Planning and Environmental Education**

The second cycle of studies consists of attending a Postgraduate Program and is completed with the award of a Postgraduate Diploma.

The Department of Forestry and Management of the Environment and Natural Resources at D.U.Th. offers a Postgraduate Program entitled "Environmental Planning and Environmental Education" with the following specializations:

- I. Environmental Planning and Management of Natural Resources
- II. Environmental Education and Communication

Postgraduate studies at D.U.Th. are part of the aims and general mission set by the institution. The provisions of the departmental internal regulations for the program further specify and supplement the legislative framework concerning postgraduate studies (Law 4957/2022 (A'141) and contribute to the regulation and smooth operation of this program. The Postgraduate Studies Regulation is drawn up following a decision of the Departmental General Assembly, is approved by the Senate, is published in the Government Gazette, posted on the Department's website and sent for notification to the Ministry of Education, Research and Religious Affairs.

### **5.1 Objectives of the Program**

The postgraduate program is part of the strategic planning at D.U.Th that is governed by scientific coherence and aims at the promotion of knowledge, research development, the fulfillment of educational, research, social, cultural and developmental needs of the country as well as at highly-qualified graduates specializing in both theoretical and applied areas of Environmental Planning and Environmental Education. The specific objectives of the MSc program are the following:

- To provide students with specialized knowledge, cultivate critical, analytical and synthetic thinking and develop the scientific approach to issues related to the areas of environmental planning and management of natural resources as well as environmental education and communication.
- To familiarize students with current research methodology and new technologies.
- To theoretically empower students and enable them understand the various research techniques and different methods used for data processing and analysis in the fields of environmental planning and management of natural resources and of environmental education and communication.
- To encourage students to critically process scientific papers and select the appropriate scientific methodology to conduct their own research
- To contribute to sustainable development by training public and private sector executives
- To promote the practical application of the knowledge acquired by students during their undergraduate studies and consolidate it for use at a doctoral level

### **5.2 Number of Entrants**

The number of admissions per year is set at a maximum of seventy (70) postgraduate students. The exact number of vacancies for admission to the program and their allocation to the two specializations is determined every year by the General Assembly of the Department. The criteria and the selection procedure are presented in detail in the internal regulations of the program and are presented in the following paragraphs.

### **5.3 Categories of Prospective Students**

Possible candidate students for admission to the program are BA holders from Greek universities or equivalent institutions abroad. The competent Secretariat checks whether the institution awarding the BA title belongs to the National Register of Recognized Foreign Institutions and whether this title belongs to the National Register of Types of Qualifications of Recognized Institutions posted on the website of DOATAP. Members of the EEP, EDIP and ETEP categories who meet the requirements of the law, may, upon their request, be registered as supernumerary, and only one per year in one MSc program provided that they serve in the relevant Department and the degree and the work they perform is relevant to the subject of the MSc program. Foreign students who have completed secondary education in Greece or in a Greek-speaking school abroad can also be admitted.

### **5.4 Program Duration**

The normal duration of study of the program leading to the award of the Diploma is set at a minimum of two semesters followed by a summer semester. The time needed for the preparation and submission of a diploma thesis is also included within this period and may not be less than three months. The terms of attendance are included and specified in the Internal Regulation of the program.

### **5.5 Course Syllabuses**

The total number of ECTS Credits required for the acquisition of the MSc diploma amounts to 75 (seventy-five) and is distributed over three periods.

Each module is taught in one semester (1st semester, 2nd semester, summer period) and corresponds to seven and five (7.5) ECTS with the exception of Dissertation which corresponds to thirty (30) ECTS and takes place throughout two training periods (2nd semester and summer period). Face-to-face teaching methods, systems and online applications used in e-learning, intensive courses and any other teaching method deemed appropriate can all be used for the provision of high-quality educational experience.

Up to 85% of the teaching in the curriculum of the MSc "Environmental Planning and Environmental Education" will be conducted via distance teaching method (via Microsoft Teams platform, Zoom platforms) synchronously. Aside its practical benefits, distance teaching method also serves the purposes of this MSc program. Lecture attendance by distance learning has been purposely selected to facilitate postgraduate students who either cannot afford to live in Orestiada throughout the duration of their studies, or work on a full-time basis. The virtual learning environment used for online learning is also used to serve other aspects of the educational process besides lecture such as the use of a digital whiteboard for notes, voting, actions in working groups in separate "rooms", etc.

The educational process can also be carried out using asynchronous online learning methods, that cannot exceed 25% of the credits of the MSc. The current logistical infrastructure offered by D.U.Th., to support studies at both undergraduate and postgraduate levels will additionally be utilized via the use of Open eClass platform. Face-to-face teaching (up to 20%) takes place in the premises of the Department of Forestry and Management of the Environment and Natural Resources as indicated below:

- Computer Room for the Graduate Program
- Presentation Room for the Graduate Program
- K. Sideris Amphitheater

Course attendance is mandatory and it is the responsibility of all instructors to confirm students' presence in all sessions. Course evaluation is undertaken either by written or oral examination, assignment, presentation, report or a combination of the above. The exact form of the assessment is determined by the teacher (s) depending on the nature of the module they teach and students are informed about the evaluation criteria at the beginning of the course. All graduate students must attend and be successfully examined in ten (10) courses in total or in six (6) courses in total and prepare a Dissertation.

## 5.6 Teaching Language and Dissertation

All modules are taught in Greek, but also in English for a certain number of modules in cases when the number of foreign-language postgraduate students per module exceeds five (5). The Dissertation (MSc) is written in Greek and is accompanied by a short summary of approximately 300 words in English. Upon consultation with the supervisor, the write-up of the Dissertation can be done in English and include an extensive summary in Greek.

## 5.7 Academic and Administrative and Support

For the academic year 2022 2023, the members of staff of the Department of Forestry and Management of the Environment and Natural Resources involved in the organization and operation of the MSc program are the following:

- I. **Head of the MSc:** Tsantopoulos Georgios, Professor
- II. **MSc Committee**
  - a. Tsantopoulos Georgios, Professor
  - b. Manolas Evaggelos, Professor
  - c. Korakis Georgios, Associate Professor
  - d. Papakosta Malamati, Assistant Professor
  - e. Andrea Veronika, Assistant Professor
- III. **Graduate Admissions Committee**
  - a. Tsantopoulos Georgios, Professor
  - b. Manolas Evaggelos, Professor
  - c. Korakis Georgios, Associate Professor
  - d. Papakosta Malamati, Associate Professor
  - e. Andrea Veronika, Assistant Professor

The following departmental academic staff members teach modules in the MSc program entitled "Environmental Planning and Environmental Education" for the academic year 2022 2023:

- i. Andrea Veronika, Assistant Professor, Semesters: 1<sup>st</sup>, 2<sup>nd</sup> and Summer Semester
- ii. Arabatzis Garyfallos, Professor, Semesters: 1<sup>st</sup>, 2<sup>nd</sup> and Summer Semester
- iii. Galatsidas Spyridon, Professor, Semesters: 1<sup>st</sup> and 2<sup>nd</sup>
- iv. Kantartzis Apostolos, Assistant Professor, Semesters: 1<sup>st</sup> and Summer Semester
- v. Katagis Thomas, Assistant Professor, Semesters: 2<sup>nd</sup>
- vi. Katsarou Eirene, Teaching Assistant, Semesters: Summer Semester

- vii. Korakis Georgios, Associate Professor, Semesters: 1<sup>st</sup> and Summer Semester
- viii. Kyriazopoulos Apostolos, Professor, Semesters: 1<sup>st</sup>, 2<sup>nd</sup> and Summer Semester
- ix. Manolas Evaggelos, Professor, Semesters: 1<sup>st</sup> and 2<sup>nd</sup>
- x. Papaioannou Georgios, Assistant Professor, Semesters: 2<sup>nd</sup>
- xi. Papakosta Malamati, Associate Professor, Semesters: 1<sup>st</sup>, 2<sup>nd</sup> and Summer Semester
- xii. Paschalidou Anastasia, Associate Professor, Semesters: 1<sup>st</sup> and Summer Semester
- xiii. Tsantopoulos Georgios, Professor, Semesters: 1<sup>st</sup>, 2<sup>nd</sup> and Summer Semester
- xiv. Tsatiris Michail, Assistant Professor, Semesters: Summer Semester
- xv. Bezirgiannidis Athanasios, PhD, part-time instructor, Semesters: 1<sup>st</sup>
- xvi. Tziolas Emmanouel, PhD, part-time instructor, Semesters: 1<sup>st</sup>
- xvii. Siskou Paschalina, PhD, part-time instructor, Semesters: 1<sup>st</sup>
- xviii. Skordoulis Michail, PhD, part-time instructor, Semesters: 2<sup>nd</sup>

## 5.8 Diploma Supplement

The MSc program "Environmental Planning and Environmental Education" grants to the graduates a Diploma Supplement in Greek and English.

The Diploma Supplement is in line with the template developed by the EU, the Council of Europe and UNESCO.CEPES and is an explanatory document providing information on the nature, level, general context of education provided, content and status of the studies which were successfully completed. The Diploma Supplement does not replace the official degree or the detailed transcript of grades granted by the D.U.Th. but includes sufficient information to ensure international transparency and fair academic and professional recognition of the MSc Diploma, as well as additional information. The Diploma Supplement is issued in Greek and English.

## 5.9 Plagiarism

Submission of any part of written graduate coursework entails that the student is obliged to indicate whether he/she has used the work and views of others. Copying is considered a serious academic offense.

Plagiarism is the copying of someone else's published or unpublished work and its unauthorized use without proper reference. The citation of any document, even it that comes from the candidate's own work, without reference, may constitute the reason for the student's expulsion from the program by decision of the Assembly of the Department upon recommendation of his/her supervisor. Any misconduct or violation of academic ethics is referred to the Coordinating Committee of the MSc program which introduces the issue to the Assembly of the Department to be properly addressed.

Offenses of copying or plagiarism (more than 25% for copying more than three (3) consecutive words, checked with plagiarism software verification) are also considered to be serious infringements, as is any violation of the provisions on intellectual property committed by a postgraduate student when preparing his/her written coursework or dissertation.

The Department of Forestry and Management of the Environment and Natural Resources adopts the guide against plagiarism drafted by the MODIP DUTH, available at [https://fmenr.duth.gr/ the section/guide against plagiarism/](https://fmenr.duth.gr/section/guide%20against%20plagiarism/).

## 6 Academic Calendar 2022-2023

### WINTER SEMESTER

#### Teaching Sessions

Monday 03-10-2022 until Friday 23-12-2022

Monday 09-01-2023 until Friday 13-01-2023

#### Exam Period

Monday 16-01-2023 until Friday 03-02-2023

#### Public Holidays

Friday 28-10-2020 (National Day)

Thursday 17-11-2021 (Polytechnic Anniversary)

Friday 06-01-2021 (Religious Feast of the Epiphany)

Monday 30-01-2021 (Religious Feast)

#### Christmas and New Year Holidays

Saturday 24-12-2022 until Friday 06-01-2023

### SUMMER SEMESTER

#### Teaching Sessions

Monday 13-02-2023 until Friday 07-04-2023

Monday 24-04-2023 until Friday 26-05-2023

#### Exam Period

Thursday 01-06-2023 until Wednesday 21-06-2023

#### Public Holidays

Friday 24-02-2023 έως Monday of Lent 27-02-2023

Saturday 25-03-2023 (National Day)

Monday 01-05-2023 (May 1<sup>st</sup>)

Monday 05-06-2023 (Religious Feast)

#### Easter Holiday

Good Monday 10-04-2023 until Friday 21-04-2023

#### Local Holidays

Saturday 25-02-2023 (Religious Feast)

**Re-sit Exam Period for both semesters**

Friday 01-09-2023 until Friday 22-09-2023

**Summer Holidays**

Saturday 01-07-2023 until Thursday 31-08-2023

## 7 Departmental Quality Assurance Policy

The Department of Forestry and Management of the Environment and Natural Resources, in collaboration with the Quality Assurance Unit (QAU) at Democritus University of Thrace (DUTH) and the services available in our institution aligned the Quality Policy of the Undergraduate Program of Studies (MSc) and the Quality Policy of the Postgraduate Program of Studies (MSc) with the Quality Policy of the Democritus University of Thrace.



### Mission

The mission of the department is to:

- a. Provide training in the science of Forestry and Management of the Environment and Natural Resources.
- b. Implement important and innovative research on the sustainable management of forests, forest areas and the environment, biodiversity, the effects of climate change, the preservation and protection of the environment.
- c. Improve terrestrial ecosystems and wildlife for the benefit of man and nature.
- d. Provide specialized knowledge, cultivate critical, analytical and synthetic thinking and develop the scientific approach to environmental and social issues familiarizing students with modern research methodology and new technology at a postgraduate level.

### Program Curriculum

According to the internal regulations of the Department, all modules are divided into ten independent academic semesters and are taught on a weekly basis. The minimum number of teaching weeks and credits per semester is determined in accordance with the relevant provisions of the current legislation. Following the regulations, successful attendance of all compulsory and elective modules of the curriculum, successful completion of the dissertation and successful completion of the internship lead to the award of an Integrated Master in the specialty of Forestry, level seven (7) of the National and European Qualifications Framework (Government Gazette 4268/2018 vol. B').

The curriculum of all three postgraduate programs that are currently implemented in the Department are also determined by current regulation as follows:

- i. Inventory and Monitoring of Forests and Forest Areas and Protected Areas
- ii. Conservation and restoration of terrestrial natural ecosystems
- iii. Environmental Planning and Environmental Education



The Department has adopted the ECTS credit system. There are course outlines for all taught modules where all 13 weekly lectures are listed and additional teaching activities are fully specified with their corresponding ECTS credits. A Diploma Supplement is also granted by the Department.

### **Running of the Department**

The General Assembly of the Department faculty members is convened regularly and all decisions made during its meetings aim to ensure proper management of the Department. For this reason, the Department has established a number of committees such as O.M.E.A., the Curriculum Committee, the Internship Committee, the Coordinating Committees of the Postgraduate Programs, etc.

The Department has internal regulatory rules, a study guide, postgraduate curriculum regulations, internship regulation, an examination conduct regulation, postgraduate studies regulations, a doctoral thesis and a post-doctoral preparation regulation. The Department follows the regulations of D.U.Th. regarding the international mobility of students and academic staff members.

The logistical infrastructure of the Department is renewed by the funding provided by D.U.Th. regular budget, by the revenues of postgraduate programs and by research programs undertaken by faculty members.

### **Strategic Planning**

All stakeholders (teaching staff, students, administrative staff) are actively involved in the preparation of the strategic plan of the Department. Particular emphasis is placed on the alignment of the content of the provided education with the specifications set by D.U.Th., the national needs and the international challenges.

The aims of the Department are to provide teaching and high-quality research within a modern and changing environment, to cultivate students' critical competence and interdisciplinary approach and to create a new generation of Foresters, equipped with qualifications and skills in cutting-edge subjects of Forestry Science. Particular emphasis is placed on research via a series of research programs, as well as on the upgrading of human resources, via internal evaluation, as well as on the recruitment of new faculty members. The Department also aims at the upgrade of its infrastructure and services to social stakeholders. Finally, program curricula at the undergraduate and graduate programs are constantly checked and redefined so as their contents can be adapted in accordance with modern scientific trends and needs of society and the labour market.

The Department also focuses on the level of postgraduate studies provided, whose strategic planning also falls within the scope and overall mission of DUTH. In particular, the strategic objectives of the Department are in line with the general objectives set by the university and include:

- a. Enhancement-upgrade of teaching
- b. Enhancement-upgrade of research and innovation
- c. Improvement of the amount and uptake of funding
- d. Enhancement-upgrade of the human resource
- e. Enhancement-upgrade of and improvement of the management of the infrastructures and services provided by the institution.
- f. Strengthening, improvement and development of postgraduate programs

## 8 Program Curriculum

### Specialization A': «Environmental Planning and Management of Natural Resources»

<b>SEMESTER 1</b>				
<b>CODE</b>	<b>MODULE</b>	<b>TYPE OF MODULE</b>	<b>ECTS</b>	<b>HOURS</b>
1	Environmental Policy and Environmental Governance	Compulsory	7,5	3
2	Biodiversity of Terrestrial Ecosystems	Compulsory	7,5	3
3	Climate Change: Adaptation and Mitigation	Compulsory	7,5	3
4	Research Methodology	Elective	7,5	3
5	Circular Economy and Sustainable Development	Elective	7,5	3
<b>ECTS TOTAL – SEMESTER 1</b>			30	

<b>SEMESTER 2</b>				
<b>CODE</b>	<b>MODULE</b>	<b>TYPE OF MODULE</b>	<b>ECTS</b>	<b>HOURS</b>
1	Management of Natural Resources	Compulsory	7,5	3
2	Technical Projects and Natural Environment	Compulsory	7,5	3
3	Sustainable Management of Mountain Water Basins	Elective	7,5	3
4	Geographical Information Systems (GIS) in Natural Resources Management	Elective	7,5	3
5	Dissertation	Elective	15	3
<b>ECTS TOTAL – SEMESTER 2</b>			30	

<b>SUMMER SEMESTER</b>				
<b>CODE</b>	<b>MODULE</b>	<b>TYPE OF MODULE</b>	<b>ECTS</b>	<b>HOURS</b>
1	Ecosystems Services	Elective	7,5	3
2	Management of Protected Areas and Environmental Licensing	Elective	7,5	3
3	Dissertation	Elective	15	
<b>ECTS TOTAL – SUMMER SEMESTER</b>			15	

### Specialization B': «Environmental Education and Communication»

<b>SEMESTER 1</b>				
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CODE	MODULE	TYPE OF MODULE	ECTS	HOURS
1	Environmental Policy and Environmental Governance	Compulsory	7,5	3
2	Didactics of Environmental Science	Compulsory	7,5	3
3	Environmental Communication, Media and Public Opinion	Compulsory	7,5	3
4	Environment, Society and Volunteerism	Elective	7,5	3
5	Research Methodology	Elective	7,5	3
<b>ECTS TOTAL – SEMESTER 1</b>			30	

SEMESTER 2				
CODE	MODULE	TYPE OF MODULE	ECTS	HOURS
1	Education for Sustainable Development	Compulsory	7,5	3
2	Principles and Methods of Environmental Management	Compulsory	7,5	3
3	Sustainable Development	Elective	7,5	3
4	Public Relations Strategies and the Environment	Elective	7,5	3
5	Dissertation	Elective	15	
<b>ECTS TOTAL – SEMESTER 2</b>			30	

SUMMER SEMESTER				
CODE	MODULE	TYPE OF MODULE	ECTS	HOURS
1	Ecosystems Services	Elective	7,5	3
2	Environmental Problems and Sustainability	Elective	7,5	3
3	Dissertation	Elective	15	
<b>ECTS TOTAL – SUMMER SEMESTER</b>			15	

## 8.1 Program Module Outlines

### 8.1.1 Semester 1 - Modules

#### **Specialization Area A': Environmental Planning and Management of Natural Resources**

##### **I. Environmental Policy and Environmental Governance**

Instructors: Tsantopoulos, G. Professor  
 Andrea, V. Assistant Professor

The module covers the following topics:

Historical development and formulation of environmental policy; environmental decision-making processes and stakeholder involvement in effective environmental protection; environmental policy and

citizens, Non-Governmental Environmental Organizations; analysis of contemporary environmental problems, environmental trends and problems in Europe; the internationalization of the environment; the concept of environmental governance' global environmental governance, international environmental partnerships, conventions, agreements and treaties on the environment, biodiversity and natural resources; forms and mechanisms of environmental governance; developed and developing countries; land use policies; international institutions and the European Union; supervision and regulatory intervention; environmental law in Greece, in the European Union and internationally; environmental action programs and evaluation; policies for the protection and promotion of protected natural areas; environmental Communication and Interpreting; business and the scientific community; the role of research and innovation; institutional weaknesses in the governance system; empowerment of the institutional governance framework for sustainable development.

Upon completion of the module, students will be able to:

- understand the importance of environmental problems and be able to suggest possible solutions
- understand the complex and interdisciplinary nature of environmental problems
- understand the need for effective policies, strategies and individual measures at local, national, European and international level so that problems be prevent and properly addressed
- understand that all efforts to address environmental problems should be the result of interdisciplinary cooperation and the involvement of all stakeholders in decision-making processes

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/OPE02224/>

## II. Biodiversity of Terrestrial Ecosystems

<u>Instructors:</u> Kyriazopoulos, A.	Professor
Korakis, G.	Associate Professor
Papakosta, M.	Associate Professor

The module covers the following topics:

Introductory concepts, historical background; the importance of biodiversity; levels of biodiversity; measurement of biodiversity; indicators of diversity; quantification and assessment of biodiversity; biodiversity in grassland ecosystems; effect of grazing on biodiversity; management of endangered wildlife species; characteristics of rare species; impact of invasive alien species on biodiversity; protected object, important, endangered and rare species of flora and habitat types, priority species, conservation status of species and habitat types; method of research and collection of flora and vegetation data; evaluation of data, management proposals, monitoring biodiversity legislation, Natura 2000 network; case studies.

The aim of the module is knowledge acquisition related to the biodiversity of terrestrial ecosystems. In particular, the module aims to provide the theoretical background of biodiversity as a concept, the most important factors affecting it, measurement methods as well as the measures and policies adopted for its preservation.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425296/>

### **III. Climate Change: Adaptation and Mitigation**

Instructors: Paschalidou, A.

Associate Professor

The module covers the following topics:

Introduction to atmospheric sciences: Atmosphere, Weather and Climate; natural mechanisms of climate change; paleoclimatic changes; anthropogenic intervention in the climate system; climate trends; climate change scenarios and projections for the future; impact on agricultural production and food security impact on forest ecosystems; impact on public health; adaptation and mitigation.

Upon completion of the module, participants will be able to:

- identify the difference between natural vs. man-made greenhouse effect,
- tell the difference between the concepts of adaptation, vulnerability and resistance exposure,
- understand and interpret the predictions of climate models
- understand the volatility of climate studies
- search, analyze and synthesize data and information, using the necessary technologies
- practice criticism and self-criticism
- work in an interdisciplinary environment
- generate new research ideas
- development of free, creative and inductive thought
- show their respect to the natural environment

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425297/>

### **IV. Research Methodology**

Instructors: Galatsidas, S.

Professor

Kyriazopoulos, A.

Professor

The module covers the following topics:

Aims and logic of scientific research; social research – environmental research; research tools and research techniques; descriptive and analytical statistics; data collection, data processing and analysis; interpretation and presentation of research results; literature search and review; organization and writing of research paper.

The aim of the course is to familiarize students with key methods of data-gathering, organization, presentation and statistical analysis and the techniques used for searching and processing scientific literature as well as organizing and writing a research paper.

Upon completion of the module, students will be able to:

- understand the basic concepts of statistics and the key methods of data-gathering, organization and presentation.
- know how to use tools and statistical analysis techniques for data analysis in empirical studies
- distinguish deductive from inductive methods of analysis and choose the most appropriate method for estimating parameters and drawing statistical conclusions.

- use the appropriate tools to search for scientific literature, select the bibliography pertinent to the purpose of his research and synthesize scientific knowledge to serve the objectives of his own empirical study.
- combine his/her knowledge of statistical analyses with the literature review and present a research topic in a well-structured manner.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425298/>

## **V. Circular Economy and Sustainable Development**

Instructors: Arabatzis, G.

Professor

The module covers the following topics:

Introduction to the concepts of circular economy and sustainable development; from the linear to the circular economy; the need to transition to the new era of sustainability; the development of an economy friendly to the environment and society; Circular Economy and Entrepreneurship; European Strategy for the Circular Economy; production factors, organization, analysis and their impact on sustainable development; the distribution and scarcity of resources; socio-economic impact of the use of natural resources; indicators of sustainable development. Population, economic development, the environment and the countryside; development and the Third World; renewable energy sources; financial instruments of the European Union; the European Strategy for Sustainable Development; the 17 Sustainable Development Goals of the United Nations; business and sustainable development; case studies.

The aim of the course is to familiarize students with the key concepts of circular economy and sustainable development and the need to transition to a new era of sustainability.

Upon completion of the module, students will be able to:

- understand the concepts of sustainable development and circular economy,
- combine their knowledge and examine the possibilities of using financial tools in the circular economy and sustainable development
- understand the resource constraints and socio-economic impacts of natural resource use
- use available technology to gather data on sustainable development, process, analyze it and draw conclusions to improve its implementation
- understand and appreciate the importance of circular economy and sustainable development in the development of a country
- utilize their knowledge to improve the environmental performance of businesses

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425293/>

## **Specialization B': Environmental Education and Communication**

### **i. Environmental Policy and Environmental Governance**

Instructors: Tsantopoulos, G.

Professor

Andrea, V.

Assistant Professor

The module covers the following topics:

Historical development and formulation of environmental policy; environmental decision-making processes and stakeholder involvement in effective environmental protection; environmental policy and citizens, Non-Governmental Environmental Organizations; analysis of contemporary environmental problems, environmental trends and problems in Europe; the internationalization of the environment; the concept of global environmental governance, international environmental partnerships, conventions, agreements and treaties on the environment, biodiversity and natural resources; environmental law in Greece, in the European Union and internationally; environmental action programs undertaken on a national, European and international level; policies for the protection and promotion of protected natural areas; empowerment of the institutional governance framework for sustainable development via research and innovation; lessons learned and experiences from the implementation of environmental governance systems.

The module aims to enable students to comprehend and use concepts related to the most important environmental problems of the planet as well as understand the need for effective policies to address them at a local, national and international environmental governance level.

Upon completion of the module, students will be able to:

- understand the importance of environmental problems and be able to suggest possible solutions
- understand the complex and interdisciplinary nature of environmental problems
- understand the need for effective policies, strategies and individual measures at local, national, European and international level so that problems be prevent and properly addressed
- understand that all efforts to address environmental problems should be the result of interdisciplinary cooperation and the involvement of all stakeholders in decision-making processes

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/OPE02224/>

## **ii. Didactics of Environmental Science**

Instructors: Manolas, E.

Professor

The module covers the following topics:

What is Teaching?; basic principles and theoretical approaches to teaching and learning; curricula; teaching models; the five-stage model; Kolb's model; Gross's model; the model of four learning modes; applications of didactic models to environmental issues by the teacher (I); applications of didactic models to environmental issues by the teacher (II); applications of didactic models to environmental issues by the teacher (III); applications of teaching models to environmental issues by students.

The module offers the required knowledge for those who wish in the future to engage in teaching Environmental Science as a full-time, part-time teachers in primary or secondary state education. By the end of the course, students are expected to be able to design, implement and evaluate a variety of Environmental Science teaching models and techniques.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425284/>

### **iii. Environmental Communication, Media and Public Opinion**

<u>Instructors:</u> Tsantopoulos, G.	Professor
Andrea, V.	Assistant Professor

The module covers the following topics:

Historical background and characteristics of Environmental Education; environmentally responsible behavior and assessment models; relationships between the variables that determine the formation of environmentally responsible behavior; environmental sensitivity; forms of Environmental Education; Mass Media and Environmental Education; factors influencing the functioning of Mass Media; the impact of Mass Media; Mass Media as environmental educators; Mass Media and environmental awareness; Mass Media and environmental information; public opinion as an object of political communication; different views of public opinion, in relation to political culture and the democratic public sphere; citizen involvement in decision-making processes; factors encouraging and determining participation; citizen involvement in environmental protection.

The module aims to enable students understand the process of Environmental Communication and its correlation with formal, non-formal education and awareness as well as the way and techniques that Environmental Communication can ensure the promotion of the most appropriate environmental decisions and legislation and contribute to a dynamic change in our thinking and the way we materialize our desires in case we want to protect of the planet and enhance our quality of life.

Upon completion of the module, students will be able to:

- understand the influence of socio-economic policies on the formation of environmental problems
- identify the potential environmental impacts of consumer habits
- implement the appropriate Environmental Communication strategy to change behavior, ultimately aiming towards environmental awareness
- design plans for Environmental Communication

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/GEO102/>

### **iv. Environment, Society and Volunteerism**

<u>Instructors:</u> Manolas, E.	Professor
Tsantopoulos, G.	Professor
Andrea, V.	Assistant Professor
Siskou, P.	Part-time teaching assistant

The module covers the following topics:



Environment and society, man-nature interaction; key international and national environmental issues; basic concepts of environmental science used in a wide social context (biodiversity, ecological footprint); the value and meaning of volunteerism; historical background; categories of voluntary actions; international volunteerism programs; contribution of volunteerism in solving environmental issues; natural disasters and volunteerism; social impact of environmental volunteering, causes; institutional framework for environmental volunteerism, bodies, legislation, operating framework in Greece and in the EU; organization of voluntary actions, coordination of volunteers, conflict management; NGOs and volunteerism, evaluation of actions and programs; Case studies: Greenpeace, Environmental Defense Fund, Friends of the Earth International World Wildlife Fund.

The module will enable students to understand the concept of volunteerism and the necessity of developing the culture of volunteerism to consolidate the bonds of civil society. Upon completion of the course, students are expected to develop skills that will help them strengthen the institution of environmental volunteerism and they will be able to participate, design and implement voluntary programs.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425294/>

#### **v. Research Methodology**

Instructors: Galatsidas, S.                      Professor  
Kyriazopoulos, A.                                  Professor

The module covers the following topics:

Aims and logic of scientific research; social research – environmental research; research tools and research techniques; descriptive and analytical statistics; data collection, data processing and analysis; interpretation and presentation of research results; literature search and review; organization and writing of research paper.

The aim of the course is to familiarize students with key methods of data-gathering, organization, presentation and statistical analysis and the techniques used for searching and processing scientific literature as well as organizing and writing a research paper.

Upon completion of the module, students will be able to:

- understand the basic concepts of statistics and the key methods of data-gathering, organization and presentation.
- know how to use tools and statistical analysis techniques for data analysis in empirical studies
- distinguish deductive from inductive methods of analysis and choose the most appropriate method for estimating parameters and drawing statistical conclusions.
- use the appropriate tools to search for scientific literature, select the bibliography pertinent to the purpose of his research and synthesize scientific knowledge to serve the objectives of his own empirical study.
- combine his/her knowledge of statistical analyses with the literature review and present a research topic in a well-structured manner.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425298/>

### 8.1.2 Semester 2 - Modules

#### **Specialization A': Environmental Planning and Management of Natural Resources**

##### **VI. Management of Natural Resources**

Instructors: Galatsidas, S. Professor  
Kyriazopoulos, A. Professor  
Papakosta, M. Associate Professor

The module covers the following topics:

Ecology and economics; interaction of nature and economic system; natural ecosystem and natural resources; framework of European and international policies for the sustainable management of natural resources; rationale and scientific basis for sustainable management; economic, social and environmental criteria for sustainable management; assessment methods of natural resources; planning of natural resource management; framework for analysis of alternative measures and management decision-making; practical applications and case studies of natural resource management.

The aim of the module is to enable students understand the key elements of the ecosystem and the economic system and their interactions, get to know the framework of European and international policies for sustainable management of natural resources, evaluate sustainability by environmental, social and economic criteria, comprehend the need for rational planning and evaluation of alternative management decisions.

Upon completion of the module, students will be able to:

- understand the fundamentals of the natural ecosystem and economic system and their interactions.
- understand the framework of European and international policies for sustainable management of natural resources as well as the rationale and the scientific basis for sustainable management.
- distinguish environmental, social and economic criteria and evaluate alternative management decisions of natural resources against them.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425300/>

##### **VII. Technical Projects and Natural Environment**

Instructors: Kantartzis, A. Assistant Professor

The module covers the following topics:

Environmental analysis and practices; control of compliance with environmental conditions; impact of projects on the natural environment; examples of projected impacts on the natural environment by category of projects and activities; forest road network: design and specifications; forest road network

management programs; maintenance and repair programs; reducing the risk of the forest road network from natural disasters; construction equipment – construction materials; forest protection projects: specifications, OMOE, management of forestry projects; safety plans of technical projects – cost – financing, research of forest management practices.

The aim of the module is to aid students delve into the philosophy of forestry and infrastructure management projects, to study the effects of technical projects on the natural environment, learn the significance of forestry projects for the protection of various development projects (built for land improvement, transport, generation of hydropower and water supply) or residential areas and be informed about new forestry management programs.

Students are expected to acquire both theoretical and practical knowledge related to the fundamental principles and regulations with respect to technical project safety plans and the characteristics of technical forestry management practices. They will also be informed about the design and applications used for risk reduction for infrastructures, especially road networks from natural disasters and they will study examples of projected impacts on the natural environment depending on the category of projects and activities undertaken.

Upon completion of the module, students will be able to:

- Familiarize themselves with the basic principles of technical projects and the problems associated with their design and construction
- Implement studies of various technical projects based on the specifications and current legislation
- Combine technical, economic and environmental requirements leading to a feasible and high-quality construction
- To design road construction solutions fully harmonized with our natural environment.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425301/>

### **VIII. Sustainable Management of Mountain Water Basins**

Instructors: Papaioannou, G.

Assistant Professor

The module covers the following topics:

Concept and components of water resources management; definitions – scientific areas – basic background; land use changes and their impact; availability of water resources; estimation of surface and groundwater potential; combined management of underground and surface water; integrated watershed management; economic evaluation of development scenarios; management techniques – mathematical programming methods; operational management of water body and infrastructure; optimal reservoir operation; dealing with extreme events; flood and drought management; impact assessment of water resource development projects and programs; water resources at supranational level; transnational cooperation and dispute settlement mechanisms; examples of water resources management in developed, developing, and semi-developed countries; applications – case studies.

The aim of the course is to enable students acquire knowledge about the sustainable management of mountainous watersheds. Specifically, the course provides a theoretical background for the management

of water resources, their availability, the impact of land use changes on them, the assessment of water potential, as well as the management of a water body.

The intended learning outcomes for students upon completion of the module can be summarized as follows:

- Familiarization with River Basin Management Plans
- Understanding of the key parameters involved in water resource management.
- Ability to solve water balance problems and use water balance models
- Ability to assess crop water needs using different irrigation modes and crop rotation scenarios
- Understanding concepts such as integrated water resource management.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425302/>

## **IX. Geographical Information Systems (GIS)**

Instructors: Katagis, Th.

Assistant Professot Καθηγητής

The module covers the following topics:

Introduction to Geographic Information Systems; data import; data homogenization; vector structures; data structures – raster; generalization in Geographic Information Systems; spatial databases; spatial interpolation; map algebra; three-dimensional applications; applications of Geographic Information Systems.

The aim of the course is to introduce students to the science of GIS focusing on key concepts, the processing and analysis of geospatial data, and the use of available tools and methods in applications related to the exploitation and management of natural resources. The intended learning outcomes for students upon completion of all sections of the module can be summarized as follows:

- Understanding of key concepts and principles in GIS.
- Ability to process and analyze different data structures and models.
- Ability to organize, import and manage spatial data in a GIS environment
- Familiarity with specialized GIS software followed by practical training
- Ability to solve simple and complex spatial analysis problems in issues related to natural resource management
- Ability to compile thematic forest information maps

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425303/>

## **Specialization B´: Environmental Education and Communication**

### **vi. Education for Sustainable Development**

Instructors: Manolas, E.

Professor

The module covers the following topics:

The Environmental Movement; genesis and evolution of environmental education; Education for Sustainable Development; differences in Environmental Education and Education for Sustainable Development; the role of the Environmental Educator; Environmental Education Programs; evaluation of Environmental Education Programs; student paper presentations.

The module on Education for Sustainable Development aims to enable students identify environmental problems, plan and implement learning activities to develop positive attitudes towards the environment and responsible environmental behaviour.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/GEO124/>

## **vii. Principles and Methods of Environmental Management**

Instructors: Galatsidas, S.

Professor

The module covers the following topics:

Structure and natural processes of natural ecosystems; key functional features of the economic system; benchmarking of natural ecosystem and economic system functions; economic, social and environmental principles in environmental management; functions, goods and benefits of the ecosystem; valuation of the goods and benefits of the ecosystem; planning and organization in environmental management; practical applications and case studies of environmental management.

The aim of the course is to enable students understand the key elements of the ecosystem and the economic system and their interactions, the economic, social and environmental principles for environmental management, the distinction between functions and services of the ecosystem and their evaluation, familiarize themselves with the methods and inventory tools and analysis of the natural environment and practical applications via the study of environmental management cases.

Upon completion of the module, students will be able to:

- Understand the key elements of the natural ecosystem and the economic system and their interactions
- Identify with the economic, social and environmental principles and understands the need for their balanced application in environmental management.
- Understand the complexity of analyses necessary to manage environmental issues and the contribution of modern technology to management.
- Understand the need for an interdisciplinary approach and the contribution of all stakeholders in the management of environmental issues.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/OPE02184/>

### **viii. Sustainable Development**

Instructors: Arabatzis, G.

Professor

The module covers the following topics:

Symptoms, causes, dimensions and effects of the environmental and economic crisis; major threats to sustainable development in Europe and the world; factors of production, organization, analysis and their impact on sustainable development; the allocation and scarcity of resources; socio-economic impact of the use of natural resources; sustainable development indicators; population, economic development, environment and countryside; developmental phenomenon and Third World; globalization; financial tools of the European Union; the 17 UN Sustainable Development Goals; a European strategy for sustainable development; business and sustainable development; case studies.

The aim of the course is to familiarize students with key concepts of sustainable development, the impact of environmental and economic crisis and the need to transition to a new era of sustainability.

Upon completion of the module, students will be able to:

- Understand the concept of sustainable development
- Combine their knowledge and examine the possibilities of using financial tools in sustainable development
- Understand the resource constraints and socio-economic impacts of natural resource use
- Use available technology to gather sustainable development data, process, analyze it and draw conclusions to improve implementation
- Understand and appreciate the importance of sustainable development in the development of a country
- Utilize their knowledge to improve environmental performance of businesses

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/modules/announcements/?course=1425299>

### **ix. Public Relations Strategies and Environment**

Instructors: Tsantopoulos, G.

Professor

Andrea, V.

Assistant Professor

The module covers the following topics:

Historical review; definition of Public Relations; characteristics of the Director of the Board of Directors and the corresponding department; the relationship between Advertising Marketing and Public Relations; the commons of Public Relations; choice of Means of Communication; relations with the media; means for the implementation of the communication strategy; Public Relations programs; evaluation of Public Relations programs; Public Relations: a neglected science for environmental agents; practical applications in environmental agencies.

The module presents the theory and applications of Public Relations in agencies related to natural environment. Emphasis is placed on the understanding of the concept of Public Relations and the way it is differentiated from other forms of communication as well as on the planning of related activities.

Upon completion of the module, students will be able to:

- Know the process and the constituent parts of communication
- Know the differentiation between Public Relations and other forms of communication
- Know the different forms of communication and use them appropriately

- Compile appropriate Public Relations and Environmental Crisis Management plans
- Organize press conferences and special events
- Integrate environmental crisis management plans within long-term Public Relations programs.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/OPE02109/>

### 8.1.3 Summer Semester Modules

#### **Specialization A': Environmental Planning and Management of Natural Resources**

##### **X. Ecosystems Services**

<u>Instructors:</u> Arabatzis, G.	Professor
Kyriazopoulos, A	Professors
Paschalidou, A.	Associate Professor
Korakis, G.	Associate Professor

The module covers the following topics:

Ecosystems, functions and services; historical retrospection, concepts; categorization of ecosystem services; spatial and institutional consideration of ecosystem services; mapping and evaluation of ecosystem services; quantification and evaluation of ecosystem services; opening up markets for ecosystem services; limitations and criticism in the assessment of ecosystem functions; social impacts of ecosystem services; experiential perception and recording of ecosystem functions and services with on-site visits to specific ecosystems and bodies that utilize these services; prioritization, coordination, conflict resolution; European and International Strategy for Ecosystem Services; recording of problems, evaluation of ecosystem services in-situ, research action (project).

The aim of the course is to familiarize students with the nature and role of ecosystems services to achieve sustainable development.

Upon completion of the module, students will be able to:

- Understand the key concepts of ecosystem services assessment
- Use ecosystem services classification systems
- Apply the approaches and tools of the assessment and economic valuation of ecosystem services
- Use available technology to gather data on ecosystems services, process, analyze and draw conclusions to improve them.
- Understand and appreciate the importance of ecosystems services in the development of a country
- Coordinate and implement studies and surveys for the assessment and economic valuation of ecosystems services.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425288/>

##### **XI. Management of Protected Areas and Environmental Licensing**

<u>Instructors:</u> Kyriazopoulos, A.	Professor
Korakis, G.	Associate Professor
Kantartzis, A.	Assistant Professor
Papakosta, M.	Associate Professor

The module covers the following topics:

National parks and protected areas; categories, purpose and significance; networks of protected areas, transnational cooperation; Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); management bodies of protected areas; status, responsibilities, design, preparation and implementation of management plans; Special Management Plans and Special Environmental Studies; guarding structures and role of the Forest Service; activities and projects within protected areas; environmental licensing procedure; Special Ecological Assessment (EDA); Exceptions; Environmental Impact Assessment (EIA).

The aim of the course is to:

- Familiarize students with the general framework currently used for the operation and purpose for the management of protected areas.
- Introduce students to the process of addressing natural environment management issues adopting specific measures and actions
- Introduce students to the general terms and procedures pertinent to environmental licensing.

Upon completion of the module, students will be able to:

- Be familiar with the key provisions concerning protected areas and particularly the Natura 2000 network in the context of other relevant EU policies and initiatives related to forest habitats.
- Help maintain or, where appropriate, restore habitats and species of European importance to a favorable conservation status throughout the European Union.
- Understand the new national model for management and administration for the protected areas in Greece and use tools for the formulation and implementation of environmental policies.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425305/>

### **Specialization B': Environmental Education and Communication**

#### **x. Ecosystems Services**

<u>Instructors:</u> Arabatzis, G.	Professor
Kyriazopoulos, A.	Professor
Paschalidou, A.	Associate Professor
Korakis, G.	Associate Professor

The module covers the following topics:

Ecosystems, functions and services; historical retrospection, concepts; categorization of ecosystem services; spatial and institutional consideration of ecosystem services; mapping and evaluation of ecosystem services; quantification and evaluation of ecosystem services; opening up markets for ecosystem services; limitations and criticism in the assessment of ecosystem functions; social impacts of ecosystem services; experiential perception and recording of ecosystem functions and services with on-site visits to specific ecosystems and bodies that utilize these services; prioritization, coordination,



conflict resolution; European and International Strategy for Ecosystem Services; recording of problems, evaluation of ecosystem services in-situ, research action (project).

The aim of the course is to familiarize students with the nature and role of ecosystems services to achieve sustainable development.

Upon completion of the module, students will be able to:

- Understand the key concepts of ecosystem services assessment
- Use ecosystem services classification systems
- Apply the approaches and tools of the assessment and economic valuation of ecosystem services
- Use available technology to gather data on ecosystems services, process, analyze and draw conclusions to improve them.
- Understand and appreciate the importance of ecosystems services in the development of a country
- Coordinate and implement studies and surveys for the assessment and economic valuation of ecosystems services.

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425288/>

#### **xi. Environmental Problems and Sustainability**

<u>Instructors:</u> Tsantopoulos, G.	Professor
Tsatiris, M.	Assistant Professor
Andrea, V.	Assistant Professor
Katsarou, E.	Teaching Assistant

The module covers the following topics:

Key environmental issues: the concept of geographical scale; causes of environmental problems; environmental, social, economic, and cultural dimensions of environmental problems; impact of environmental problems on the natural, social and economic environment; environmental accidents and environmental crisis management; future scenarios for the restoration, resilience and adaptability of species and their ecosystems; suggested solutions and good practices to address environmental problems; Case studies.

The aim of the module is to enable students understand the multi-faceted character of environmental problems along with the current theories available for their solution. Issues such as pollution, biodiversity, air quality and how they affect our health and quality of life are discussed. The focus lies on a solid understanding of the principles and processes underlying the structure and functioning of the environment and of the sustainability principles.

Upon completion of the module, students will be able to:

- Understand the principles and functioning procedures of the environment
- Evaluate the anthropogenic effects of environmental pollution and deal rationally with their consequences based on the criterion of sustainability

- Acquire the knowledge and skills necessary for the understanding and approach of environmental problems in an interdisciplinary manner

Teaching Method: 3 45-minute teaching sessions per week

E-class webpage (Url): <https://eclass.duth.gr/courses/1425304/>

## 8.2 Expected Learning Outcomes

The MSc in Environmental Planning and Environmental Education aims to provide a high-quality education to postgraduate students, so that they can combine knowledge on a theoretical and applied level with experience and academic research in order to improve their professional qualifications and enrich their professional profile by getting acquainted with new interdisciplinary approaches in the fields of environmental planning and natural resource management (Specialization A) and environmental education and communication (Specialization B). More specifically, this MSc program:

- provides students with specialized knowledge
- cultivates critical, analytical thinking and synthetic thinking,
- develops the scientific approach to issues related to the areas of environmental planning and management of natural resources as well as environmental education and communication
- offers the opportunity to students to familiarize with modern research methodology and new technologies.

**Specialization A ‘Environmental Planning and Management of Natural Resources’** aims to provide students with specialized knowledge, cultivate critical, analytical and synthetic thinking and develop the scientific approach to issues related to environmental planning and management of natural resources, offering the opportunity to students to familiarize with modern research methodology and new technologies and contributing to sustainable development. Upon completion of their studies, Specialization A students will be able to:

- understand the diverse research techniques and different methods for data processing and analysis used in environmental planning and natural resource management
- critically process scientific papers and select the scientific methodology to conduct their own research
- actively participate as executives of the public and private sector in the sustainable development and enhancement of the quality of life for the citizens in this country.

**Specialization B ‘Environmental Education and Communication’** aims to provide students with specialized knowledge, cultivate critical, analytical and synthetic thinking and develop the scientific approach to issues related to environmental planning and management of natural resources, offering the opportunity to students to familiarize with modern research methodology and new technologies and contributing to sustainable development. Upon completion of their studies, Specialization B students will be able to:

- understand the diverse research techniques and different methods for data processing and analysis used in environmental education and environmental communication
- critically process scientific papers and select the scientific methodology to conduct their own research

- actively participate as executives of the public and private sector in the sustainable development and enhancement of the quality of life for the citizens in this country.

## Useful Links

MsSc «Environmental Planning and Environmental Education»

<http://env-edu.fmenr.duth.gr/>

Regulation for the Academic Advisor in the MSc «Environmental Planning and Environmental Education»

<http://env-edu.fmenr.duth.gr/>

PhD Regulation Guide

<https://fmenr.duth.gr/διδασκτορικά/κανονισμός-διδασκτορικών-σπουδών/>

Post-doctoral Research

<https://fmenr.duth.gr/διδασκτορικά/phd/>

Anti-plagiarism Guide

<https://fmenr.duth.gr/το-τμήμα/οδηγός-ενάντια-στη-λογοκλοπή/>