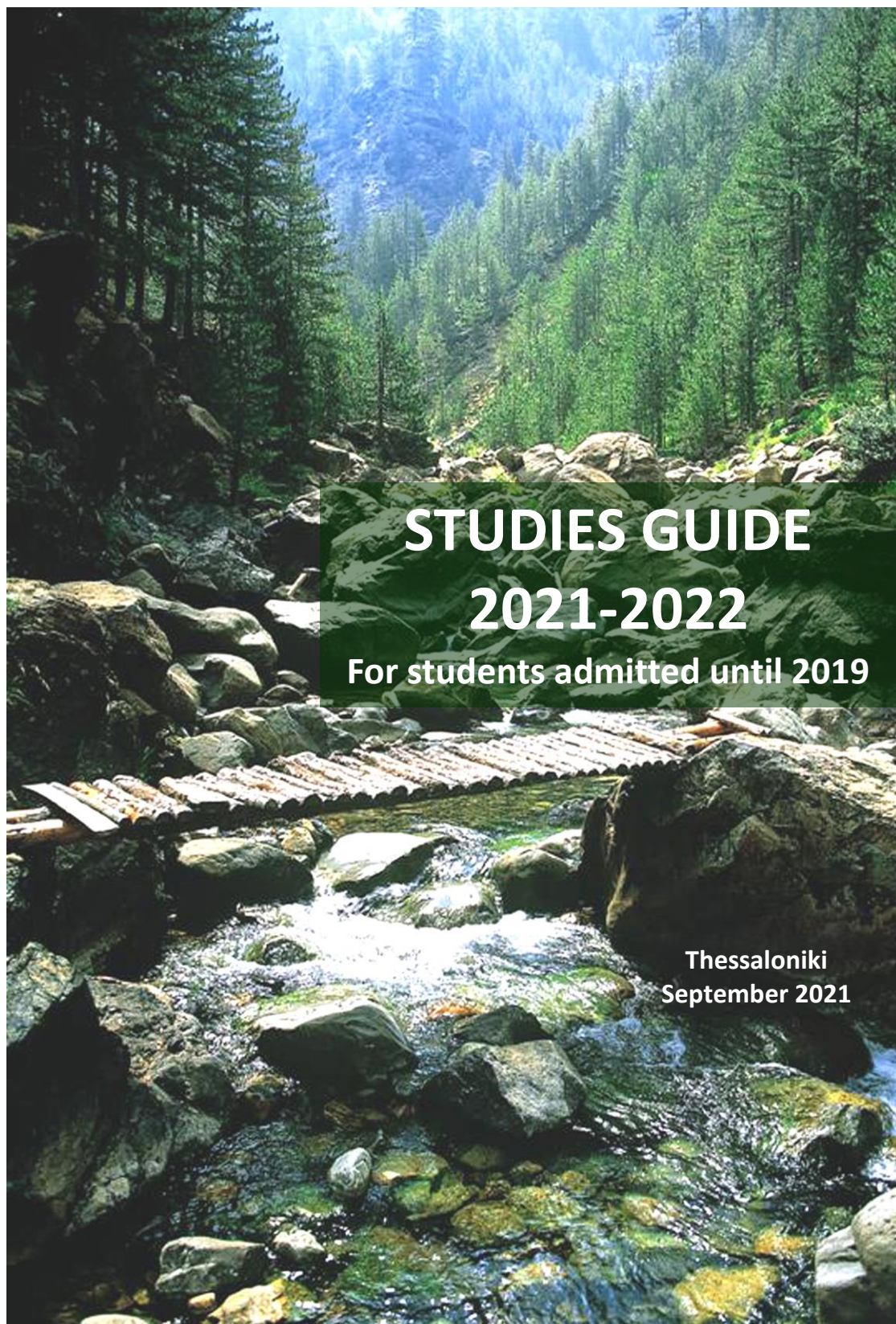




ARISTOTLE UNIVERSITY OF THESSALONIKI  
FACULTY OF AGRICULTURE, FORESTRY AND NATURAL  
SCHOOL OF FORESTRY & NATURAL ENVIRONMENT



# STUDIES GUIDE 2021-2022

For students admitted until 2019

Thessaloniki  
September 2021



ARISTOTLE UNIVERSITY OF THESSALONIKI  
FACULTY OF AGRICULTURE, FORESTRY AND NATURAL  
SCHOOL OF FORESTRY & NATURAL ENVIRONMENT



# STUDIES GUIDE 2021-2022

**For students admitted until 2019**

Thessaloniki  
September 2021

## **Editors**

Alizoti Paraskevi, Associate Professor

Barbas Evangelos, Associate Professor

Panagiotidis Sampson, Associate Professor

Stergiadou Anastasia, Associate Professor

Tampakis Stylianos, Associate Professor

## TABLE OF CONTENTS

<b>PRESIDENTS' OF SCHOOL INTRODUCTION</b>	<b>Σελ.</b> 6
<b>INTRODUCTION</b>	
History of the Faculty – School .....	8
Aim of the School .....	11
Learning Outcomes .....	12
<b>CHAPTER 1</b>	
<b>School Personnel</b> .....	14
Chairman .....	14
Deputy Chairman .....	14
Secretarial staff .....	14
Former Professors .....	15
Former Associate Professors .....	15
Former Assistant Professors .....	15
Former Lectures.....	15
Teaching and Research Personnel .....	16
Special Laboratory Teaching Personnel (S.L.T.P.) .....	16
Special Technical and Laboratory Personnel (S.T.L.P.) .....	16
Administration of University Forests .....	17
<b>CHAPTER 2</b>	
<b>University Administration</b> .....	18
Structure and operation of the School .....	19
Department of Forest Production - Forest Protection - Natural Environment .....	20
Department of Range Science - Wildlife Management and Fresh water Fisheries .....	24
Department of Planning and Development of Natural Resources .....	27
Department of Forest and Water Engineering .....	31
Department of Harvesting and Technology of Forest Products .....	34
<b>CHAPTER 3</b>	
Curriculum in semesters .....	37
Laboratory training .....	47
<b>CHAPTER 4</b>	
<b>Course Content (Syllabus)</b> .....	48
Compulsory courses.....	48
Elective courses .....	60
<b>CHAPTER 5</b>	
<b>Study Organization – Student's Practice</b> .....	79
European credit transfer and accumulation system – ECTS .....	79
Compulsory courses .....	79
Elective courses .....	79
Course attendance .....	80
Practical training .....	82

Undergraduate thesis .....	83
Graduation average grade .....	83
Academic calendar .....	85

## **CHAPTER 6**

<b>Building infrastructure - University forests .....</b>	<b>86</b>
Building infrastructure .....	86
University Forests .....	86
GFSA-GFEA .....	87
SERVICES AND ACTIVITIES IN THE AUTH .....	88
Social Policy Committee A.U.Th. ....	88
Employment and Career Structure (ECS) .....	89
Observation of Students in Sensitive Social Groups .....	89

## **APPENDIX**

Past Chairmen and Deputy - Chairmen of the School/Faculty of Forestry and Natural Environment .....	90
Past Presidents and Vice - Presidents of the Fund of University Forest Administration .....	91
Honorary Doctorates of the School/Faculty of Forestry and Natural Environment ....	92
Telephones and e-mails of the School/Faculty of Forestry and Natural Environment, Teaching and Research Personnel, etc. ....	93
Secretariat Personnel .....	95
Personnel of University Forests Administration Fund .....	95
Useful telephones .....	95



## Presidents' of School Introduction

The School of Forestry and Natural Environment is one of the oldest Schools of the Aristotle University of Thessaloniki. It was founded in 1917 in Athens, as a Higher School of Forestry and in 1927 it was transferred to Thessaloniki and became one of the first educational units of the newly established University. For more than 70 years it remained the only School of Forestry in Greece. The Foresters – Environmentalists, of our School, have staffed the public and private sector and contributed, with sustainable management, in the protection of the terrestrial natural ecosystems of our country.

The School of Forestry and Natural Environment with the qualified scientific staff, constantly improves its infrastructure and continues its work with real sensitivity for the Natural Environment, the Quality of Life and the Sustainability of the productive sources of our country.

Climate change, air pollution and the increasing urbanization that are degrading the natural environment, the survival of our planet requires intense and scientifically proven global care and treatment, which makes the profession of Forester-Environmentalist more relevant.

The Study Guide of the School highlights not only the curriculum but also the history of the School, its contribution to the Greek society and generally all of its activities. This Study Guide describes in detail the Curriculum that will lead to obtaining an integral postgraduate degree **Integrated Master**.

The education of the students is the combination of basic and applied research, adapted to the current needs and trends of science. It is carried out in the premises of the School in the Aristotle University Campus and in Finikas as well as in the University Forests of Pertouli and Taxiarchis. It is based on the existing staff of the School, the existing equipment and the amount of the annual state funding provided. I wish to our students to have a pleasant student life, to love through their studies the Forest Science and with the help of the knowledge they will acquire, to have a guaranteed professional future.

**President of School**

**Thekla Tsitsoni**  
**Professor**

## ABBREVIATIONS

Assist. P.	Assistant Professor
Accoc. P.	Associate Professor
A.U.Th.	Aristotle University of Thessaloniki
E.C.T.S.	European credit transfer and accumulation system
L	Lectures
P.	Professor
S.L.T.P.	Special Laboratory Teaching Personnel
S.T.L.P.	Special Technical Laboratory Personnel
T	Training
W	Workshops



*The Administration building (building A) of the Faculty of Forestry in Finikas Campus.*

## INTRODUCTION

### History of the Faculty - School

The first Higher Forestry School, was founded in 1917 in Athens, according to Law 893/14-9-1917) and operated there for 10 years. It was transferred to Thessaloniki as one of the first Schools of the newly founded Aristotle University of Thessaloniki, (Presidential Decree 8-12-1927). The University of Thessaloniki was founded in 1926 and included only the Faculty of Philosophy. The Faculty of Natural Sciences was founded next year, but only the School of Forestry operated during its first year. In 1928 three more Schools were added, i.e. the Schools of Physics, Mathematics and Agriculture. Ten years later the Faculty of Agriculture and Forestry was founded harbouring two separate Schools of Agriculture and Forestry (law 35/1937).

In April 1981 the above-mentioned Schools became two separate Faculties; Forestry was named 'Faculty of Forestry and Natural Environment' and operated, independently, for the first time in the history of Forestry Education, as an independent Faculty in the Greek University system (Presidential Decree 86/6-4-1981). In 1982 the School assumed the name of School of Forestry and in 1983 the name was amended to School of Forestry and Natural Environment. The same year (1983) the Faculty of Geotechnical Sciences was founded with three constituent Schools: Agriculture, Forestry and Natural Environment, and Veterinary Medicine.



The Faculty of Geotechnical Science of AUTH abolished according to the Presidential Decree 247/04 (Governmental Journal no. 234/ Volume A/30-11-04) and the School of Forestry and Natural Resources that belongs to the Faculty came back to the previous situation according to the article 30 & 1 to Law 1268/82 and article 6 & 11 to Law 1351/83. As date of rename the Faculty of Forestry and Natural Resources to School of Forestry and Natural Resources defined 11-07-2005 (Meeting Congress 2770/29-6-05 and Deanery Council of Auth 1205/27-7-05).



*The Building of the School of Forestry in Athens (corner of M. Voda Str. and Smirnis Str.), where the School was housed from 1918 to 1927.*

In 5-6-2013 according to the Presidential Decree 97/5-6-13 (Governmental Journal no. 134/ Volume A/5-6-13 ) was founded the Faculty of Agriculture, Forestry and Natural Recourses and started operated in the 1<sup>st</sup> of September 2013 and included till then two Faculties:(a) Agriculture and (b) Forestry and Natural Recourses and renamed to Schools of (a) Agriculture and (b) Forestry and Natural Recourses accordingly.

The School, in 1917, encompassed three “Chairs” (combined with their laboratories). In 1937 it encompassed five and in 1965 six. In 1977, 50 years since the foundation of the University of Thessaloniki, the number of “Chairs” has risen to 15 and the personnel included 12 Professors, 2 Associate Professors, 5 Assistant Professors, 28

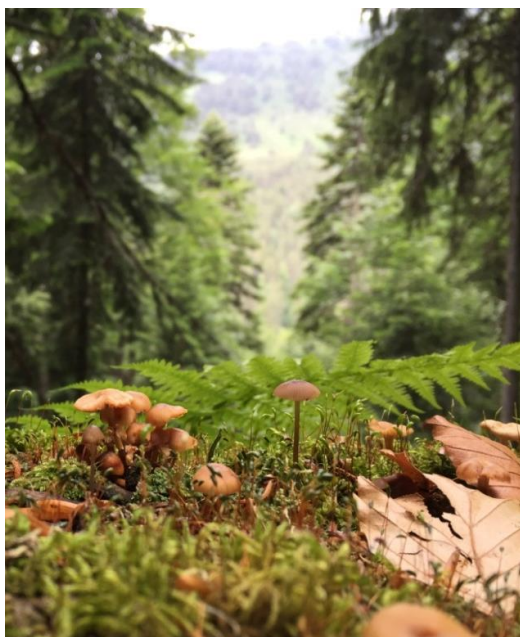
Research Assistants and 14 Laboratory Assistants. Since 1983 the School of Forestry and Natural Environment (SFNE) has been divided in five Departments:

1. Forest Production - Forest Protection - Natural Environment
2. Range Science - Wildlife Management and Freshwater Fisheries
3. Planning and Development of Natural Resources
4. Forest and Water Engineering
5. Harvesting and Technology of Forest Products

These Departments are subdivided in 16 Laboratories, 1 Institute and 1 Design/Drawing Room. On the other hand the Laboratory of Forest Informatics and the Informatics room are part of the School.

In September 2021 the personnel will include 16 Professors, 13 Associate Professors, 3 Assistant Professors, 17 Special Laboratory Teaching Personnel (S.L.T.P.) and 2 Special Technical Laboratory Personnel (S.T.L.P.). In addition, one faculty position (1 Associate Professor) are foreseen to fulfill during the next academic year. The research personnel of the SFNE had developed cooperation with Universities and research institutes inside or outside the country and participate in international scientific organizations (for example IUFRO, EUFORGEN). Graduates of the educational program of the SFNE receive the Degree of level 7 (Master Integrated) according to the National Qualifications Framework.

Twenty years (2000-2020) from the SFNE graduated 1330 foresters. To the Department every academic year are admitted about 110-140 students.



The University possesses two University Forests that are used for practical training and research. One resides in the area of Pertouli-Pindos with area 3,300ha and the other in the area of Taxiarchis-Chalkidiki with 5,800ha. The University Forests Fund is the sole authority for the administration and management of the University Forests.

The Faculty of Forestry and Natural Environment has greatly contributed to the development of the Greek forestry science, to the improvement of

management and development of Greek forests and natural resources and to the protection and conservation of the natural environment of our country, through its teaching and research activities, publications, as well as the through the various activities of its staff and graduates.

The School of Forestry and Natural Environment offers two MSc educational programs. The first on “Sustainable Management of Forest and Natural Ecosystems: Protection, Production and Exploitation” ([e-Study guide](#)) and the second on “Natural Resources: Monitoring, Technology and Bioeconomy” ([e-Study guide](#)). The School also participates in five MSc programs (see web-page) in association with other departments (level 7 - according to the national qualifications of framework). Additionally, the school offers PhD studies providing the title Doctor of Philosophy in Forestry (PhD, level 8 - according to the national qualifications of framework).

## Aim of the School

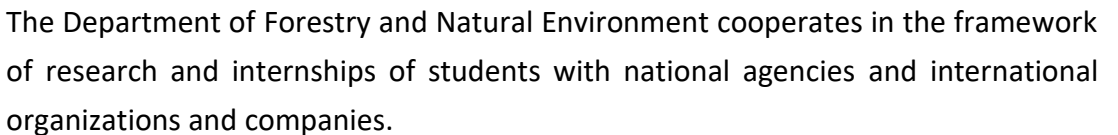
The School of Forestry and Natural Environment of AUTH operates with a program of undergraduate studies since 1927 and a postgraduate program from 1998 and constitutes an international recognized center of modern university education and research. Aim of the School is the combination of properly instruction of the scientists, capable to study, understand and manage terrestrial natural ecosystems with high level of research activity in issues of science in Forestry and Natural Environment. In order to achieve the above aim the School offers:

- Properly equipped laboratories for student’s education.
- Research laboratories where groups of scientists give education possibilities in contemporary challenges in forestry.
- Library and computer workstation with access to journals, books and data bases.
- Two university forests for the practical training of students and research.
- Forest botanical, pasture garden, wildland museum for student’s education and research and citizen’s information and awareness.
- Lectures from the academic personnel and visiting professors about the modern issues of Forestry and Natural Environment.

## Learning Outcomes

The Curriculum provided by the Department of Forestry and Natural Environment aims to train scientists capable of studying, understanding and managing terrestrial natural ecosystems and imparting knowledge of the Science of Forestry and the Natural Environment. Upon obtaining their degree, students are able to face the complex problems of practice and research and at the same time to contribute positively to the development of Greek forestry, in order to protect and manage forests and the natural environment.

At an applied level, the Degree (integrated master) aims at learning outcomes and skills that give the ability to provide services by its graduates in all areas of the natural environment including forests, forest, meadow and wetland areas, in the context of Education and Research. The graduate Foresters-Environmentalists of the School of AUTH may engage in public and private institutions, working in the fields of sustainable ecosystem management, biodiversity conservation, environment, forest technology, aquaculture, wildlife and hunting management, forestry and hydrological projects, monitoring and restoration of natural ecosystems, genetic improvement of forest species, massive reproduction of forest reproductive material, biotechnology, mapping and environmental remote sensing through geospatial information natural ecosystems, the protection of natural ecosystems from biotic (diseases, insects), abiotic (fires, floods) and anthropogenic (deforestation, encroachment, degradation) factors, as well as education and research in the above areas (see also [Diploma Supplement](#)). Through the elaboration of Diploma Thesis and the offered postgraduate study programs, the students are offered the opportunity to participate in a variety of basic and applied research programs, which are implemented under the scientific responsibility of faculty members and, in many cases, in collaboration with Universities, Research Institutes or scientific institutions of Europe, America and other countries. In addition, students have the opportunity to participate in the European Exchange Program ERASMUS +, through which they can move to study at partner universities, or for an internship at European universities, research institutes, institutions, organizations abroad but also private companies in order to practice and acquire skills in scientific fields offered by the School.





## CHAPTER 1

### School Personnel

**Chairman** **Tsitsoni Thekla**, Professor (for the period 2020-2022)  
Building of the former Faculty of Agriculture and Forestry, Central University  
Campus, tel. 2310 995199  
A.U.Th., Finikas Campus, Building E', tel. 2310 992320

**Deputy** **Nanos Nikolaos**, Associate Professor (for the period 2020-2022)  
**Chairman** A.U.Th., Finikas Campus, Building C', tel. 2310 992702

**Secretarial** **Georgitsopoulou Paraskevi**, Head of the Secretariat  
**staff:** A.U.Th., Administration Bureau, Building of the former Faculty of Agriculture  
and Forestry, Central University Campus, tel. 2310 995197, Fax 2310 995202,  
e-mail: [info@for.auth.gr](mailto:info@for.auth.gr)

**Mitsopoulos Emmanouil**  
A.U.Th., Building of the former Faculty of Agriculture and Forestry,  
Administration Bureau, Central University Campus, tel. 2310 995196

**Alifakioti Phyllis**  
A.U.Th., Building of the former Faculty of Agriculture and Forestry,  
Administration Bureau, Central University Campus, tel. 2310 995192

**Samuelidou Alexandra**  
A.U.Th., Building of the former Faculty of Agriculture and Forestry,  
Administration Bureau, Central University Campus, tel. 2310 995195

**Makri Christina**  
Library, A.U.Th., Finikas Campus, Building D', tel. 2310 992442

**Georgiadou Anastasia**  
Responsible for the Informatics room, A.U.Th., Finikas Campus,  
Building D', tel. 2310 992718

## Former Professors (49)

- |                            |                           |
|----------------------------|---------------------------|
| † Athanasiadis Nikolaos*   | Markalas Stefanos*        |
| Alifragis Dimitrios        | Matis Konstantinos *      |
| † Arvanitis Loukas*        | † Moulalis Dimitrios*     |
| † Asteris Konstantinos*    | † Mouloupoulos Christos   |
| Barboutis Ioannis          | Nastis Anastasios *       |
| † Basiotis Konstantinos*   | † Nikolitsas Georgios     |
| Chatzistathis Athanasios*  | Noitsakis Vasileios*      |
| † Christodoulou Athanasios | Panetsos Konstantinos*    |
| † Dafis Spiridon*          | Papageorgiou Nikolaos*    |
| Doukas Kosmas*             | † Papaioannou Ioannis     |
| Efthymiou Pavlos *         | Papamichos Nikolaos*      |
| † Ekromopculos Anastasios  | Papanastasis Vasileios*   |
| Eskioglou Panagiotis*      | † Papastavrou Anastasios* |
| Filippou Ioannis*          | Pasialis Konstantinos*    |
| † Gerasimidis Achilles*    | Seilopoulos Dimosthenis   |
| † Georgopoulos Antonios    | † Sklavounos Konstantinos |
| Goulas Apostolos           | Smyris Pavlos             |
| Grigoriou Athanasios*      | Stamatellos Georgios      |
| † Kailidis Dimitrios*      | † Stamou Nikolaos         |
| Karagiannis Evangelos      | † Stergiadis Georgios*    |
| Kameris Athanasios*        | Stefanidis Panagiotis     |
| Karteris Michail*          | Tsiouvaras Konstantinos*  |
| † Kontos Petros            | † Tsoumis Georgios *      |
| Koukoura Zoi*              | Vassiliou Vasileios*      |
| † Kotoulas Dimitrios *     | Vlachos Christos          |
| † Liakos Leonidas*         | Voulgaridis Ilias*        |
| † Makris Konstantinos*     |                           |

\* Professors Emeritus

## Former Associate Professors (9)

- |                          |                      |
|--------------------------|----------------------|
| † Anagnos Nikolaos       | Kararizos Plutarchos |
| Blioumis Vaios           | † Lefakis Panagiotis |
| Ispikoudis Ioannis       | † Papoulias Ioannis  |
| Karagiannis Konstantinos | † Svarnas Dimitrios  |
| Karamanolis Dimitrios    |                      |

## Former Assistant Professors (4)

- |                     |                         |
|---------------------|-------------------------|
| Goulas Konstantinos | † Mitsopoulos Dimitrios |
| Goupos Christos     | Pavlidis Theofanis      |

## Former Lecturers (1)

- Gatzogiannis Stylianos

## TEACHING AND RESEARCH PERSONNEL (32)

### Professors (16)

Abraham Eleni  
Andreopoulou Zacharoula  
Aravanopoulos Filippas  
Bakaloudis Dimitrios  
Giannoulas Vasileios  
Dimitrakopoulos Alexandros  
Eleftheriadou Eleni  
Ganatsas Petros

Gitas Ioannis  
Kokkinakis Antonis  
Scaltsoyiannes Apostolos  
Stathis Dimitrios  
Theodoropoulos Konstantinos  
Tsitsoni Thekla  
Yiakoulaki Maria  
Zagas Theocharis

### Associate Professors (13)

Alizoti Paraskevi  
Barbas Evangelos  
Karatassiou Maria  
Myronidis Dimitrios  
Nanos Nikolaos  
Panagiotidis Sampson  
Papaioannou Athanasios

Parissi Zoi  
Sapountzis Marios  
Stergiadou Anastasia  
Tampakis Stylianos  
Tsaktsira Maria  
Tsoulpha Parthena

### Assistant Professors (3)

Diamantopoulou Maria  
Lykidis Charalampos

Tsioras Petros

## SPECIAL LABORATORY TEACHING PERSONNEL (S.L.T.P.) (17)

Aslanidou Maria  
Chouvardas Dimitrios  
Christopoulos Ilias  
Ganatsios Harisios  
Giannakopoulos Vasileios  
Makra Maria  
Mantzas Konstantinos  
Mavrokordopoulou Olga  
Papadimitriou Achilleas

Papadimitriou Maria  
Paralikidis Nikolaos  
Pipinis Ilias  
Psilovikos Thomas  
Sidiropoulou Anna  
Sklavou Paraskevi  
Skoufa Eleftheria  
Tsakalimi Maranthi

## SPECIAL TECHNICAL AND LABORATORY PERSONNEL (S.T.L.P.) (2)

Tsougrakis Ioannis

Chrysopoulou Sofia

## ADMINISTRATION OF UNIVERSITY FORESTS

(<http://uniforest.auth.gr/>)

**Chairman** **Gitas Ioannis** (for the period 2021-2023)  
A.U.Th., Finikas Campus, Building B', tel. 2310 992699, Fax 2310 992677

**Vice** **Ganatsas Petros** (for the period 2021-23)  
**Chairman** A.U.Th., Finikas Campus, Building E', tel. 2310 998915

**Members** (for the period 2019-2021)

**Full Members**

Bakaloudis Dimitrios  
Stathis Dimitrios  
Tsaktsira Maria  
Gitas Ioannis  
Ganatsas Petros  
Gklavinis Panagiotis  
Tsougrakis Ioannis  
Alexiou Vasilios

**Deputy Members**

Abraham Eleni  
Giannoulas Vasileios  
Dimitrakopoulos Alexandros  
Andreopoulou Zacharoula  
Aravanopoulos Filippas  
Mantzoufas Panagiotis  
Chrysopoulou Sofia  
Kontogiannis Christos

### Central Administration

**Panagiotou Georgios**, tel.. 2310992341  
**Adamopoulou-Douka Melpomeni**, tel. 2310 992347  
**Vezirgenidou-Samolada Theodora**, tel. 2310 992346  
**Lazaridou-Tsilogianni Vaia**, tel. 2310 992344  
A.U.Th., Faculty of Forestry and Natural Environment, Finikas Campus, Building A'

### Forest Administration at Pertouli District

**Head Forester** **Alexiou Vasilios**, Forestry  
Management & Administration Building, Pertouli, Trikala,  
tel. 24341 91207, 24313 51532, fax 24340 91109

**Employees** **Kalpia Despoina**, Administration Employee  
**Kontogiannis Dimitrios**, Forest-Guard  
**Koutsianitis Sotirios**, Maintenance Servant  
**Ekonomou Michael**, Administration Employee

### Forest Administration at Taxiarchis District

**Head Forester** **Kontogiannis Christos**, Forestry  
Management & Administration Building, Taxiarchis, Chalkidiki,  
tel. 23710 94295, fax 23710 94096

**Employees** **Tavanidou Eleni**, Administration Employee  
**Vagionas Georgios**, Forest Technologist  
**Lalos Evangelos**, Forest-Guard  
**Rountos Georgios**, Forest Technologist

## CHAPTER 2

### University Administration

University administration is exercised by bodies elected by democratic principles and collaborative processes and covers all forms and levels of teaching, research and administrative activity. Each School covers a range of related scientific fields and provides inter-scientific collaboration and communication between them and the necessary research coordination. Additionally, the University administration coordinates and supervises the operation of studies programs and assigns their implementation to Schools. The school is the basic education unit of the university being responsible for policy-making in relation to education and research in their respective field of science, while the Departments have the responsibility of implementing the daily academic activities of the Faculty.

According to the law 4485/2017, administration bodies of the University are the Senate, the Rector Board and the Rector. Administration bodies of the School are the General Assembly (GS), the General Assembly of Specific Composition (GASC), the Board of Directors (BD), the Rector, the Deputy Rectors, the Deans of Schools and the heads of Schools and representatives of the personnel and the students (<https://www.auth.gr/>).

Bodies of the Faculty of Agriculture, Forestry and Natural is the General Assembly of the Faculty, the Deanery and the Dean (<https://www.auth.gr/agrofor>).

Dean of the faculty elected till 31-8-2024 Professor **Apostolos Apostolidis**.



*The facilities of Taxiarchis-Chalkidiki*



## Structure and operation of the School

The administration bodies of the department are: (i) the General Assembly of the department, (ii) the Board of Directors, (iii) the Chairman and (iv) the Deputy Chairman of the School (<https://www.for.auth.gr/>).

**The Chairman** of the School for the duration of 1/9-2020 until 31/8-2022 is **Tsitsoni Thekla**, Professor.

**Deputy Chairman** of the School for the same duration is **Nanos Nikolaos**, Associate Professor.

With the goal of better coordination of the teaching and research function the School is split up into five departments. Laboratories, Institutes and the Design/Drawing Rooms are assigned to each department along with the teaching personnel.

The administration bodies of the department is the General assembly and the Chairman.

With the aim of best coordination of educational and research operation the School of Forestry and Natural Environment includes five Departments, which are:

1. Forest Production - Forest Protection - Natural Environment
2. Range Science - Wildlife Management and Freshwater Fisheries
3. Planning and Development of Natural Resources
4. Forest and Water Engineering
5. Harvesting and Technology of Forest Products



*The facilities of  
Pertouli-Trikala*

## DEPARTMENT OF FOREST PRODUCTION-FOREST PROTECTION AND NATURAL ENVIRONMENT

Specialization area: (Governmental Journal no. 231/Volume B/29-4-1983 and Ministerial Decision B1/420)

The Department covers the following subjects: General and Forest Ecology, Silviculture, Soil Science, Forest Genetics and Forest Tree Improvement, Forest Protection, Forest Botany and Geobotany, Protection of the Nature and Landscape Architecture.

**Head of department**     **Alizoti Paraskevi**, Associate Professor  
A.U.Th., Finikas Campus, Building E', tel. 2310 992769

### Professors

Aravanopoulos Filippou  
Gkanatsas Petros  
Dimitrakopoulos Alexandros  
Eleftheriadou Eleni  
Skaltsogiannis Apostolos  
Theodoropoulos Konstantinos  
Tsitsoni Thekla  
Zagkas Theocharis

### Associate Professors

Alizoti Paraskevi  
Barbas Evangelos  
Panagiotidis Sampson  
Papaioannou Athanasios  
Tsaktsira Maria  
Tsoulfa Parthena

### Special Laboratory Teaching Personnel

Aslanidou Maria  
Christopoulos Ilias  
Mavrokordopoulou Olga  
Pipinis Ilias  
Tsakalimi Maranthi

## LABORATORY OF FOREST BOTANY - GEOBOTANY

**Head of the Laboratory** Theodoropoulos Konstantinos, Professor

Building of the former Faculty of Agriculture and Forestry, Central University Campus, tel. 2310 998918

A.U.Th., Finikas Campus, Building E', tel. 2310-992765



Plant Society Alnetum incanae  
Aich,



*Lilium  
rhodopaeum*  
Delip.

## LABORATORY OF FOREST GENETICS & FOREST TREE IMPROVEMENT

**Head of the Laboratory** Skaltsogiannis Apostolos, Professor

Building of the former Faculty of Agriculture and Forestry, Central University Campus, tel. 2310 998925

A.U.Th., Finikas Campus, Building E', tel. 2310 992776



Experimental education and research center  
of Pertouli



Genetic analysis laboratory - tissue culture



## LABORATORY OF SILVICULTURE

**Head of the Laboratory** Zagkas Theocharis, Professor

Building of the former Faculty of Agriculture and Forestry, Central University Campus, tel. 2310 998013

A.U.Th., Finikas Campus, Building E', tel. 2310 992762

Oak-stand under conversion with cultivation in the area of Chalkidiki



Center for spruce reproduction in the University Forest of Pertouli



## LABORATORY OF FOREST PROTECTION

**Head of the Laboratory** Dimitrakopoulos Alexandros, Professor

Building of the former Faculty of Agriculture and Forestry, Central University Campus, tel. 2310 998914

A.U.Th., Finikas Campus, Building E', tel. 2310 992707

Ice seen in a spruce trunk found at the Forest of Pertouli



A pine - tree  
lavra eating  
pine - needles



## LABORATORY OF FOREST SOIL SCIENCE

**Head of the Laboratory** Papaioannou Athanasios, Associate Professor

Building of the former Faculty of Agriculture and Forestry, Central  
University Campus

A.U.Th., Finikas Campus, Building E', tel. 2310 992767



Shallow physiological soil depth due to  
water table, Strofilia  
(West Peloponnisos)



Shallow soil depth on gneiss parent material  
(Reforestation area from Thlva)



## DEPARTMENT OF RANGE SCIENCE - WILDLIFE AND FRESH WATER FISHERIES

*Specialization area: (Governmental Journal no. 231/Volume B/29-4-1983 and Ministerial Decision B1/420)*

*The Department covers the following subjects: Rangeland Ecology, Wildlife and Freshwater Fisheries*

**Head of department**     **Kokkinakis Antonios**, Professor  
A.U.Th., Finikas Campus, Building C', tel. 2310 992704

### **Professors**

Abraham Eleni  
Bakaloudis Dimitrios  
Kokkinakis Antonios  
Yiakoulaki Maria

### **Associate Professors**

Karatasiou Maria  
Parisi Zoi

### **Special Laboratory Teaching Personnel**

Chouvardas Dimitrios  
Mantzanas Konstantinos  
Papadimitriou Maria  
Paralykidis Nikolaos  
Sidiropoulou Anna  
Sklavou Paraskevi

### **Special Technical and Laboratory Personnel**

Tsougrakis Ioannis

## LABORATORY OF RANGE MANAGEMENT

**Head of the Laboratory** **Abraham Eleni**, Professor  
Building of the former Faculty of Agriculture and Forestry, Central  
University Campus, tel. 2310 998936  
A.U.Th., Finikas Campus, Building C', tel. 2310 992301



Grazing unit of university forest of Pertouli



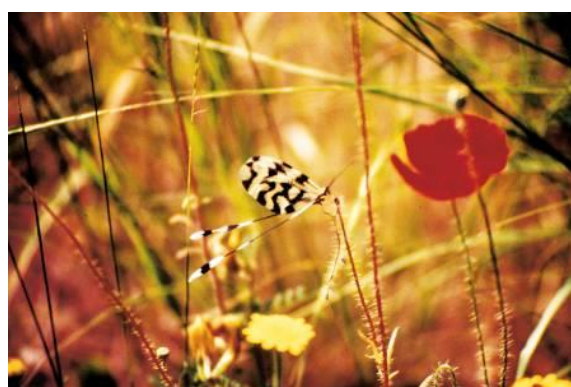
Sheep grazing in a twing meadow in  
Crete

## LABORATORY OF RANGELAND ECOLOGY

**Head of the Laboratory** **Karatasiou Maria**, Associate Professor  
Building of the former Faculty of Agriculture and Forestry, Central  
University Campus, tel. 2310 998936  
A.U.Th., Finikas Campus, Building C', tel. 2310 992302



Turf meadow with stone pipes in Strofyli  
area



Biodiversity in turf meadows

## LABORATORY OF WILDLIFE AND FRESHWATER FISHERIES

**Head of the Laboratory** (will be elected)  
Building of the former Faculty of Agriculture and Forestry, Central  
University Campus, tel.  
A.U.Th., Finikas Campus, Building B', tel.



Brown trout



Short-toed snake eagle feeds its hatchling

## WILDLIFE MUSEUM-AQUARIUM

A.U.Th., Finikas Campus, Building B', tel. 2310 992349, 2310 992686



## DEPARTMENT OF PLANNING AND DEVELOPMENT OF NATURAL RESOURCES

Specialization area: (Governmental Journal no. 231/Volume B/29-4-1983 and Ministerial Decision B1/420)

The Department covers the following subjects: Forest Biometry, Forest Management, Forest Policy, Forest Economics, Forest Remote Sensing

**Head of department**    **Tampakis Stylianos**, Associate Professors  
A.U.Th., Finikas Campus, Building B', tel. 2310 992756

### **Professors**

Andreopoulou Zacharoula  
Gitas Ioannis

### **Associate Professors**

Nanos Nikolaos  
Tampakis Stylianos

### **Assistant Professor**

Diamantopoulou Maria

### **Special Laboratory Teaching Personnel**

Giannakopoulos Vasileios  
Makra Maria  
Skoufa Eleftheria

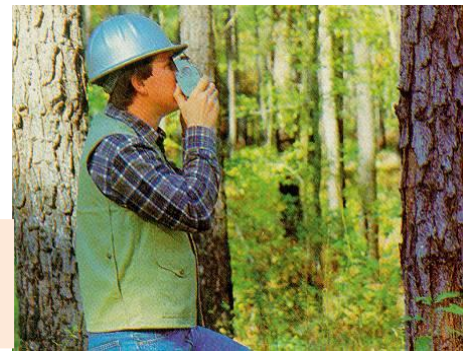


## LABORATORY OF FOREST BIOMETRY

**Head of the Laboratory** **Gitas Ioannis**, Professor  
A.U.Th., Finikas Campus, Building B', tel. 2310 992699, Fax 2310 992677



Use of forest  
biometric  
instruments

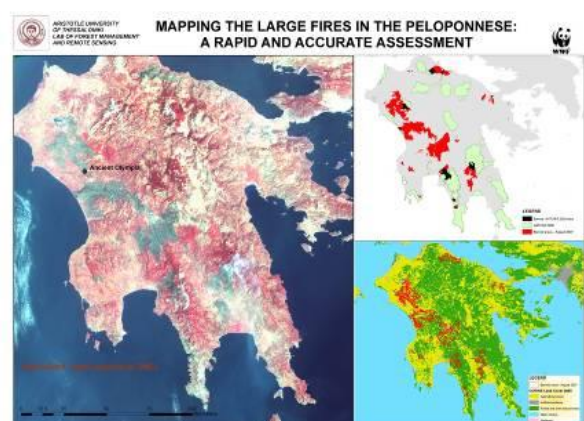


## LABORATORY OF FOREST MANAGEMENT AND REMOTE-SENSING

**Head of the Laboratory** **Gitas Ioannis**, Professor  
A.U.Th., Finikas Campus, Building B', tel. 2310 992699, Fax 2310 992677



Field data collection with the use of  
spectroradiometer



Burned area mapping with the use of  
satellite data

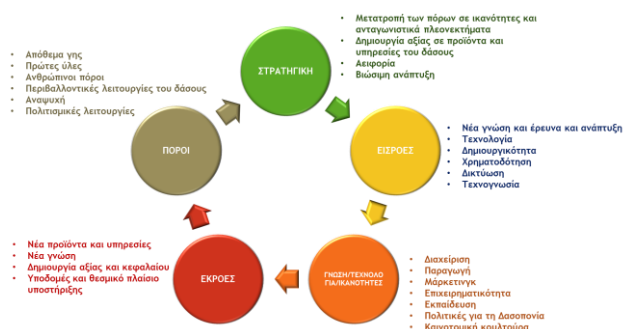


## LABORATORY OF FOREST ECONOMICS

**Head of the Laboratory** (will be elected)  
A.U.Th., Finikas Campus, Building B', tel.



Operation control center in a wood industry



Innovation in Forestry

## LABORATORY OF FOREST POLICY

**Head of the Laboratory** **Andreopoulou Zacharoula**, Professor  
A.U.Th., Finikas Campus, Building B', tel. 2310 992714, 998969, fax 2310 992717



Snow-center of Parnassos



The university forest of Pertouli in the Province of Trikala

## READING-ROOM OF FOREST RECREATION, ENVIRONMENTAL EDUCATION & SOCIOLOGY

**Head of the Laboratory** (will be elected)  
A.U.Th., Finikas Campus, Building B'



Recreation area in the urban forest of Kedrinis Lofos



Recreation in the National park of Samaria (Crete)

## DEPARTMENT OF FOREST AND WATER ENGINEERING

Specialization area: (Governmental Journal no. 231/Volume B/29-4-1983 and Ministerial Decision B1/420)

The Department covers the following subjects: Freshwater Management, Hydrologic Management of River Basins, Forest Construction, Forest Road Construction and Transport, Topography.

**Head of department** **Giannoulas Vasileios**, Professor  
Building of the former Faculty of Agriculture and Forestry, Central University  
Campus, tel. 2310 998977  
A.U.Th., Finikas Campus, Building C', tel. 2310 992744

### Professors

Giannoulas Vasileios  
Stathis Dimitrios

### Associate Professors

Myronidis Dimitrios  
Sapountzis Marios  
Stergiadou Anastasia

### Special Laboratory Teaching Personnel

Ganatsios Harisios  
Papadimitriou Achilleas  
Psilovikos Thomas

## LABORATORY OF MOUNTAINOUS WATER MANAGEMENT AND CONTROL

**Head of the Laboratory** **Stathis Dimitrios**, Professor  
Building of the former Faculty of Agriculture and Forestry, Central  
University Campus, tel. 2310 998987  
A.U.Th., Finikas Campus, Building C', tel. 2310 992715



Dam for consolidation beds in the torrent of "Falls" in Pindos



Dam for holding back the solid materials in the torrent of Orma (District of Aridea)

## LABORATORY OF MECHANICAL SCIENCE AND TOPOGRAPHY

**Head of the Laboratory** (will be elected)  
Building of the former Faculty of Agriculture and Forestry, Central  
University Campus, tel.  
A.U.Th., Finikas Campus, Building C', tel.



Forest road construction



Wood loading

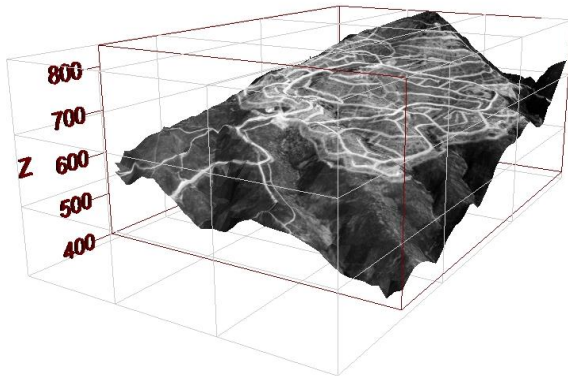


## DRAWING LAB

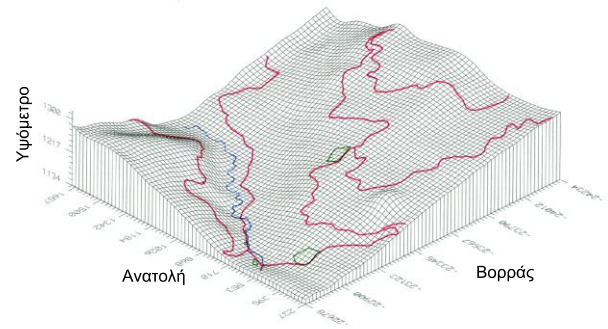
### Head of the Laboratory (will be elected)

Building of the former Faculty of Agriculture and Forestry, Central University Campus, tel.

A.U.Th., Finikas Campus, Building C', tel.



3D view of forest area - Kissos, Chortiatis,  
Thessaloniki



3D digital view of forest road network –  
Pertouli, Trikala



## DEPARTMENT OF HARVESTING AND TECHNOLOGY OF FOREST PRODUCTS

Specialization area: (Governmental Journal no. 231/Volume B/29-4-1983 and Ministerial Decision B1/420)

*The Department covers the following subjects: Harvesting of Forest Products, Structure and Properties of Wood, Chemical and Mechanical Processing of Wood and Wood Products, Operation of Wood Industries.*

**Head of department** **Aravanopoulos Filippos**, Professor  
A.U.Th., Finikas Campus, Building E', tel. 2310 992778

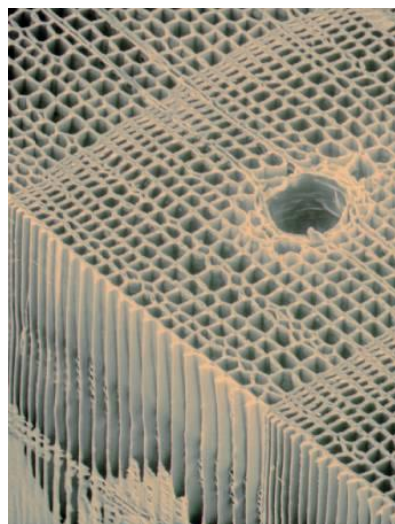
**Assistant Professor**  
Lykidis Charalampos  
Tsioras Petros

## LABORATORY OF FOREST UTILIZATION

**Head of the Laboratory** **Ganatsas Petros**, Professor  
A.U.Th., Finikas Campus, Building E', tel. 2310 998915



Wood harvesting- tree felling



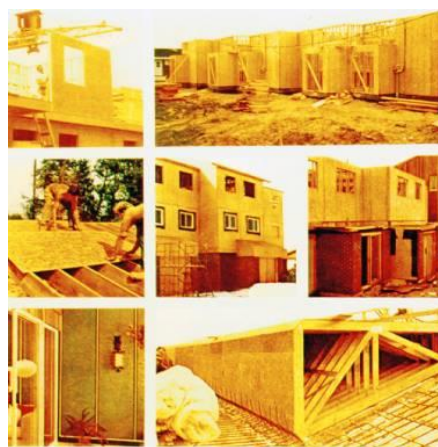
Three dimensional structure of coniferous wood (pine) in scanning electron microscope

## LABORATORY OF FOREST TECHNOLOGY

**Head of the Laboratory** **Aravanopoulos Filippos**, Professor  
A.U.Th., Finikas Campus, Building E', tel. 2310 992778



Log storage, yards at wood industry



Wood products. Some of its uses

## LABORATORY OF FOREST INFORMATICS (Faculty level)

**Head of the Laboratory** Andreopoulou Zacharoula, Professor  
A.U.Th., Building of the former Faculty of Agriculture and Forestry,  
Central University Campus, A.U.Th., Finikas Campus, Building B', tel.  
2310 992714, 998969, fax 2310 992717

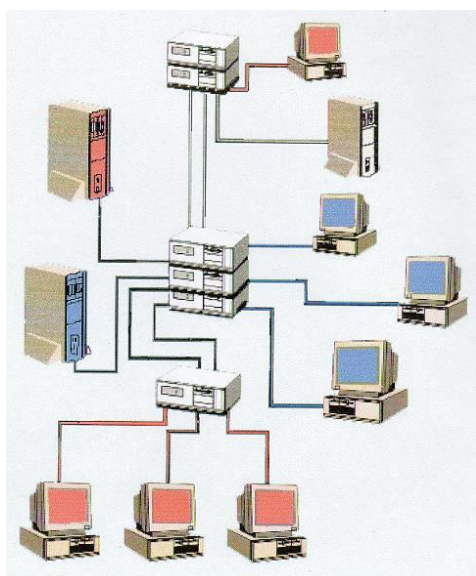


Computer classroom

**Special Technical and Laboratory Personel**  
Chrysopoulou Sofia

## LOCAL AREA NETWORK COMPUTER WORKSTATION (Faculty level)

**Head of the Workstation** Andreopoulou Zacharoula, Professor  
A.U.Th., Finikas Campus, Building B', tel. 2310 992714, 998969, fax 2310  
992717



Computer network

## CHAPTER 3

### Curriculum in semesters

#### 1<sup>st</sup> semester

#### Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(001Y)	Mathematics	3	2	5
(003Y)	Ecology	2		2
(005Y)	General Botany-Morphology	2	2	4
(007Y)	Meteorology and Climatology	3	2	5
(009Y)	Technical Drawing	2	1	3
(011Y)	Foreign Language	2		2

#### Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	Μονάδες ECTS
(001E)	Sociology	General	2	1	3
(003E)	Petrography - General & Engineering Geology	General	2	1	3
(005E)	General Chemistry	General	2	1	3



## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(002Y)	General Soil Science	3	2	5
(004Y)	General Botany-Physiology	2	2	4
(006Y)	Political Economy	2	1	3
(008Y)	Mechanical Sciences-Applied Mechanics	3	2	5
(010Y)	Foreign Language	2		2

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	Μονάδες ECTS
(002E)	Zoology (Not to be lectured)	General	2	1	3
(004E)	Physics	General	3	2	5
(006EA)	Introduction to Forest Informatics	General	2	1	3





## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(019Y)	Forest Botany I (Spermatophytes Systematics)	3	2	5
(021Y)	Topography	3	2	5
(023Y)	Forest Soil Science	3	2	5
(025Y)	Forest Biometry I	3	2	5
(055Y)	Rangeland Ecology	3	2	5
(029Y)	Foreign Language	2		2

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(301E)	Building and Construction Materials	3 <sup>rd</sup>	2	1	3
(303E)	Physical Geography - Geomorphology	3 <sup>rd</sup>	2	1	3
(501E)	Physiology of Forest Trees	5 <sup>th</sup>	2	1	3
(213E)	Wildlife Biology	2 <sup>nd</sup>	2	1	3

# 4<sup>th</sup> semester

## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(018Y)	Forest Botany II (Trees-Shrubs)	3	2	5
(080Y)	General Hydraulics & Hydrology, Potamology	4	2	6
(082Y)	Forest Opening Up and Wood Transport	3	2	5
(024Y)	Forest Biometry II	4	2	6
(026Y)	Forest Plant Sociology	2		2
(028Y)	Foreign Language	2		2

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(502E)	Forest Soil Fertility	5 <sup>th</sup>	2	1	3
(204E)	Forage Plants	2 <sup>nd</sup>	2	1	3
(214E)	Freshwater Ecology	2 <sup>nd</sup>	2	1	3
(416E)	Introduction to Regression (Not to be lectured)	4 <sup>th</sup>	2	1	3
(418E)	Economics of Natural Resources (Not to be lectured)	4 <sup>th</sup>	2	1	3



## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(037Y)	Forest Road Construction	3	2	5
(039Y)	General Silviculture (Forest Ecology)	4	1	5
(041Y)	Forest Protection I (Forest Pathology)	3	2	5
(043Y)	Wood Structure and Properties	3	2	5
(045Y)	Forest Genetics	3	2	5
(079Y)	Forest Informatics I	3	2	5
(047Y)	Foreign Language	2		2

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(305E)	Forest Cadastre	3 <sup>rd</sup>	2	1	3
(503E)	Experimental Design (Not to be lectured)	5 <sup>th</sup>	2	1	3
(201E)	Rangeland Ecophysiology	2 <sup>nd</sup>	2	1	3
(601E)	History of Forest Vegetation	6 <sup>th</sup>	2	1	3
(317E)	Machinery Application in Torrent Management and Forest Engineering Works	3 <sup>rd</sup>	2	1	3
(211EA)	Avian Ecology	2 <sup>nd</sup>	2	1	3
(111E)	Forest Ergonomics	1 <sup>st</sup>	2	1	3
(504E)	Sampling (Not to be lectured)	5 <sup>th</sup>	2	1	3
(206E)	Genetic Improvement of Range Species	2 <sup>nd</sup>	2	1	3
302E)	Soil Mechanics and Foundations	3 <sup>rd</sup>	2	1	3

# 6<sup>th</sup> semester

## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(036Y)	Genetic Improvement of Forest Species	3	2	5
(038Y)	Applied Silviculture	4	1	5
(040Y)	Forest Protection II (Forest Entomology)	3	2	5
(042Y)	Forest Products Harvesting	3	1	4
(044Y)	Forest Aerial Photography	3	2	5
(084Y)	Forest Informatics II	3	2	5
(046Y)	Foreign Language	2		2

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(102E)	Wood Identification	1 <sup>st</sup>	2	1	3
(215E)	Game Propagation - Hunting Reserves Management	2 <sup>nd</sup>	2	1	3
(314E)	Forest Hydrology and Water Resources	3 <sup>rd</sup>	2	1	3
(306E)	Forest Constructions	3 <sup>rd</sup>	2	1	3
(308E) (602E)	Technical Works & Natural Environment	3 <sup>rd</sup> and 6 <sup>th</sup>	2	1	3
(218E)	Rangeland Protection and Landscaping	2 <sup>nd</sup>	2	1	3
(116E)	Wood Quality	1 <sup>st</sup>	2	1	3
(612E)	Flora and Vegetation of Greece	6 <sup>th</sup>	2	1	3
(422E)	Informatics - Multimedia Applications	4 <sup>th</sup>	2	1	3
(207E)	Wetlands Ecology	2 <sup>nd</sup>	2	1	3



## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(077Y)	Wildlife Management	3	2	5
(057Y)	Forest Management I	3	2	5
(059Y)	Mountain Hydronomics I (Torrent Management and Control I)	3	2	5
(061Y)	Forest Economics I	3	2	5
(064Y)	Wood Technology	3	2	5
(070Y)	Computers	2	2	4

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(114E)	Harvesting of Non Wood Forest Products (Not to be lectured)	1 <sup>st</sup>	2	1	3
(611E)	Trees & Shrubs of Parks and Tree-Rows	6 <sup>th</sup>	2	1	3
(509E)	Soil Classification and Forest Soil Mapping	5 <sup>th</sup>	2	1	3
(603E)	Biological Control of Diseases and Insects (Not to be lectured)	6 <sup>th</sup>	2	1	3
(404E)	Public Relations	4 <sup>th</sup>	2	1	3
(217E)	Range Landscape Ecology	2 <sup>nd</sup>	2	1	3
(604E)	Conservation of Forest Genetic Resources	6 <sup>th</sup>	2	1	3
(113E)	Wood Physics (Not to be lectured)	1 <sup>st</sup>	2	1	3
(115E)	European and Tropical Timbers	1 <sup>st</sup>	2	1	3
(517E)	Environmental Remote Sensing	5 <sup>th</sup>	2	1	3
(519E)	Environmental Geographic Information Systems	5 <sup>th</sup>	2	1	3



# 8<sup>th</sup> semester

## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(068Y)	Range Management and Improvement	3	2	5
(056Y)	Forest Management II	3	2	5
(058Y)	Mountain Hydronomics II (Torrent Management and Control II)	3	2	5
(060Y)	Forest Economics II	3	2	5
(062Y)	Nurseries - Reforestations	2	2	4
(063Y)	Chemistry & Wood Chemical Products	3	1	4

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(104E)	Forest Machine Engineering (Not to be lectured)	1 <sup>st</sup>	2	1	3
(103E)	Wood Preservation and Improvement	1 <sup>st</sup>	2	1	3
(210E)	Rangeland Management Systems	2 <sup>nd</sup>	2	1	3
(108E)	Wood Chemical Technology (Not to be lectured)	1 <sup>st</sup>	2	1	3
(606E)	Pesticides (Not to be lectured)	6 <sup>th</sup>	2	1	3
(402E)	Forestry Extensions	4 <sup>th</sup>	2	1	3
(406E)	Forest Evaluation and Accounting	4 <sup>th</sup>	2	1	3
(506E)	Forest Land Mapping	5 <sup>th</sup>	2	1	3
(608E)	Urban Silviculture	6 <sup>th</sup>	2	1	3
(605E)	Genetics of Forest Species Tolerance to Environmental Pollution	6 <sup>th</sup>	2	1	3
(505E)	Genetic Improvement of Fast Growing Forest Species & Ornamental Trees	5 <sup>th</sup>	2	1	3
(410E)	Environmental Policy and Education	4 <sup>th</sup>	2	1	3
(216E)	Biology of Freshwater Fisheries	2 <sup>nd</sup>	2	1	3
(105E)	Wood Products-Standardization	1 <sup>st</sup>	2	1	3
(106E)	Technology of Glued Wood Products	1 <sup>st</sup>	2	1	3
(515E)	Aromatic, Pharmaceutical and bee-foraging plants	5 <sup>th</sup>	2	1	3
(420E)	Environmental Education	4 <sup>th</sup>	2	1	3
(008E)	Entrepreneurship and innovation (Not to be lectured)	General	2	1	3

# 9<sup>th</sup> semester

## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(065Y)	Forest Policy I	3	2	5
(027Y)	Freshwater Fisheries	3	2	5
(069Y)	Forest Fires	3	2	5
(054Y)	Nature Conservation & Forest Landscaping	2	2	4
(081Y)	Forest Recreation	3	2	5

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(607E)	Environmental Chemistry	6 <sup>th</sup>	2	1	3
(101E)	Wood Products Technology & Wood Mechanical Processing	1 <sup>st</sup>	2	1	3
(205E)	Rangelands Techniques	2 <sup>nd</sup>	2	1	3
(212E)	Range Animal Nutrition	2 <sup>nd</sup>	2	1	3
(313E)	Snow, Skiing Centres	3 <sup>rd</sup>	2	1	3
(311E)	Dam Construction	3 <sup>rd</sup>	2	1	3
(401E)	Financing in Forestry	4 <sup>th</sup>	2	1	3
(403E)	Organization & Administration of Forest Industries	4 <sup>th</sup>	2	1	3
(107E) (407E)	Economics of Forest Industries (Not to be lectured)	1 <sup>st</sup> και 4 <sup>th</sup>	2	1	3
(511E)	Special Applied Silviculture	5 <sup>th</sup>	2	1	3
(609E)	Pollution of the Natural Environment	6 <sup>th</sup>	2	1	3
(109E) (409E)	Marketing of Forest Products (Not to be lectured)	1 <sup>st</sup> και 4 <sup>th</sup>	2	1	3
(117E)	Wood Adhesion and Adhesives	1 <sup>st</sup>	2	1	3
(411E)	Development Policy & European Union	4 <sup>th</sup>	2	1	3
(415E)	Computer Networks in Forestry	4 <sup>th</sup>	2	1	3
(413E)	Didactic of Environmental Education	4 <sup>th</sup>	2	1	3

# 10<sup>th</sup> semester

## Compulsory Courses

Code	Course Title	L (hours)	W or T (hours)	ECTS Units
(066Y)	Forest Policy II	3	2	5
(072Y)	Forest Law	2	1	3

## Elective Courses

Code	Course Title	Orientation	L (hours)	W or T (hours)	ECTS Units
(310E)	Phyto-Techniques	3 <sup>rd</sup>	2	1	3
(110E)	Forest Industries	1 <sup>st</sup>	2	1	3
(202E)	Fisheries Culture	2 <sup>nd</sup>	2	1	3
(408E)	Regional Development	4 <sup>th</sup>	2	1	3
(508E)	Forest Management Plan	5 <sup>th</sup>	2	1	3
(312E)	Torrent, River and Lake Environmental Management	3 <sup>rd</sup>	2	1	3
(414E)	Comparative Forest Legislation (Not to be lectured)	4 <sup>th</sup>	2	1	3
(412E)	Economics of Forest Enterprises (Not to be lectured)	4 <sup>th</sup>	2	1	3
(513E)	Comparative Forest Legislation (Not to be lectured)	5 <sup>th</sup>	2	1	3
(307E)	Applied Hydraulics and Hydraulic Works (Hydronomics)	3 <sup>rd</sup>	2	1	3
(220E) (320E)	Improvement of Rangeland Infrastructure	2 <sup>nd</sup> και 3 <sup>rd</sup>	2	1	3
(610E)	Methods and Means for Forest Fire Suppression	6 <sup>th</sup>	2	1	3
(085E)	Students Internship of A.U.Th	General	-	-	3

## Laboratory training

Laboratory training takes place as following:

### 1. In two (2) groups:

- General Hydraulics & Hydrology, Potamology
- Forest Biometry I
- Forest Biometry II
- Forest Management I
- Forest Economics I
- Forest Economics II
- Mountain Hydronomics I
- Mountain Hydronomics II
- Mechanical Sciences - Applied Mechanics
- Forest Products Harvesting
- Technical Drawing
- Wood Chemistry and Wood Chemical Products

### 2. In three (3) groups:

- Forest Recreation
- Forest Fires

### 3. In four (4) groups:

- Genetic Improvement of Forest Species
- General Silviculture (Forest Ecology)
- General Soil Science
- Forest Aerial Photography
- Forest Botany I
- Forest Botany II
- Forest Genetics
- Forest Management II
- Forest Soil Science
- Forest Road Construction
- Forest Informatics I
- Forest Informatics II
- Forest Opening Up and Wood Transport
- Wildlife Management
- Range Management and Improvement
- Wood Structure and Properties
- Applied Silviculture
- Computers
- Freshwater Fisheries
- Rangeland Ecology
- Nature Conservation & Forest Landscaping
- Wood Technology
- Topography
- Forest Protection I
- Forest Protection II
- Nurseries-Reforestations

### 4. In five (5) groups:

- General Botany-Morphology
- General Botany-Physiology



## CHAPTER 4

### Course Content (Syllabus)

#### Compulsory Courses

### 1<sup>st</sup> semester

#### MATHEMATICS [001Y]

*(Faculty Instructors: have not been defined)*

Functions (algebraic, exponential, logarithmic, trigonometric, transcendental, implicit, parametric), Sequences (the notion of limit, convergence, criteria of convergence), Series (definition, convergence, criteria of convergence), Power Series, Derivative (Derivative Rules, logarithmic differentiation, derivative of implicit and parametric functions, power series, second and higher order derivative), Taylor Polynomial and Taylor series, Applications of derivatives (geometrical applications, Newton-Raphson method for finding the roots of an equation), Complete study of a function (extrema, curvature, asymptote, graphic representation), Integrals (integration of elementary functions, theorem of mean value, the Fundamental Theorem of Calculus), Area under or between curves, Geometric applications, Techniques of Integration (Substitution, Integration by Parts, integration of a rational function), Functions of many variables (domain and continuity, partial derivative, extrema, double integrals), Differential equations (Separable, homogenous, linear of first order).

<https://qa.auth.gr/en/class/1/600180223>

#### ECOLOGY [003Y]

*(Faculty Instructors: T. Zagkas - Professor, T. Tsitsoni - Professor, P. Gkanatsas - Professor)*

Generalities, definitions. Auto-ecology (relations among living organisms and environmental factors). Population ecology (population concept, population characteristics, population regulation mechanisms). Synecology: Ecosystem definition, ecosystem structure and function analysis. Factors affecting ecosystem stability. Cycle of nitrogen (N) and phosphorus (P), cycle of carbon (C), greenhouse effect. Biodiversity, levels (categories) of biodiversity, value of biodiversity and basic principles for its preservation or enhancement.

<https://qa.auth.gr/en/class/1/600175589>

#### GENERAL BOTANY-MORPHOLOGY [005Y]

*(Faculty Instructors: S. Panagiotidis - Associate Professor, P. Alizoti - Associate Professor, Instructors from Other Categories: E. Christopoulos - S.L.T.P.).*

Plant cytology (cytoplasmic organelles, plasma membrane, nucleus, endomembrane system, cytoskeleton, cell wall). Cell cycle and cellular divisions (mitosis-meiosis). Meristems and differentiation. Plant anatomy- macroscopic stem morphology. Stem growth, primary and secondary, stem modifications. Macroscopic leaf morphology, microscopic anatomy. Leaf modifications. Macroscopic morphology of the root. Primary and secondary root growth. Root modifications. Morphology (fruit, sperm, young shoot,

shoot, leaves, root). Cytology (cell biology). Plant anatomy and histology (plant anatomy and related issues). Secondary structures. Morphology and anatomy of the flower, pollination and fertilization. Seed morphology and anatomy, transfer and germination of the seed.

<https://qa.auth.gr/en/class/1/600175594>

### **METEOROLOGY AND CLIMATOLOGY [007Y]**

*(Faculty Instructors: D. Stathis - Professor)*

Meteorological instruments, general knowledge of their function, organization of a meteorological station, processing of meteorological data. Atmosphere: Structure, perpendicular movement, general circulation, radiation, sunshine period, radiation laws. Temperature of earth surface. Relief effect on temperature. Air humidity: evaporation, condensation, showers, fog, dew, white-frost, frost, Atmospheric pressure, general and local winds.

Climatic classifications, climatograms, climate indices. Climate of Greece. Geographic climate factors, sunshine period, cloudiness, days of rain. Rain measurement systems. Climate types of Greece. Description and appearance frequency. Climate change.

<https://qa.auth.gr/en/class/1/600175597>

### **TECHNICAL DRAWING [009Y]**

*(Faculty Instructor: A. Stergiadou - Associate Professor, Instructors from Other Categories: A. Papadimitriou - S.L.T.P., T. Psilovikos- S.L.T.P.)*

Introductory concepts. Structure and architecture of computers. Theory, analysis and design of Information Systems. Principles of data collection techniques and databases. Methodology and processing of data. Introduction to computer networks and project management. Contribution of informatics in Forestry.

<https://qa.auth.gr/en/class/1/600175600>

## **2<sup>nd</sup> semester**

### **GENERAL SOIL SCIENCE [002Y]**

*(Faculty Instructor: A. Papaioannou - Associate Professor, Instructors from Other Categories: O. Mavrokordopoulou - S.L.T.P., I. Pipinis - S.L.T.P.)*

Minerals and rocks from which the soils are developed. Factors and processes of soil formation. Physical properties of the soils. Soil moisture and its importance to plant growth. Soil chemical properties and soil fertility. Classification and mapping of soils.

<https://qa.auth.gr/en/class/1/600183839>

### **GENERAL BOTANY-PHYSIOLOGY [004Y]**

*(Faculty Instructors: E. Barbas - Associate Professor, A. Papaioannou - Associate Professor, Instructor from Other Categories: A. Kyzeridou - S.L.T.P.)*

Water and plant cell. Plant water balance. Inorganic plant nutrition and assimilation of mineral nutrients. Mass flow in the plants. Phloem transport. Photosynthesis: light and dark reactions, effects of environmental factors. Respiration, anabolism and catabolism. Introduction to signal transduction. Plant regulators. Seed dormancy and germination. Introduction to abiotic stress.

<https://qa.auth.gr/en/class/1/600179806>

### **POLITICAL ECONOMY [006Y]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P., M. Makra - S.L.T.P.)*

Introductory concepts. Various economic theories (problems of economic organisation, market prices and types, income determination, nature and value of money, economic theories concerning cost of production factors, inflation and economic fluctuations, state sector, international economic relations, economic development and magnification). Socio-economic systems.

<https://qa.auth.gr/en/class/1/600179809>

### **MECHANICAL SCIENCES-APPLIED MECHANICS [008Y]**

*(Faculty Instructor: A. Stergiadou - Associate Professor, Instructor from Other Categories: T. Psilovikos - S.L.T.P.)*

Subject, fundamental axioms and division of mechanics. Forces, inclinations, charging. Composition and balance of forces, static moments of lines, sites and parts (centre of gravity) isostatic line carriers, fundamental principles of material strength, moment of inertia and moment of resistance. Calculation of orthogonal tensions, shear tension, carrier with rectangular section (with deflection) principles and methods of land impulse designation. Forced concrete for forest technical works.

<https://qa.auth.gr/en/class/1/600179812>

## **3<sup>rd</sup> semester**

### **FOREST BOTANY I (SPERMOPHYTES SYSTEMATICS) [019Y]**

*(Faculty Instructors: K. Theodoropoulos - Professor, E. Eleftheriadou - Professor, S. Panagiotidis - Associate Professor)*

Features, description and classification (taxa) of spermatophytes.

<https://qa.auth.gr/en/class/1/600175607>

### **TOPOGRAPHY [021Y]**

*(Faculty Instructors: V. Giannoulas - Professor, A. Stergiadou - Associate Professor, Instructors from Other Categories: A. Papadimitriou - S.L.T.P., T. Psilovikos - S.L.T.P.)*

Topographical measurements standards, instruments, methods and calculations for horizontal, vertical and tachymetric survey. Plan drawing and area calculation. Clinometers. Distance measurement by electromagnetic method, GPS.

<https://qa.auth.gr/en/class/1/600175610>

### **FOREST SOIL SCIENCE [023Y]**

*(Faculty Instructor: A. Papaioannou - Associate Professor, Instructors from Other Categories: O. Mavrokordopoulou - S.L.T.P., I. Pipinis - S.L.T.P.)*

Soil as a medium for forest vegetation growth. Biological properties of forest soils, organic matter - forest floor - soil organisms. Nutrient recycling in forest-soil ecosystems. Forest soils and hydrological cycle. Effects of clear-cutting and thinning, grazing, agricultural cultivation and fires on forest soils. Forest nursery soils.

<https://qa.auth.gr/en/class/1/600175614>

### FOREST BIOMETRY I [025Y]

*(Faculty Instructor: M. Diamantopoulou - Assistant Professor)*

METHODS OF STATISTICAL ANALYSIS. DEFINITION OF STATISTICS. COLLECTION OF STATISTICAL DATA. MEANS OF COLLECTING STATISTICAL DATA. PRESENTATION OF STATISTICAL DATA. PROCESSING OF STATISTICAL DATA. NUMERICAL DESCRIPTION OF THE PROPERTIES OF THE FREQUENCY DISTRIBUTIONS MEASURES OF SCALE. NUMERICAL DESCRIPTION OF FREQUENCY DISTRIBUTIONS BY FREQUENCIES MEASURES OF DISPERSION. NUMERICAL DESCRIPTION OF THE FREQUENCY DISTRIBUTIONS BY FREQUENCY MEASURES OF FORM. POSSIBILITY ELEMENTS. DISTINGUISHED RANDOM VARIABLES. BINOMIAL DISTRIBUTION. POISSON DISTRIBUTION. NORMAL DISTRIBUTION. PRODUCTS THEORETICAL DISTRIBUTIONS. PARAMETER ESTIMATION. POINT ESTIMATION. EVALUATION OF SPACE. THE DISTRIBUTION OF THE POPULATION. ANALYSIS OF VARIANCE. REGRESSION. MULTI-STAGE SAMPLING. MULTIPHASE SAMPLING. SAMPLING IN SEQUENTIAL CASES.

<https://qa.auth.gr/en/class/1/600175617>

### RANGELAND ECOLOGY [055Y]

*(Faculty Instructors: E. Abraham - Professor, M. Karatassiou - Associate Professor, Instructor from Other Categories: K. Mantzanas - S.L.T.P., M. Papadimitriou - S.L.T.P., A. Sidiropoulou - S.L.T.P., P. Sklavou - S.L.T.P.D. Chouvardas - S.L.T.P.)*

Rangeland ecosystems structure and function. Water relations at the community level. Structure and function of the rangeland ecosystem, Energy, Water and Biogeochemical circuit. Feedback Mechanism in the rangeland ecosystem. Water relations at plant level and community level. Effects of grazing on morphogenesis and physiology of rangeland plants. Mechanisms of plant resistance. Effects of grazing on vegetation and soil. Dynamics of rangeland vegetation, plant physiology and productivity in relation to grazing. Succession and climax stage. Ecological disturbances in rangeland ecosystems.

<https://qa.auth.gr/en/class/1/600175655>

## 4<sup>th</sup> semester

### FOREST BOTANY II (TREES-SHRUBS) [018Y]

*(Faculty Instructors: E. Eleftheriadou - Professor, S. Panagiotidis - Associate Professor)*

Morphological characteristics, general description, biological demands, forest species (trees and shrubs) of Greece natural distribution, distribution of important exotic forest tree species.

<https://qa.auth.gr/en/class/1/600179818>

### GENERAL HYDRAULICS & HYDROLOGY, POTAMOLOGY [080Y]

*(Faculty Instructors: D. Stathis - Professor, M. Sapountzis D. - Associate Professor, D. Myronidis - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

General Hydrology: Hydrological cycle, hydrometeorology, water balance, hydro-measurements analysis. Precipitation origin, measurements, analysis and prognosis of rain and snow, evaporation and transpiration. Underground water flow, underground hydro-carriers, permeability, soil hydraulic parameters. Runoff development, measurement and analysis of surface runoffs and water supply, hydrographs, precipitation-runoff simulations. Extreme runoff events, forecasting of flood events. Characteristics of watersheds, hydrographic networks, receivers, limnography. Methods and applications of technical hydrology. Principles and systems of environmental hydrology. General Hydraulics: Hydrostatics. Principles and equations of hydrodynamics. Open pipes and channels, flow types (steady, uniform and non-uniform, instable), weirs, hydrofalls, watersheds, branching, cross section and slope

changes, flow profile, closed pipes, underground hydraulics, flow inflation, shrinkage and suppression. Lake and coastal hydraulics. Principles and systems of environmental hydraulics.

Potamology: Water flow, cobble movement, formation of fluvial beds, river management works.

<https://qa.auth.gr/en/class/1/600179868>

### **FOREST OPENING UP AND WOOD TRANSPORT [082Y]**

*(Faculty Instructors: V. Giannoulas - Associate Professor, Instructors from Other Categories: A. Papadimitriou - S.L.T.P., T. Psilovikos - S.L.T.P.)*

General principles, definition, possibilities, means, kinds and methods of forest opening up. Factors affecting forest opening up (technical, economic, ecological-environmental and social). Basic principles of planning and selection forest opening up operations, terrain classification. Optimum opening up and calculations of road density, road distance, percentage of opening up and skidding distance. Planning and study of forest opening up employing roads and other installations. Interactions between road opening up and wood logging. Study, design and construction of road network. Definition, objectives and purpose of forest road networks and contribution to the development and utilization of the mountainous and forest lands. Views about planning of forest road networks and contribution to the development and utilization of mountainous and forest lands. Views about planning of forest road networks, related factors, interactions with forestry intensity, definition of wood skidding and transport limits, characterization and classification of forest roads. Data for forest roads study at various soil morphology types, effects of forest road network construction and methods of economic analysis and evaluation of forest road networks. Purpose and types of wood transport. Principles, means, methods and systems of skidding and long distance transport of wood. Modern machinery for skidding and wood transport (terrestrial, aerial and water transport). Skidding and wood transport by tractors (simple and articulated). Operation principles of cable logging systems. Mobile yarders, installation and operation procedures.

<https://qa.auth.gr/en/class/1/600179870>

### **FOREST BIOMETRY II [024Y]**

*(Faculty Instructor: M. Diamantopoulou - Assistant Professor)*

Measurement of harvested wood and other forest products, standing tree measurement and volume estimation. Static (dendrometry) and dynamic stand volume estimation (forest mensuration).

<https://qa.auth.gr/en/class/1/600179822>

### **FOREST PLANT SOCIOLOGY [026Y]**

*(Faculty Instructor: K. Theodoropoulos - Professor, Instructor from Other Categories: E. Christopoulos - S.L.T.P.).*

General plant-sociological principles, plant population analysis methods, determination of plant-sociological units and types, Greek forest vegetation classification, practical applications of plant-sociology.

<https://qa.auth.gr/en/class/1/600179824>

## **5<sup>th</sup> semester**

### **FOREST ROAD CONSTRUCTION [037Y]**

*(Faculty Instructors: V. Giannoulas - Associate Professor, A. Stergiadou - Associate Professor, Instructors from Other Categories: T. Psilovikos - S.L.T.P., A. Papadimitriou - S.L.T.P.).*

General about the road construction, the roads, the vehicles and their historical development. Road classification, general aspects for the study and laying out of roads. Subject, purpose, historical



development and separations of forest road construction , classification of forest roads. Data for the study and the laying out of forest roads. laying out, process and drawing up the forest road surveying . report of general recognition , preliminary or recognition study, final study, indirect and direct laying out. Construction of forest roads, infrastructure construction, study of soil natural properties, soil mechanical, soil technical problem sand research. Soil classification, surface preparation for road construction, excavations, rock removal, soil transport, surface formation and construction of embankments, drainage works. Construction of technical works (ditches, drains, bridges, support walls etc.) Construction of forest road's surface structure, earthen roads, forest roads with stabilized surface and surface's stabilization methods. Calculation of road pavement's thickness, flexible pavements from concrete. Calculation and construction of technical projects. Knowledge of soil mechanics for the erosions, the landslides and precipitations of slopes, protection of slopes with biological mechanics methods, phytotechnical correction of stability, covering and draining of constructions and selection of methods and construction materials. Maintenance of forest roads ant the effects on the environment by the construction of forest roads.

<https://qa.auth.gr/en/class/1/600175629>

### **GENERAL SILVICULTURE (FOREST ECOLOGY) [039Y]**

*(Faculty Instructors: T. Zagkas - Professor, P. Gkanatsas - Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P., I. Pipinis - S.L.T.P., M. Tsakaldimi - S.L.T.P.)*

Definition of the forest and analysis of forest bio-community. Types of forests and their distribution. Auto-ecology (relations of forest species to environmental factors). Synecology (definition of ecosystems, structure and function of forest ecosystems). Ecology of growth (effect of environmental factors on the growth of forest trees).

<https://qa.auth.gr/en/class/1/600175631>

### **FOREST PROTECTION I (FOREST PATHOLOGY) [041Y]**

*(Faculty Instructor: A. Dimitrakopoulos - Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P.)*

Non-infectious diseases of forests. Taxonomy and ecology of fungi. Control of forest diseases. Diseases of forest trees. Wood decay.

<https://qa.auth.gr/en/class/1/600175637>

### **WOOD STRUCTURE AND PROPERTIES [043Y]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Physical and macroscopic characteristics, identification of wood. Microscopic structure, chemical composition and wood infrastructure. Mechanism of wood formation. Variation and abnormalities of wood structure. Density, hygroscopicity, shrinkage and swelling of wood. Mechanical, thermal, electrical and acoustic properties. Natural durability of wood.

<https://qa.auth.gr/en/class/1/600175641>

### **FOREST GENETICS [045Y]**

*(Faculty Instructors: A. Skaltsogiannis - Professor, F. Aravanopoulos - Professor, P. Alizoti - Associate Professor, E. Barbas - Associate Professor, M. Tsaksira P. - Associate Professor, P. Tsoulpha - Associate Professor)*

Forest Genetics - Concepts, scope, history and importance. Molecular basis of inheritance - Genome organizatio, Gene structure and regulation, formation of gametes. Transmission genetics - chromosomes, recombination and linkage. Genetic markers - Morphological, biochemical and molecular. Population

genetics - gene frequencies, inbreeding and forces of evolution, Quantitative genetics - Polygenic traits, heritabilities and genetic correlations.

<https://qa.auth.gr/en/class/1/600175645>

### **FOREST INFORMATICS I [079Y]**

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Introduction to Information systems. Development of Information systems. Introduction in operational systems. Structure of operational systems. Management of the Central Processing Unit. Memory management. File directories program and data files. Main commands description of operational systems. Principles and goals of programming. Structured programming. Flowcharts and algorithms. Data structures, files and file types. environmental data organization. Chains, rings, trees. Access techniques. Object-oriented programming. Contribution of Informatics in forest sector.

<https://qa.auth.gr/en/class/1/600175683>

## **6<sup>th</sup> semester**

### **GENETIC IMPROVEMENT OF FOREST SPECIES [036Y]**

*(Faculty Instructors: A. Skaltsogiannis - Professor, F. Aravanopoulos - Professor, P. Alizoti - Associate Professor, E. Barbas - Associate Professor, M. Tsaktsira P. - Associate Professor, P. Tsoulpha - Associate Professor)*

Introduction. Breeding objectives and programmes. Variation of species, populations, stands, trees and its origin, study methods. Provenance, terminology, importance to breeding. Artificial selection, methods of its application in forest tree breeding. Genetic testing, estimation of heritability and genetic gain. Vegetative propagation, methods, topophysis, consequences. Hybridization (natural - artificial), aims, methods. Introduction of exotics, methods, species selection. Mutations - biotechnology. Breeding for disease resistance and wood quality.

<https://qa.auth.gr/en/class/1/600179830>

### **APPLIED SILVICULTURE [038Y]**

*(Faculty Instructors: T. Tsitsoni - Professor, T. Zagkas – Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P., I. Pipinis - S.L.T.P., M. Tsakalimi - S.L.T.P.)*

Stand knowledge (distinction of stands according to their type of establishment, structure and composition). Natural forest regeneration (basic methods). Artificial stand establishment. Forest silviculture (general principles, silvicultural measures, seedling stands silviculture, tending at stages: seedling, sampling, pole wood, trunk wood, pruning, thinning of secondary stands. Coppice forest conversion. All aged forest silviculture. Current condition of Greek forests and contributing factors.

<https://qa.auth.gr/en/class/1/600179832>

### **FOREST PROTECTION II (FOREST ENTOMOLOGY) [040Y]**

*(Faculty Instructor: A. Dimitrakopoulos - Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P.)*

Morphology and taxonomy of insects. Ecology and control of forest insects. Insects of forest trees. Wood insects.

<https://qa.auth.gr/en/class/1/600179834>

### **FOREST PRODUCTS HARVESTING [042Y]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Equipment, operations, systems, ergonomics, environmental impact and operational organisation of forest product harvesting. Processing, grading (assortment classification), transport of wood and non-wood forest products.

<https://qa.auth.gr/en/class/1/600179836>

### **FOREST AERIAL PHOTOGRAPHY [044Y]**

*(Faculty Instructor: I. Gitas - Professor)*

Historical development. Electromagnetic radiation. Instruments and means of aerial photographing planning. Geometry of aerial photography and its scale. Displacement, stereoscopic parallax, radiant triangulation. Stereoscopic observation. Stereoscopic types. Vertical measurements. Horizontal measurements. Mapping by aerial photographs. Orthophotographs, orthophotomaps. Aerial photo-interpretation. Aerial photography applications in forestry. Measurement of various parameters of trees and stands. Forest inventory. Special applications of aerial photography in hydronomy, wildlife management, range management, recreation, forest protection and road construction.

<https://qa.auth.gr/en/class/1/600179838>

### **FOREST INFORMATICS II [084Y]**

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Databases. Architecture of database management systems. Methods for the design and organization of databases (hierarchical model, plex model, relational models). Structure Query Language - SQL. Operations and advantages of databases. Computer networks and project management. Applications in forestry and natural environment.

<https://qa.auth.gr/en/class/1/600179871>

## **7<sup>th</sup> semester**

### **WILDLIFE MANAGEMENT [077Y]**

*(Faculty Instructors: Bakaloudis - Professor)*

History and goals of wildlife management. Decision analysis, feasible options and failures in wildlife management. Methods of estimating population parameters, estimation of abundance, growth rates, reproduction, mortality, dispersion, food habits and genetic structure. Experimental design and sampling techniques. Wildlife management techniques, capture, marking, radio-telemetry, blood sampling, artificial nest-sites.

Characteristics of animal community. Conservation of endangered species. Causes of species and population extinction. Minimum viable population size and population viability analysis. Estimation of maximum sustainable yield in game species population. Causes and prevention of damage by vertebrate pest species. Conservation of biodiversity and management of animal community. Criteria for protected areas establishment. Processes of protected areas degradation. Conservation, management, restoration of wildlife habitat within protected areas. Human impacts (pollution, global warming, roads, wind farms, electrocution, invasive species etc) on wildlife and their mitigation measures.

<https://qa.auth.gr/en/class/1/600175681>

## **FOREST MANAGEMENT I [057Y]**

*(Faculty Instructors: I. Gitas - Professor, N. Nanos - Associate Professor, Instructors from Other Categories: M. Makra - S.L.T.P.)*

Forest Ecosystem Management & Forest Management: Introductory Concepts. Historical development of Forest Management Science. Definition of management science (Management functions). Classical principles and objectives of forest management. Basic management concepts. Management of multiple ecosystem functions. Adaptive forest management. Integrated management of natural resources. Participatory processes. Forest management and legislative framework. Forest management and forest research. Forest management plans. Collection of management data. Geographical databases (Land use map, Management maps, Forest cover maps, Soil maps). Satellite information (LANDSAT, SENTINEL, MODIS, etc.). Aerial photographs. Forest data (forest inventory). Other data / data (property, research, climate, historical, etc.). Management tools. Basic principles of timber stock management in even aged stands. Yield tables, Individual based models. Basic principles timber stock management in uneven aged stands. Diameter distribution models. Optimal management decision making techniques. Introductory concepts of business research. Development of alternative management scenarios. Optimal cluster density management. Optimal management decision making techniques. Linear Programming. Goal planning. Detailed hierarchy process. Heuristic Optimization Methods (Genetic Algorithms, Tabu search, Simulated annealing).

<https://qa.auth.gr/en/class/1/600175657>

## **MOUNTAIN HYDRONOMICS I (TORRENT MANAGEMENT AND CONTROL I) [059Y]**

*(Faculty Instructors: D. Stathis - Professor, M. Sapountzis D. - Associate Professor, D. Myronidis - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Torrent streams (definitions, classification, action, damages and their estimation, torrential danger). Mountainous basins, plain banks and plain areas. Torrential environment (potential), torrential types. Natural environment and torrential action. Hydrology of the torrential area (drainage network, evaporation, percolation, underground water, springs, water quality. Torrential flow (determination of discharge). Natural and anthropogenic sediment derivation (erosion, landslides, landslips). Sediment discharge. Sediment transport. Alluviums. Hydrological and protective influence of vegetation.

<https://qa.auth.gr/en/class/1/600175659>

## **FOREST ECONOMICS I [061Y]**

*(Faculty Instructors: S. Tampakis - Associate Professor, I. Gitas - Professor)*

Introduction to forest economics. Economics of forest production factors. Demand and supply of forest products, forest firms. Forest product marketing.

<https://qa.auth.gr/en/class/1/600175661>

## **WOOD TECHNOLOGY [064Y]**

*(Faculty Instructors: have not been defined)*

Production technology (raw material, machines, processing, technological conditions) of wood products (poles, stakes, saw wood, parquets, veneers, plywood, laminated wood, particle board, fibre board, other composite products). Properties and uses of wood products.

<https://qa.auth.gr/en/class/1/600175668>

## COMPUTERS [070Y]

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Introduction in Computers, introductory definitions, historic review, Information Systems, problem solution with Information Systems. Introduction to programming language. programming Commands and prerequisites, functions and subroutines. It Applications for Forestry. Modern software applications in Forestry.

<https://qa.auth.gr/en/class/1/600175674>

## 8<sup>th</sup> semester

### RANGE MANAGEMENT AND IMPROVEMENT [068Y]

*This class is split up into two distinct groups:*

*(Faculty Instructors: E. Abraham - Professor, Z. Parissi - Associate Professor, M. Karatassiou - Associate Professor, Instructors from Other Categories: K. Mantzanas - S.L.T.P., M. Papadimitriou - S.L.T.P., A. Sidiropoulou - S.L.T.P., P. Sklavou - S.L.T.P., D. Chouvardas - S.L.T.P.)*

*(Faculty Instructors: M. Yiakoulaki - Professor, Instructors from Other Categories: K. Mantzanas - S.L.T.P., M. Papadimitriou - S.L.T.P., A. Sidiropoulou - S.L.T.P., P. Sklavou - S.L.T.P., D. Chouvardas - S.L.T.P.)*

Rangeland use, carrying capacity, range production improvement. Range relationships with domestic and wild ungulates. Planning procedures, conditions and economic impacts of grazing management systems. Grazing projects development. Range policy.

<https://qa.auth.gr/en/class/1/600179857>

### FOREST MANAGEMENT II [056Y]

*(Faculty Instructors: I. Gitas - Professor, N. Nanos - Associate Professor, Instructor from Other Categories: M. Makra - S.L.T.P.)*

Introduction. Block-based management methods. The normal forest. Methods of calculating the sustainable yield. The stand-based management method. Methods of even-aged forest management. Management of multiple purposes / functions. Special-purpose forest management.

<https://qa.auth.gr/en/class/1/600179846>

### MOUNTAIN HYDRONOMICS II (TORRENT MANAGEMENT AND CONTROL II) [058Y]

*(Faculty Instructors: D. Stathis - Professor, M. Sapountzis D. - Associate Professor, D. Myronidis - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Protection of the natural environment and torrent control (protection, hydrological correction, process regulation, exploitation of water). Principles and torrent correction systems, water production. Torrent types and their correction. Technical, and phyto-technical works. Systems of torrential phenomena control (erosions, weathering, landslides, landslips). Debris-flow and mud-flow systems control. Study and construction of flood control reservoirs and dams, sediment control dams, open dams, deposit dams, beam dams, screen dams. Study and construction of technical beds and ditches. Adaptation of torrent control works in the natural environment. Torrent control and regional development.

<https://qa.auth.gr/en/class/1/600179848>

### FOREST ECONOMICS II [060Y]

*(Faculty Instructors: S. Tampakis - Associate Professor, I. Gitas - Professor)*

Social and economic planning in forestry, forest firm management plan. Macroeconomics and microeconomics analysis in forest firms.



<https://qa.auth.gr/en/class/1/600179850>

### **NURSERIES - REFORESTATIONS [062Y]**

*(Faculty Instructors: T. Zagkas - Professor, P. Gkanatsas - Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P., I. Pipinis - S.L.T.P., M. Tsakalimi - S.L.T.P.)*

Purpose of reforestations. Basic principles followed during reforestations. Selection and control of seeding material. Methods of stand artificial establishment. Stand artificial establishment by seeding and planting. Site choice for forest nursery establishment. Forest nursery plan. Bareroot seedling production. Forest nursery irrigation. Seedling treatment and protection. Seedling extraction, packaging and transport. Seedling preservation. Seedling production with rootsoil. Vegetative production of plantlets and seedlings. Seedling fertilization. Reforestation plan.

<https://qa.auth.gr/en/class/1/600179852>

### **CHEMISTRY & WOOD CHEMICAL PRODUCTS [063Y]**

*(Faculty Instructors: have not been defined)*

Chemical composition and chemical analysis of wood components. Characteristics, properties and chemical reactions of wood components (cellulose, hemicelluloses, lignin, ash and extracts). Chemical properties and behavior of wood, modification and preservation, protection of wood, production of chemical products from wood, wood and wood components-based products and extractives, pulp and paper, methods of energy production from wood, biofuels.

<https://qa.auth.gr/en/class/1/600179853>

## **9<sup>th</sup> semester**

### **FOREST POLICY I [065Y]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P., M. Makra - S.L.T.P.)*

The aims of Forest Policy are studied thoroughly, their evaluation, the decision making and the suitable tools for their achievement. More specifically, the course examines the basics and the principles of Forest Policy, the relation of Forest Policy with natural environment, and mostly the relation forest-people. Terms such as forest ownership, forest faith and forest insurance are clarified, while the legislation framework of forest co-operatives is analyzed. The social role of forestry and the organization of forest law are distinctly mentioned.

<https://qa.auth.gr/en/class/1/600175669>

### **FRESHWATER FISHERIES [027Y]**

*(Faculty Instructor: A. Kokkinakis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

Physico-chemical characteristics of inland waters. In general about the fish. External morphology, anatomy and physiology of fish. Description of biological systems (respiratory, circulatory, endocrine, digestive, reproductive). Geographical distribution and migrations of fish. Ichthyological zones of running waters. Types of fish spawning. Gonad maturation, spawning, sex differentiation. Incubation and embryonic development. Age and growth of fish. Age determination from scales, otoliths etc., control precision of age calculating. Growth, length - weight relationships, condition factor, specific growth index. Fecundity and egg size of fish, changes with age and size. Diet and feeding habits of fish, methods of stomach contents analysis. Methods for estimating fish populations. Mortality and survival of fish. Inland fisheries management. Characteristics of fish habitats, differences between running and stagnant inland waters.

Classification and morphology of rivers and lakes. Fishery improvement operations, improvement the living conditions of fish and the spawning places. Inland fisheries legislation.

<https://qa.auth.gr/en/class/1/600175621>

### **FOREST FIRES [069Y]**

*(Faculty Instructor: A. Dimitrakopoulos - Professor, Instructors from Other Categories: M. Aslanidou - S.L.T.P., O. Mavrokordopoulou - S.L.T.P.)*

Forest fires and the environment. Ecology and forest fires in Greece. Forest fuels. Meteorology conditions and forest fires. Fire danger rating. Fire prevention. Prescribed burning. Chemicals, tools and machinery used in fire control. Fire control in practice.

<https://qa.auth.gr/en/class/1/600175673>

### **NATURE CONSERVATION & FOREST LANDSCAPING [054Y]**

*(Faculty Instructor: T. Tsitsoni - Professor, P. Gkanatsas – Professor, Instructors from Other Categories: O. Mavrokordopoulou - S.L.T.P., M. Tsakalimi - S.L.T.P.)*

General, definitions, current research trends. Natural areas under protection, types. Fauna and flora species under protection. Nature conservation in Greece. Natural site analysis. Treatment, management of natural sites. Landscaping of artificial sites. Human activities and landscape. Analysis of effects and influences on the landscape. Landscape restoration.

<https://qa.auth.gr/en/class/1/600175654>

### **FOREST RECREATION [081Y]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P., M. Makra - S.L.T.P.)*

Introduction. Recreation, quality of life. Social, economic and land planning characteristics of forest recreation. Offer and demand for forest recreation areas. Social and economic impact of forest recreation. Evaluation methods of economic value of recreation areas. Land planning of recreation areas. Management of recreation areas. Forest recreation and other uses of natural resources. Recreation perspectives. Forest tourism. Contribution of forest tourism to regional development. Recreation in urban and national parks.

<https://qa.auth.gr/en/class/1/600175686>

## **10<sup>th</sup> semester**

### **FOREST POLICY II [066Y]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P., M. Makra - S.L.T.P.)*

Forest Policy particularly in Greece. Presentation of Greek forestry. The evolution of Greek Forestry is historically examined, while the problems and weaknesses are analyzed. Development perspectives of Greek Forestry are studied and the planning of the national forestry strategy is presented. The views of Forest Policy regarding the protection and preservation of natural capital are designated, while forest taxation issues are explored. Forest Administration is studied as well, emphasizing on the organization and management of Greek forest industries.

<https://qa.auth.gr/en/class/1/600179856>

## FOREST LAW [072Y]

*(Faculty Instructor: S. Tampakis - Associate Professor)*

Rules of law and separation of powers. Scope of forest legislation. Subjects of legal relationships. Rights in Greek law. Recognition of rights in rem. Rights on forests. Progression of the Greek forest legislation over time. Forests and natural environment in the 1975 Constitution and its Revision. Forests in International and European Community Law. International Organizations and Institution on forests. Fundamental principles of the Greek and European Community legal order for the protection of forestry wealth.

<https://qa.auth.gr/en/class/1/600179860>

## Elective Courses

### 1<sup>st</sup> semester

#### SOCIOLOGY [001E]

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

Subject of sociology and research methods. Evolution of the sociological concept. Theory of the society. Population. Social units. Rural community and mountainous populations. Social classes. Socialization. Social and economic transformations. Social systems. Social policy. Social planning and control. Social problems. Social indices.

<https://qa.auth.gr/en/class/1/600180224>

#### PETROGRAPHY - GENERAL & ENGINEERING GEOLOGY [003EA]

*(Faculty Instructors: Myronidis - Associate Professor)*

Elements of crystallography, mineralogy. Earth composition. Rock forming minerals. Categories of rocks (pyrogenic, sedimentary, metamorphic rocks). Elements of general geology, geotectonic and technical geology. Mechanics and natural properties of rocks. Elements of rock engineering.

<https://qa.auth.gr/en/class/1/600175588>

#### GENERAL CHEMISTRY [005E]

*(Faculty Instructors: have not been defined)*

Basic principles of chemistry. Chemical and physicochemical bonds. Ionized and non-ionized solutions. Electrolytic solutions. Electrolysis. Redox systems. Ionic balance in acid, base, salt solutions. Colloids. Principles of analytical chemistry, methods, instruments. Organic Chemistry: introduction to alcohols, carbonic and bi-carbonic acids, carboxyl and carbonyl compounds, ethers, nitrogen compounds, carbohydrates, phenols, aromatic hydrocarbons. Sugars, fats, oils, proteins, alkaloids, hormones, enzymes, resins and gums, tannins, natural product polymers.

## 2<sup>nd</sup> semester

### ZOOLOGY [002E]

---

*(Not to be lectured)*

Darwin's theory, evolution. Patterns and mechanism of reproduction in animals. Principles of development, development of tissues, organs and systems in animals. Architectural pattern of an animal. Classification and phylogeny of animals.

Characteristics, structure, movements, reproductive, digestive and feeding systems of Protozoa, Molluscs, Annelids, Arthropods, Insects, Fishes, Reptiles, Amphibians, Birds and Mammals.

<https://qa.auth.gr/en/class/1/600183841>

### PHYSICS [004E]

---

*(Faculty Instructors: have not been defined)*

Preliminaries: Introduction. Measurements - units - dimensions. Examples - Problems. Mechanical properties of matter: Solids, liquids and gasses. Density, stress, pressure. Elastic deformation strain. Surface tension in liquids. Adhesion and capillary action. Hydrostatic pressure. Important principles of hydrostatics. Atmospheric pressure. Hydrodynamics. Laminar flow. Bernoulli's equation. Viscosity. Laminar flow rate. Turbulent flow. Examples - Problems. Electrostatics: Electric charge. Coulomb's law. Electric field. Gauss' law. Examples - Problems.

<https://qa.auth.gr/en/class/1/600179805>

### INTRODUCTION TO FOREST INFORMATICS [006EA]

---

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Basic concepts of information technology, information systems design, data files, databases, computer networks, Internet, Forest Informatics, Green Informatics, Sensor networks, environmental monitoring.

<https://qa.auth.gr/en/class/1/600179808>

## 3<sup>rd</sup> semester

### BUILDING AND CONSTRUCTION MATERIALS [301E]

---

*(Faculty Instructor: A. Stergiadou - Associate Professor)*

Rock properties, quarries, natural and artificial aggregate materials (gradation, calculation liquid limit, plasticity and plasticity index), categories of construction materials, cements, mortars, reinforced concrete (materials, processing, reinforcing steel), steel parts, steel constructions, masonry, insulation, components, materials and calculation of building construction (rooms, floors, stairs, roofs) and plants operation (heating, ventilation, water supply and sanitation).

<https://qa.auth.gr/en/class/1/600175733>

### PHYSICAL GEOGRAPHY - GEOMORPHOLOGY [303EA]

---

*(Faculty Instructors: D. Myronidis - Assistant Professor, M. Sapountzis - Assistant Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Forms of earth crust under the influence of erosions, depositions, volcanoes etc. Relation of climate and morphology, human influences, earth morphology. Geomorphologic action of wind, glaciers, coastal geomorphology. Classification of major forms of earth relief. Oceanography, lakes, earth surface imaging.

Forms of earth crust under the influence of erosions, depositions, volcanoes etc. Relation of climate and morphology, human influences, earth morphology. Geomorphologic action of wind, glaciers, coastal geomorphology. Classification of major forms of earth relief. Oceanography, lakes, earth surface imaging.  
<https://qa.auth.gr/en/class/1/600175735>

### **PHYSIOLOGY OF FOREST TREES [501E]**

*(Faculty Instructor: E. Barbas - Assistant Professor)*

Physiology and ecophysiology of forest trees (water balance, photosynthesis, nitrogen biological binding and metabolism, physiology of germination and ageing, factors affecting tree metabolism, tree physiology under extreme environmental conditions).  
<https://qa.auth.gr/en/class/1/600175769>

### **WILDLIFE BIOLOGY [213E]**

*(Faculty Instructors: D. Bakaloudis - Professor)*

Characteristics and taxonomy of wildlife species. Ecological concepts, energy flow, food relationships and webs. The value of wildlife. Spatial and temporal variation of communities. Characteristics, availability and management principles of wildlife habitats. Dispersion, dispersal, daily and seasonal movements and migration of wildlife species. Home-range size and features. Breeding strategies and reproductive rates. Mortality patterns and causes. Density-dependent and density independent mortality and reproduction. Laboratory exercises in the morphology, systematics, biology and species identification of the main terrestrial vertebrates (mammals, birds, reptiles and amphibians) of Greece.  
<https://qa.auth.gr/en/class/1/600175718>

## **4<sup>th</sup> semester**

### **FOREST SOIL FERTILITY [502E]**

*(Faculty Instructor: A. Papaioannou - Assistant Professor)*

Introduction about soils and particularly for forest soils. Factors affecting soil fertility and plant growth. Assessment of soil fertility. Soil nutrients and plant nutrition. Improvement of soil fertility, fertilizers. Use of fertilization in forestry.  
<https://qa.auth.gr/en/class/1/600179938>

### **FORAGE PLANTS [204E]**

*(Faculty Instructor: Z. Parissi - Assistant Professor, Instructors from Other Categories: M. Papadimitriou-S.L.T.P., K. Mantzanas - S.L.T.P.,)*

Classification of native rangeland plants of the country with emphasis to the families Poaceae and Fabaceae. Specifically, study the ecological types their growth (herbaceous annuals and perennials, shrubs) the height spread (low, mountainous and subalpine vegetation zone wide), the economic value, the strength to grazing, the their capacity to adapt into different environments, their resistance to stress conditions the competitive ability, nutritional value, the grazing preference and the managerial characteristics. The worldwide effects of long-term grazing on rangeland biodiversity.  
<https://qa.auth.gr/en/class/1/600179887>



### FRESHWATER ECOLOGY [214E]

*(Faculty Instructor: A. Kokkinakis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

About natural waters in general: water cycle and its distribution in nature, running waters (rivers, streams, torrents), classification of rivers, rivers zoning, springs and estuaries.

Abiotic agents:

Physical agents: Light, Transparency, Color, Temperature, Suspended solids, movements and water flow, water quality criteria.

Chemical agents: Oxygen, Biochemical Oxygen Demand, Carbon dioxide, hydrogen ion concentration (pH), electrical conductivity, Anions, about chemical salts, carbonic acid salts, Alkalinity, Halogens, Salinity, Nitrogen, Phosphorus, Calcium, Micronutrients, water quality criteria.

Biotic factors: About biotic factors in running waters, Plankton, Phytoplankton, Zooplankton, the structure of their populations, their movements and dynamics. Annual and seasonal variations of their populations, their nutrition and reproduction.

Benthic organisms, Phytobenthos, Zoobenthos, diet and life cycles.

Waterfowl: fish, diet and food habits, reproduction, fecundity, age and growth.

Food chains, productivity and eutrophication of natural waters.

<https://qa.auth.gr/en/class/1/600179895>

### INTRODUCTION TO REGRESSION [416E]

*(Not to be lectured)*

Introductory concepts, simple linear regression, multiple linear regression, non-linear regression, other types of regression.

### ECONOMICS OF NATURAL RESOURCES [418E]

*(Not to be lectured)*

Introduction to the economics of natural resources, definitions, basic concepts, economics of natural resources and environmental economics, techniques and methods of economic analysis of natural resources and environment, practical applications.

## 5<sup>th</sup> semester

### FOREST CADASTRE [305E]

*(Faculty Instructor: V. Giannoulas - Associate Professor, Instructors from Other Categories: T. Psilovikos - S.L.T.P., A. Papadimitriou - S.L.T.P.)*

Introduction and general principles, elements of geodesy, trigonometrical networks, photo-intepretation and photogrammetry elements, practice on photogrammetric instruments for cadastre use, means and methods of map production, evaluation and appraisal of methods on cadastre with respect to land ownership values, data required for surveying and securing the ownership of forest land.

<https://qa.auth.gr/en/class/1/600175736>

### EXPERIMENTAL DESIGN [503E]

*(Not to be lectured)*

Introduction. Fundamentals of experimental design. Basic experimental designs and factorial designs. split-plot designs and other experimental designs.

### **RANGELAND ECOPHYSIOLOGY [201E]**

*(Faculty Instructor: M. Karatassiou - Associate Professor, Instructors from Other Categories: M. Papadimitriou - S.L.T.P., P. Sklavou - S.L.T.P.)*

Description: Analysis of the relationship dynamics between plant function and microenvironmental parameters change, in particular drought and radiation.

Contents: 1) Environment-Microclimate, 2) Function of microclimatic parameters (CO<sub>2</sub>, H<sub>2</sub>O, PAR, T oC etc) and production 4 ) Photosynthesis-Drought 5) Mechanisms of adaptation to drought 6) Indicators of resistance to drought (WUE, A/gs).

<https://qa.auth.gr/en/class/1/600175709>

### **HISTORY OF FOREST VEGETATION [601E]**

*(Faculty Instructor: S. Panagiotidis - Associate Professor)*

History of forest vegetation and research methods, pollen analysis methods and application of its results, time division of the historic vegetation development within the European continent, history of forest vegetation in Greece.

<https://qa.auth.gr/en/class/1/600175781>

### **MACHINERY APPLICATION IN TORRENT MANAGEMENT AND FOREST ENGINEERING WORKS [317E]**

*(Faculty Instructors: V. Giannoulas - Professor, A. Stergiadou - Associate Professor, Instructors from Other Categories: A. Papadimitriou - S.L.T.P., T. Psilovikos - S.L.T.P.)*

Application of different machines in hydromonics and forest engineering works.

<https://qa.auth.gr/en/class/1/600175745>

### **AVIAN ECOLOGY [211EA]**

*(Faculty Instructors: D. Bakaloudis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

This course will teach students to introductory issues of avian ecology, social organization, breeding systems and reproductive strategies, and migration strategies of birds. Furthermore, distribution models, habitat selection and foraging theory. It will also teach the factors that influence the breeding period, clutch size and habitat selection. It will demonstrate examples of survival strategies, interspecific relationships and prey-predator interactions focusing on birds. It will also demonstrate handling techniques, such as capturing, ringing, radio-telemetry, blood sampling, captive breeding, as well as habitat management techniques, such as artificial nest establishment etc.

<https://qa.auth.gr/en/class/1/600175716>

### **FOREST ERGONOMICS [111E]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Human-Labour/Work/Operation - Ergonomics Work Science. Fundamental terms of structuring work systems. Elements of work physiology. Factors of the working environment. Design and formation of work systems. Work temporal studies. Remuneration of forest operations. Work psychology and sociology. Operational safety and accident prevention. Organisation of forest operations in Greece.

<https://qa.auth.gr/en/class/1/600175702>

### **SAMPLING [504E]**

*(Not to be lectured)*

Simple random sampling. Stratified random sampling. Systematic sampling. Sampling with unequal probabilities. Multi-stage sampling. Multi-phase sampling. Successive sampling. Other sampling methods.

### **GENETIC IMPROVEMENT OF RANGE SPECIES [206E]**

*(Faculty Instructor: E. Abraham - Professor, Instructors from Other Categories: A. Sidiropoulou - S.L.T.P., D. Chouvardas - S.L.T.P.)*

The main range species in Greece: distribution - origin - evolution - cytology. Genetic variation and its use. Methods of breeding pertinent to range species. Seed production.

<https://qa.auth.gr/en/class/1/600175713>

### **SOIL MECHANICS AND FOUNDATIONS [302E]**

*(Faculty Instructor: A. Stergiadou - Associate Professor)*

Introduction and general principles, elements of soil dynamics, properties, classification and control of soil strength, foundations of technical works, slopes stability, pavement construction and strength control. Engineering characteristics of soils and soil testing-soil explorations. Design of foundations, embankments and cut slopes. Drainage for forest roads. Stresses in soils and pavements. Bearing capacity, shear failures. Stresses due to load, effect of tire pressure, combined stresses. Frost heave, loss of strength during frost melting. Protection of forest ecosystem due to prediction of embankment settlement.

<https://qa.auth.gr/en/class/1/600175734>

## **6<sup>th</sup> semester**

### **WOOD IDENTIFICATION [102E]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Characteristics of wood, methods and techniques of macroscopic and microscopic identification.

<https://qa.auth.gr/en/class/1/600179874>

### **GAME PROPAGATION - HUNTING RESERVES MANAGEMENT [215E]**

*(Faculty Instructors: D. Bakaloudis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

Anatomy, physiology and embryology of birds. Incubation and rearing of game birds. Artificial propagation of pheasant, quail and partridge. Nutrition and diseases of game birds. Propagation of game mammals. Rearing and releasing techniques (pheasant, grey partridge, brown hare).

<https://qa.auth.gr/en/class/1/600179896>

### **FOREST HYDROLOGY AND WATER RESOURCES [314E]**

*(Faculty Instructor: D. Stathis - Professor, D. Myronidis - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Relationship between forest vegetation and precipitation, snow, evapo-transpiration. soil water bed, water flow and water quality.

<https://qa.auth.gr/en/class/1/600179912>

### **FOREST CONSTRUCTIONS [306E]**

*(Faculty Instructor: A. Stergiadou - Associate Professor, Instructor from Other Categories: T. Psilovikos - S.L.T.P.)*

General principles and methods of construction, reinforced concrete elements, calculus and construction of drains, forms and calculation of retaining walls, types and calculation of bridges, wooden constructions, static calculations of forestry projects and stability control.

<https://qa.auth.gr/en/class/1/600179905>

### **TECHNICAL WORKS & NATURAL ENVIRONMENT [308E]**

*(Faculty Instructors: V. Giannoulas - Associate Professor, A. Stergiadou - Associate Professor, Instructors from Other Categories: A. Papadimitriou - S.L.T.P., T. Psilovikos- S.L.T.P.)*

Introduction and general principles, technical works as elements of landscape disturbance and development of the region. Adaptation technical works in the natural environment (planning, design and construction) and means to ensure their construction. Economic and environmental impacts of development projects.

<https://qa.auth.gr/en/class/1/600179951>

### **RANGELAND PROTECTION AND LANDSCAPING [218E]**

*(Faculty Instructors: E. Abraham - Professor, M. Karatassiou - Associate Professor, Instructor from Other Categories: A. Sidiropoulou - S.L.T.P., K. Mantzanas - S.L.T.P.)*

Range landscape definitions and analysis. Current trends and evolutions of range landscape conservation and designing. Livestock and wildlife animal grazing as a tool for range landscape diversification. Range landscape conservation regulations. Suitable plants for range landscaping. Use of fertilizers, weed control etc. as tools for range landscaping.

<https://qa.auth.gr/en/class/1/600179899>

### **WOOD QUALITY [116E]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Definition of wood quality. Natural and growth-related defects and their relations to wood quality and utilization. Influences of the environment, silvicultural and harvesting practices, forest management and heredity on wood quality. Secondary defects developed after tree harvesting and during wood processing, uses (defect types, causes, preventive measures). Anatomical features, deviations from normal structure and relations to wood quality, properties and industrial utilization of wood.

<https://qa.auth.gr/en/class/1/600179883>

### **FLORA AND VEGETATION OF GREECE [612E]**

*(Faculty Instructors: E. Eleftheriadou - Professor, K. Theodoropoulos - Professor, S. Panagiotidis - Associate Professor)*

Introduction to Flora, vegetation, abiotic factors that influence Greek terrestrial ecosystems. Contemporary Flora, endemism, rare and endangered plant species and their protection. Phytogeographic divisions in Greece. Vegetation zones and extrazonal problems of evolution and classification. Azonal vegetation in particular ecosystems. Flowers and vegetation of Natural Parks, aesthetic forests, natural monuments, wetlands.

<https://qa.auth.gr/en/class/1/600179963>

### **INFORMATICS - MULTIMEDIA APPLICATIONS [422E]**

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Introduction. Definitions. Structure of a multimedia application. Multimedia infrastructure. Phases for the development and assessment of a multimedia application. Picture (capture, types, formatting, storage). Sound (introduction, process). Animation (introduction, 3D modelling, movement), Video (introduction, adjustment, process). Selection and use of software for the development of a multimedia application in forestry (basic features, categories, applications types, programming).

### **WETLANDS ECOLOGY [207E]**

*(Faculty Instructors: D. Bakaloudis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

Ecology and management of wetlands with emphasis on river and lake avian fauna.

<https://qa.auth.gr/en/class/1/600179890>

## **7<sup>th</sup> semester**

### **HARVESTING OF NON WOOD FOREST PRODUCTS [114E]**

*(Not to be lectured)*

Planning and organization of forest products harvesting, logistics and transportation in the Greek forests (according to tree species, forest structure and local conditions).

### **TREES & SHRUBS OF PARKS AND TREE-ROWS [611E]**

*(Faculty Instructors: E. Eleftheriadou – Professor, K. Theodoropoulos - Professor)*

Aesthetic morphological characteristics and biological demands of trees and shrubs of parks and tree-rows.

<https://qa.auth.gr/en/class/1/600175794>

### **SOIL CLASSIFICATION AND FOREST SOIL MAPPING [509E]**

*(Faculty Instructor: A. Papaioannou - Assistant Professor)*

Factors affecting productivity of forest sites, assessment methods. Forest site productivity mapping and construction of forest site quality maps. The general chapters of the course are the following: • Introduction (forestry practice and characteristics of a forest land) • Classifications and description systems • Mapping stages and degree of detail • Planning and organizing mappings • Outdoor activities • Estimates of the suitability of land for various uses and its physical productivity • Final reports and maps

<https://qa.auth.gr/en/class/1/600175775>

### **BIOLOGICAL CONTROL OF DISEASES AND INSECTS [603E]**

*(Not to be lectured)*

Definition of biological Beneficial organisms: a)Predators b) parasites pathogens c)microbes (microbial control). Methods of application biological control: promotion of natural enemies, introduction of new species, periodic release of enemies. Methods of biological control, pheromones.



### **PUBLIC RELATIONS [404E]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

Meaning and content of public relations. Principles of public relations. Aims and prerequisites of public relations application. Public relations means. Communication techniques. Public relations planning. Practical applications of public relations and results.

<https://qa.auth.gr/en/class/1/600175753>

### **RANGE LANDSCAPE ECOLOGY [217E]**

*(Faculty Instructors: E. Abraham - Professor, M. Karatassiou - Associate Professor, Instructors from Other Categories: A. Sidiropoulou - S.L.T.P., D. Chouvardas - S.L.T.P.)*

Range landscape analysis and function. Definitions of ecotopes and technotopes. Relationships between heterogeneity and ecological instability. Impacts of pastoral systems (grazing and feeding) on range landscape structure and formation. Cultural components of the landscape and their relations with natural and biological characteristics. Range landscape dynamic management.

<https://qa.auth.gr/en/class/1/600175722>

### **CONSERVATION OF FOREST GENETIC RESOURCES [604E]**

*(Faculty Instructors: A. Skaltsogiannis - Professor, F. Aravanopoulos - Professor, E. Barbas - Associate Professor, P. Alizoti - Associate Professor, M. Tsaktsira P. - Associate Professor, P. Tsoulpha - Associate Professor)*

Threats for genetic variation, Strategies for the conservation of genetic variation, In situ conservation of forest genetic resources, Ex situ conservation of forest genetic resources, Size - number - location of populations selected for gene conservation, Impact of forest management and tree breeding on genetic diversity, Collection, control and storing of forest genetic material, Criteria and indicators for the conservation of forest genetic resources, International Programs and Activities for the Conservation of forest genetic resources

<https://qa.auth.gr/en/class/1/600175786>

### **WOOD PHYSICS [113E]**

*(Not to be lectured)*

Physics of fluids (equilibrium, fluid mechanics), molecular phenomena in liquid and gaseous solutions. Porous materials and capillary action. Physical properties, behaviour and dimensional changes of wood. Relations between wood and fluids (liquids, gases). Fluid flow into wood. Influence of tree species, wood structure and physical factors (temperature, pressure, humidity, nature and category of liquids and gases, etc.), on the movement (entrance, exit) and retention of liquids and gases in wood structure. Types and mechanisms of fluid flow in wood. Importance of the above mentioned factors in wood use and technological wood processing (drying, streaming, impregnation, gluing, pulping, chemical processing, etc.). Wood deterioration and its effects on wood physics.

### **EUROPEAN AND TROPICAL TIMBERS [115E]**

*(Faculty Instructor: P. Gkanatsas - Professor, P. Tsioras - Assistant Professor)*

Relations between structure, properties and uses of various timbers. Structure, properties, behaviour and utilization potential of the most important Greek, European and tropical woods. Relations between wood special characteristics and suitability for particular uses.

<https://qa.auth.gr/en/class/1/600175703>

### ENVIRONMENTAL REMOTE SENSING [517E]

---

*(Faculty Instructor: I. Gitas - Professor)*

Characteristics of the electromagnetic spectrum (electromagnetic radiation models, radiation path, atmospheric effects, interaction with the objects of the earth's surface). Historical development of Remote Sensing (aerial photography, satellite imagery, sensor types). Image display (hardware, formats, software, spatial-temporal-spectral-radiometric resolution, metadata). Image correction (systematic errors, geometric - atmospheric - topographic corrections). Image enhancement (filters, texture analysis) and mosaicking. Image analysis and thematic information extraction (creation of thematic maps). Vegetation indices, image classification (supervised, non-supervised) and thematic map accuracy assessment. The practical work is done using the ERDAS Imagine software.

<https://qa.auth.gr/en/class/1/600175779>

### ENVIRONMENTAL GEOGRAPHIC INFORMATION SYSTEMS [519E]

---

*(Faculty Instructor: I. Gitas - Professor)*

Theory: Introductory concepts. Collection and import of spatial data in a GIS. Geographic coordinate system and map projections. Projection systems. Types of spatial data in a GIS. Geographical Databases. Working with tables. Spatial Analysis. On-line GIS (Web GIS) and Cloud GIS.

Practical Classes: Familiarisation with ArcGIS. Familiarisation with the ArcGIS Desktop environment. Coordinate systems and Projection Systems. Georeferencing and digitization in ArcGIS. Creation, processing and analysis of spatial and descriptive data. Vector and raster analysis. Creation of maps.

<https://qa.auth.gr/en/class/1/600175780>

## 8<sup>th</sup> semester

### FOREST MACHINE ENGINEERING [104E]

---

*(Not to be lectured)*

Tools and machines for harvesting forest products and for other forest operations.

### WOOD PRESERVATION AND IMPROVEMENT [103E]

---

*(Not to be lectured)*

Natural durability and degradation factors of wood and wood products. Wood and fluids relationships (in drying, steaming, impregnation and improvement processing). Protective impregnation (categories-types of chemicals, equipment, methods, selection criteria, technological conditions, facilities, rules of operation of impregnation industrial units, certification of impregnated timber, estimation of preservation method efficacy etc.). Fire protection of wood and ways of improving its dimensional stability. Evolution of preservation methods and impregnating substances.

<https://qa.auth.gr/en/class/1/600179875>

### RANGELAND MANAGEMENT SYSTEMS [210E]

---

*(Faculty Instructor: M. Yiakoulaki – Professor, Instructor from Other Categories: K. Mantzanas - S.L.T.P.)*

Animal husbandry and rangelands. Factors affecting rangeland management. Planing of rangeland development. Grazing livestock farming systems. Integrated use of rangelands by grazing livestock and use of alternative forage resources.

<https://qa.auth.gr/en/class/1/600179891>

### WOOD CHEMICAL TECHNOLOGY [108E]

---

*(Not to be lectured)*

Methods of wood chemical technology. Products of chemical technology (pulp, paper, cellulose, cellulose derivatives, synthetic fibres, films, varnishes, etc., derivatives from semi-celluloses, lignin and extractives, sugars, resins, energy, etc.). Production technology of chemical products (raw material, machines, production stages, technological conditions). Properties and uses.

### PESTICIDES [606E]

---

*(Not to be lectured)*

Fundamental terms of toxicology. Categories of pesticides (insecticides, acaricides, nematocides, fungicides, herbicides, etc.). Ways of action. Application methods and technics. Effects and consequences of pesticide application. Role of pesticides in forestry.

### FORESTRY EXTENSIONS [402E]

---

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

Introductory concepts. Historic development of forest education. Presumptions for the success of forestry extension. Administration of forestry extension. Development of forestry extension program. Communication and applications of forestry improvements. Trade unions and cooperatives. Forestry extension in community development.

<https://qa.auth.gr/en/class/1/600179917>

### FOREST EVALUATION AND ACCOUNTING [406E]

---

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: M. Makra - S.L.T.P.)*

Fundamental concepts of forest evaluation and interactions. Value of forest land. Value of forest stands. Losses and their evaluation. Accounts and balance sheets.

<https://qa.auth.gr/en/class/1/600179925>

### FOREST LAND MAPPING [506E]

---

*(Faculty Instructors: I. Gitas - Professor, N. Nanos - Associate Professor)*

Introductory concepts. Projection systems. General and technical map design issues. Mapping of point, surface, volumetric and morphological elements. Thematic Cartography. Automated cartography. Exporting quantitative data from maps. Accuracy of mapping. Mapping methods. Classification systems. Mapping of vegetation.

<https://qa.auth.gr/en/class/1/600179941>

### URBAN SILVICULTURE [608E]

---

*(Faculty Instructors: T. Zagkas – Professor, T. Tsitsoni - Professor)*

Historic analysis, ecological and environmental problems of inhabited areas. Beneficial impacts of the urban green. Living conditions of urban vegetation. Physiological damages from environmental factors. Criteria for tree selection. Measures for the improvement of tree growth conditions in urban areas. Valuation of various tree and shrub species.

<https://qa.auth.gr/en/class/1/600179959>

### **GENETICS OF FOREST SPECIES TOLERANCE TO ENVIRONMENTAL POLLUTION [605E]**

*(Faculty Instructors: F. Aravanopoulos - Professor, A. Skaltsogiannis - Professor, P. Alizoti - Associate Professor, E. Barbas - Associate Professor, M. Tsaktsira P. - Associate Professor, P. Tsoulpha - Associate Professor)*

Effects of environmental pollution on plants and plant populations. Plant behaviour in environmental pollution conditions. Variation in resistance (tolerance) of forest species in pollution. Estimation methods of forest species genetic variation towards resistance (tolerance) to environmental pollution. Environmental pollution as an evolution factor. Evaluation and exploitation methods of genetic variation, genetic improvement, development of tolerant varieties and clones.

<https://qa.auth.gr/en/class/1/600179955>

### **GENETIC IMPROVEMENT OF FAST GROWING FOREST SPECIES & ORNAMENTAL TREES [505E]**

*(Faculty Instructors: A. Skaltsogiannis - Professor, F. Aravanopoulos - Professor, E. Barbas - Associate Professor, P. Alizoti - Associate Professor, M. Tsaktsira P. - Associate Professor, P. Tsoulpha - Associate Professor)*

Terminology. Fast growing species potentialities and limitations. Methods of genetic improvement and propagation especially applicable to fast growing species (Populus, Platanus, Salix, Alnus, Robinia, etc.). Importance of fast growing species for Forest Tree Breeding. Stand establishment, importance of spacing and competition. Breeding methods, maximization of biomass production. Biomass for energy plantations, rotation periods, regeneration. Ornamental plants: considerations related to aesthetics, noise abatement, visual screening, microclimate etc. Breeding objectives and aims. Selection of trees for urban landscapes, street planting and Christmas trees.

<https://qa.auth.gr/en/class/1/600179940>

### **ENVIRONMENTAL POLICY AND EDUCATION [410E]**

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

Environment and society, economy and environment, land use planning and organization, economic evaluation of environmental impacts, economic policy and environmental conservation, environmental education, environmental law, developmental and environmental policy, policy and strategy of environmental conservation as a national and international problem.

<https://qa.auth.gr/en/class/1/600179929>

### **BIOLOGY OF FRESHWATER FISHERIES [216E]**

*(Faculty Instructor: A. Kokkinakis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

General information concerning the biology and ecology of the main fish species of inland waters of Greece. Detailed description for each fish species of its habitats that lives in our country, its diet, reproduction and the existing fishery management of their populations. General description of the existing fisheries management of fish populations of inland waters and the risks facing by endangered species.

<https://qa.auth.gr/en/class/1/600179897>

### **WOOD PRODUCTS-STANDARDIZATION [105E]**

*(Faculty Instructors: have not been defined)*

Principles of standardization, definitions, characteristics, properties, quality and dimensions of wood and wood products. Standards. Quality control methods and testing of wood and wood products.

<https://qa.auth.gr/en/class/1/600179876>

### TECHNOLOGY OF GLUED WOOD PRODUCTS [106E]

---

*(Faculty Instructors: have not been defined)*

Composite wood products (plywood, laminated wood, particle board, fibreboard and other composite products). Production technology of composite products (raw material, machines, stages of production, technological conditions). Improvement processing, properties and uses of wood products.

<https://qa.auth.gr/en/class/1/600179877>

### AROMATIC, PHARMACEUTICAL AND BEE-FORAGING PLANTS [515E]

---

*(Faculty Instructors: K. Theodoropoulos - Professor, E. Eleftheriadou - Professor, S. Panagiotidis - Associate Professor)*

Systematics of Aromatic, Medicinal and Apicultural plants of the greek Flora. Morphological traits (morphology, physiology) and geobotanical characteristics (ecology, chorology, historical use) of Aromatic, Medicinal and Apicultural plants. Practical use and economic value of Aromatic, Medicinal and Apicultural plants.

<https://qa.auth.gr/en/class/1/600179946>

### ENVIRONMENTAL EDUCATION [420E]

---

*(Faculty Instructor: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

Education and environment. Environmental movements. Evolution of environmental education. Objectives, aims and goals, principles and didactic characteristics of environmental education. Methodology and organisation of environmental education projects. Evaluation of environmental education projects. Interdisciplinary approach of environmental issues. Presentation of environmental education projects and evaluation of activities in environmental education. Centres of environmental education.

<https://qa.auth.gr/en/class/1/600179935>

### ENTREPRENEURSHIP AND INNOVATION [008E]

---

*(Not to be lectured)*

Introduction to entrepreneurship and phases of the entrepreneurship process. Practical issues relating to the start up, running and management of a Small and Medium Enterprise. Working sheets, practical exercises and implementations. Case study analysis. Site visits to Small and Medium Enterprises.

<https://qa.auth.gr/en/class/1/600179811>

## 9<sup>th</sup> semester

### ENVIRONMENTAL CHEMISTRY [607E]

---

*(Faculty Instructor: D. Lampropoulou - Assistant Professor, Instructor from Other Categories: E. Evgenidou - S.L.T.P.)*

Sources and causes of environmental pollution. Water pollution from urban industrial waters. Air and soil pollution from chemical substances.

<https://qa.auth.gr/en/class/1/600175790>



### **WOOD PRODUCTS TECHNOLOGY & WOOD MECHANICAL PROCESSING [101E]**

---

*(Faculty Instructors: have not been defined)*

Principles of mechanical processing. Wood products from mechanical processing (saw wood, veneers, parquets, furniture, boxes, palettes, pivots, etc.). Production technology raw material, machines, production stages, technological conditions). Improvement processes, properties and product use. Bending and mechanical fastening of wood.

<https://qa.auth.gr/en/class/1/600175694>

### **RANGELANDS TECHNIQUES [205E]**

---

*(Faculty Instructors: M. Yiakoulaki - Professor, Z. Parissi - Associate Professor, Instructor from Other Categories: P. Sklavou - S.L.T.P.)*

Methods for rangeland biomass measurement (above and below ground). Methods for measuring and assessing utilization, carrying capacity, range conditions and trends in rangelands.

<https://qa.auth.gr/en/class/1/600175712>

### **RANGE ANIMAL NUTRITION [212E]**

---

*(Faculty Instructors: M. Yiakoulaki - Professor, Z. Parissi - Associate Professor, Instructor from Other Categories: K. Mantzanas - S.L.T.P.)*

Relations of range vegetation with domestic and wild ungulates. Nutritive value of range forage and its importance for animal production. Spatial and temporal grazing organization for optimization of multipurpose production.

<https://qa.auth.gr/en/class/1/600175717>

### **SNOW, SKIING CENTRES [313E]**

---

*(Faculty Instructor: D. Stathis – Professor)*

Snow meteorology, Snow Properties. Snow - underground waters and run-offs, snowmelt and floods. Snow-slides, snow-sloping hazards and deterrence. Snow-settling systems, forest and avalanches. Skiing center, Artificial Snow Generation. Snow accidents. methods of correcting avalanches.

<https://qa.auth.gr/en/class/1/600175743>

### **DAM CONSTRUCTION [311E]**

---

*(Faculty Instructor: M. Sapountzis D. - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Forces, loading and stability of dam construction, heavy weight constructions, construction beams, mixed weight constructions, beams, curves and soil constructions, protection works of dam constructions). Pc design of a check dam.

<https://qa.auth.gr/en/class/1/600175741>

### **FINANCING IN FORESTRY [401E]**

---

*(Faculty Instructors: S. Tampakis - Associate Professor, Instructor from Other Categories: M. Makra - S.L.T.P.)*

Concepts, targets, sources and financing criteria in forestry. Financing organization. Historical review of financing in Greek forestry.

<https://qa.auth.gr/en/class/1/600175747>

### **ORGANIZATION & ADMINISTRATION OF FOREST INDUSTRIES [403E]**

*(Faculty Instructors: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

General principles of organization and administration, operations of forest industries. Administrative organization of forest industries and their structure. Production planning of forests industries in regional and national level. Problems of forest industries. Total Quality Management, Corporate Social Responsibility, ISO Certification, Site Location etc.

<https://qa.auth.gr/en/class/1/600175751>

### **ECONOMICS OF FOREST INDUSTRIES [107E]**

*(Not to be lectured)*

Introduction, basic concepts. Distinction of enterprises based on various classification criteria. Types of forest industries. Operational research applications in forest industries (linear programming, methodologies of stock control, transportation problems). Location selections for forest industries. Economic criteria of factory planning. Stock and raw material planning, control. Production and labour planning. Production costs, analysis of economic results. Improvement and optimization measures. Feasibility studies. Historical development of forest industries in Greece.

<https://qa.auth.gr/en/class/1/600179767>

### **SPECIAL APPLIED SILVICULTURE [511E]**

*(Faculty Instructors: T. Tsitsoni - Professor, P. Gkanatsas - Professor)*

Silvicultural-biological properties and silvicultural treatment of various forest species. Import and cultivation of exotic and fast growing species.

<https://qa.auth.gr/en/class/1/600175776>

### **POLLUTION OF THE NATURAL ENVIRONMENT [609E]**

*(Faculty Instructor: A. Dimitrakopoulos - Professor)*

Pollution of forests and natural ecosystems. The problem of European forest decliner. Injuries, control.

<https://qa.auth.gr/en/class/1/600175792>

### **MARKETING OF FOREST PRODUCTS [109E]**

*(Not to be lectured)*

Forest products market and its environment. Study and analysis of forest products, markets of primary and manufacture sector, description and evaluation of market and marketing research methodology. The Greek and international market of forest products.

<https://qa.auth.gr/en/class/1/600179768>

### **WOOD ADHESION AND ADHESIVES [117E]**

*(Faculty Instructors: have not been defined)*

Theories, Application Techniques and Adhesion Mechanisms. Adhesion factors. Characteristics, properties, uses and combinations of natural and synthetic wood adhesives. Quality control of adhesives and strength of adhesion bonds with the substrate of wood. Reaction of wood components with adhesives. Release of formaldehyde from adhesives and laminated products. Safety rules, storage, rational use of adhesives. Trend of adhesives evolution - Ecological adhesives.

<https://qa.auth.gr/en/class/1/600175705>

### **DEVELOPMENT POLICY & EUROPEAN UNION [411E]**

*(Faculty Instructor: Z. Andreopoulou – Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

European Union and its role In Development policy. organization of european Union. European funding and projects European Policy on forests, natural environment, regional development, digital innovation, internet services, tourism, local development, water, pollution, energy, Renewable energy, etc.

<https://qa.auth.gr/en/class/1/600175762>

### **COMPUTER NETWORKS IN FORESTRY [415E]**

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Introduction to computer networks. Network structure and architecture. Transmission means and terminal handling. Network protocols. Data zipping techniques. Modern computer networks (local-wide). Local networks, servers in local networks, network software. Wire structure and network management.

<https://qa.auth.gr/en/class/1/600175765>

### **DIDACTIC OF ENVIRONMENTAL EDUCATION [413E]**

*(Faculty Instructors: S. Tampakis - Associate Professor, Instructor from Other Categories: E. Skoufa - S.L.T.P.)*

The didactic process. Historic evolution of dominant methodological approaches in environmental education. Conceptual framework, objectives, aims, goals and methodological tools. Didactic principles. Strategies, design and organisation of didactic processes. Methodological approaches in the didactic of natural environment. Evaluation, didactic models and techniques. Holistic approach of the natural environment.

<https://qa.auth.gr/en/class/1/600175764>

## **10<sup>th</sup> semester**

### **PHYTO-TECHNIQUES [310E]**

*(Faculty Instructors: M. Sapountzis D. - Associate Professor)*

Phyto-technical arrangements (biological engineering) at the lower parts of natural streams and watersheds. Soil stabilization, alluviums, seaside, banks, dunes.

<https://qa.auth.gr/en/class/1/600179908>

### **FOREST INDUSTRIES [110E]**

*(Faculty Instructors: have not been defined)*

Principles of establishment and operation of forest industries. Planning of forest industries (location, size, selection of technology and machines, production rates). Organization of operations. Production systems and control. Machine performance and maintenance. Forest industries in Greece.

<https://qa.auth.gr/en/class/1/600179880>

### **FISHERIES CULTURE [202E]**

*(Faculty Instructor: A. Kokkinakis - Professor, Instructor from Other Categories: N. Paralykidis - S.L.T.P.)*

Fish farming in general. Criteria for the selection of suitable species for cultivation. Characteristics of appropriate water bodies for aquaculture. Fish farming production systems. Description of the extensive aquaculture (in lakes and rivers), semi-extensive and semi-intensive aquaculture types (lagoons & coastal lakes). Technologies of intensive aquaculture types.

The international status of aquaculture and in Greece. Strength and weak point's analysis of aquaculture in Greece. Optimization of the existing fish farming technologies. Rational management of inland water fish culture. Optimization of the impacts of aquaculture in environment.

Trout farming: General information about the type of cultivation, Selection of the suitable aquaculture technologies. Installations and suitable places for trout farming. Appropriate water sources, quantity and quality of water, necessary technological facilities. Trout reproduction. Nutrition and diet and description of the most common diseases.

Carp farming: General information on carps and carp culture. Selection of the suitable location for the creation of a carp farm. The appropriate quality and quantity of required water. Types of reservoirs and their structure. Types of fish breeding (natural, semi-controlled, controlled, and artificial reproduction), fish cultivation, fish diet and nutrition, calculation of fish-loading ability. Description of the most common diseases of carps.

<https://qa.auth.gr/en/class/1/600179886>

### **REGIONAL DEVELOPMENT [408E]**

*(Faculty Instructor: Z. Andreopoulou - Professor)*

Basic knowledge of Regional Development, Regional Development Planning and Regional Programming, Regional Development Policy, Cohesion Policy, development axes, development strategy and policies. Connection between sustainable development and natural resources. Cooperatives. Internet and local development, internet and eco-tourism.

<https://qa.auth.gr/en/class/1/600187531>

### **FOREST MANAGEMENT PLAN [508E]**

*(Faculty Instructor: N. Nanos - Associate Professor, I. Gitas - Professor)*

Purpose, form, principles, technical specifications and parts of a management plan. Overview, current forest situation. Analysis and control of the results of the previous management so far. Analysis of the current situation and its development. Evaluation of results and their analysis for further planning. Design. Management plan annexes. Audit, update, review and implement a management plan. In the course, the participating students will be trained in the following tasks / phases of writing a management study. Phase of forest division. Forest inventory phase. Phase of the special description of the forest. Design phase. Study writing. Case of application: Thessaloniki Suburban Forest or Taxiarchis University Forest or Pertouli University Forest.

<https://qa.auth.gr/en/class/1/600179942>

### **TORRENT, RIVER AND LAKE ENVIRONMENTAL MANAGEMENT [312E]**

*(Faculty Instructors: M. Sapountzis D. - Associate Professor, D. Myronidis - Associate Professor, Instructor from Other Categories: H. Ganatsios - S.L.T.P.)*

Morphology of lake river basins. Principles, systems of environmental arrangement of torrents, rivers, lakes. Arrangement works adapted to natural environment. Special works of environmental stream corrections in national parks, virgin and aesthetic forests and natural museums. Formation of artificial

beds and lake basins (depositories) by applying environmental criteria. Stream correction with specific requirements (fish culture, boat racing, swimming, aesthetic improvement, etc.)

<https://qa.auth.gr/en/class/1/600179910>

---

### COMPARATIVE FOREST LEGISLATION [414E]

(Not to be lectured)

Legislation of forests and forest lands in the EU. The legislative frameworks of forests and forest lands in other countries. Legislative network for environmental protection. Legislation on natural resources and their exploitation in Europe and other countries.

---

### ECONOMICS OF FOREST ENTERPRISES [412E]

(Not to be lectured)

Introductory concepts. Criteria of classification and categories of forest enterprises. The organization of production factors of a forest enterprise. Management planning and efficiency of a forest enterprise. Methodology of economic analysis of a forest enterprise.

---

### COMPARATIVE FOREST LEGISLATION [513E]

(Not to be lectured)

Concept and aims. General review of the major management methods. Peculiarities of Greek forests. Special management of wood production forests, multiple purpose forests and other forest forms, or forested areas. Modification of management plans.

---

### APPLIED HYDRAULICS AND HYDRAULIC WORKS (HYDRONOMICS) [307E]

(Faculty Instructors: M. Sapountzis D. - Associate Professor, D. Myronidis - Associate Professor)

Hydrometric, water supplies, sewerage, depositories, hydraulic machines, irrigation pumps and drainage networks, flood and hydroelectric projects, biological cleaning, quality water analysis and control, land reclamations, flood works, protection works of nature and environment, biological refinement.

<https://qa.auth.gr/en/class/1/600179906>

---

### IMPROVEMENT OF RANGELAND INFRASTRUCTURE [220E]

(Faculty Instructors: V. Giannoulas - Associate Professor, M. Yiakoulaki - Professor, D. Myronidis - Associate Professor)

- a) Contribution of infrastructure (roads, paths, fencing, watering points, stables etc.) in rational management of rangelands. Means for uniform distribution of grazing. Livestock farms-Meaning-Benefits.
- b) Design road rangeland. Types, locations and functionality shelters, stables and dwelling facilities bstaff. Types and device fences. Types and spatial distribution projects to collect water and watering the animals.
- c) Desing and construction of engineering infrastructure rangeland.
- d) Organise technical interventions and maintain the acological balance of rangeland ecosystems and assessment of environmental impacts from the construction of engineering works.

<https://qa.auth.gr/en/class/1/600179900>



### **METHODS AND MEANS FOR FOREST FIRE SUPPRESSION [610E]**

---

*(Faculty Instructor: A. Dimitrakopoulos - Professor)*

Tactics and methods of aerial and ground means for forest fire suppression. Use of portable tools, fire-fighting vehicles, airplanes and helicopters. Methods of arrangement and combination of fire-fighting forces with respect to their number and type, according to fire environment (vegetation, topography, meteorology) and fire behaviour. Organization forest fire-fighting institutions according to modern models (ICS-Incident Command System). Methodology of forest fire prevention plans.

<https://qa.auth.gr/en/class/1/600179961>

### **STUDENTS INTERSHIP OF A.U.TH [085E]**

---

*(Coordinator: M. Sapountzis D. - Associate Professor)*

The two months practice (with full employment) of students is carried out in agencies of technical environmental research, in private forest enterprises, nurseries, wood and furniture industries, forest cooperatives, forest services, local authorities

<https://qa.auth.gr/en/class/1/600179872>

## CHAPTER 5

### STUDY ORGANIZATION - STUDENT'S PRACTICE

#### European credit transfer and accumulation system – ECTS

The European Credit Transfer and Accumulation System (ECTS) is a key means of matching and comparing academic credits (ie the breadth and depth of knowledge gained, which is based on specific learning outcomes and workload required for achievement) for higher education institutions in all Universities of the European Union and in cooperating countries. It aims to facilitate the planning, delivery, evaluation, recognition and validation of Degrees and learning modules, as well as the mobility of students between collaborating Universities, Faculties and Departments.

A full academic year corresponds to 60 credits (ECTS), while a full academic semester to 30 ECTS (1 ECTS = 25-30 hours), equivalent to 1500-1800 hours of workload regardless of the level of study. Each course is assigned the number of required ECTS ( $\geq 2$ ) which expresses the workload required by the student to complete the course, laboratory, tutoring, internship, etc. The total of the compulsory credits (ECTS) for the 5 years of study in the School of Forestry and Natural Environment and the internship of the students is 309 or 311. Students are offered practical training through: (i) internships taking place in the University Forests in the 4th, 6th and 8th semester, (ii) internship at the Forestry Offices and other Forest Services (8<sup>th</sup> semester) and (iii) optional internship in private forest companies such as wood or furniture industry, forest nurseries, forest and environmental consulting companies, forest cooperatives, local administration offices, etc.

#### Compulsory courses

These are courses that are considered absolutely necessary for the scientific training of a Forest scientist and therefore the student is obliged to attend and be successfully examined in order to graduate from the school of Forestry and Natural Environment.

#### Elective courses

These are courses from which the student is obliged to choose twelve (12) to complete the necessary credits to obtain the degree. The elective courses are divided into general and specialization elective courses coming from six different specializations (or studies directions) providing a greater deepening in a certain area of knowledge of Forestry (note tha the first digit of the studies-direction code refers to the respective direction and the next two to

course serial number, see Semester Tables). The student may attend more than twelve elective courses, but their grade will not be taken into account in shaping the degree.

### Course attendance

The compulsory and the optional courses are distributed in 10 semesters, in order to advice students on the progressive order of their attendance.

At the beginning of every semester the secretariat of the faculty announces particular dates so the students can register for the courses they are attending for the semester so they can take the exams for each class. Students can register online on the website of the secretariat <http://web.itc.auth.gr> (electronical services for students) for the courses registration. It is a requirement for the participation in the examination process for all the provided courses the on-time electronic registration in the running semester. After the definite date of registration it is not possible to register electronically for the semester. It is pointed out that for each course there are two examination periods: the first period is set immediately after the end of the semester in which the course is taught (winter or spring) and the second is set in September. An exam grade in an undeclared course is not accepted.

The **maximu number of courses** a student can elect is:

- 1<sup>st</sup> semester: 10 courses of winter semesters
- 2<sup>nd</sup> semester: 10 courses of spring semesters
- 3<sup>rd</sup> semester: 10 courses of winter semesters
- 4<sup>th</sup> semester: 10 courses of spring semesters
- 5<sup>th</sup> semester: 11 courses of winter semesters
- 6<sup>th</sup> semester: 11 courses of spring semesters
- 7<sup>th</sup> semester: 11 courses of winter semesters
- 8<sup>th</sup> semester: 11 courses of spring semesters
- 9<sup>th</sup> semester: no limit of compulsory courses and 10 elective courses of winter semesters
- 10<sup>th</sup> semester: no limit of compulsory courses and 10 elective courses of spring semesters.

The students of 11<sup>th</sup> semester and more can elect all the compulsory courses, 10 elective courses of winter semesters and 10 elective courses of spring semesters.

With respect to the course instruction, there are exercises (in the labs or outdoor)

Students participating in the European Erasmus Program, which concerns their transfer to study at partner Universities abroad with the aim of transferring credits and their recognition by the our University, are considered students of the host University and not of AUTH. For this reason, they are not entitled to submit a course registration to our Department for the

semester in which they are moving, and therefore they are not entitled to participate in the examinations conducted for the courses taught during their semester, both at the end of the semester and during the September re-examination.





The selection and distribution of course books is made through the integral electronic service of management of books 'EUDOXOS' <http://eudoxus.gr>. Students not registering on-time are not allowed for free book delivering. It is also underlined that only the students registering to the respective courses during the running semester have the right to free-of-charge book distribution. The students can not take more than 8 books per semester. No books free-of-charge are distributed to students of the n+2 semester or higher (where n=the regular years of study in the School). Books can also be delivered to students of Forestry that follows the course attendance for second degree.


Students have to register for the studies-direction they wish to attend. The registration should be made at the beginning of the 3<sup>rd</sup> semester, with every student retaining the right to change their initial selection up until the beginning of the 7<sup>th</sup> semester, and only for once. Out of the total twelve (12) elective courses that a student needs to attend, he/she has to select seven (7) courses from the Direction of his/her choice, while for the remaining 5 courses he can either select from the Direction he/she is registered or from another one or the general lessons.


The Direction that a student wishes to follow is written in the Transcript or, alternatively, following an application form to the Departmental Secretary, students can also be provided with a certificate with the Direction of their choice written on it. Every semester, before the exam period, the students had to evaluate the courses quality and the academic staff in order to improve the quality of the courses. More information is available to the site of MODIP-AUTH <http://qu.guth.gr> (UNIT OF INSURANCE QUALITY).


The distribution of courses into semesters is shown in the table below:

**Table 1.** Organization of studies and obligations to the students for taking his/her degree

Studies	semester									
	1	2	3	4	5	6	7	8	9	10
Courses, labs and exercises	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Registration of Direction			✓							
Practical training									 - 	
Undergraduate Thesis Dissertation							✓	✓		

 University Forests of Taxiarchi (1- 31 of June)

 University Forests of Pertouli-Trikala (1- 31 of August, 1-31 of June)

 Forest Services (1- 31 of August)

## PRACTICAL TRAINING

Practical training is an essential part of the studies program. Student internship takes place in two University Forests (University Forest of Taxiarchis and University Forest of Pertouli) during the 4th, 6th and 8th semester of studies. Also students are offered practical training in the Forest Services of the country during the 8th semester of studies (in the month of August). Only students who have registered to the respective courses of the internship program have the right to internship. Participation in the above practical exercises is considered necessary for the award of the degree of Forester-Environmentalist.

Students are also entitled to do an one or two month internship through national operational programs. Students have the opportunity to attend internships in wood or furniture industries, in private forestry companies, nurseries, technical and environmental consultant offices, forestry cooperatives, local government and other private and public sector enterprises. The internship carried out under this program corresponds to a general elective course.

Practical training of students is done according to the Internal Regulation of Internships ([https://www.for.auth.gr/uploads//Kanonismoi\\_praktikon\\_askiseon.pdf](https://www.for.auth.gr/uploads//Kanonismoi_praktikon_askiseon.pdf), in Greek). Please note that for students enrolled until 2019 the above mentioned regulation applies only according to the following:

### 1. Practical training according to national operational programs

The Internship for the students who were admitted to the Department until 2019 is an elective course with code 085E, corresponds to 3 ECTS, lasts 2 months and takes place in the 10th semester. If the positions are not filled, students of the 8th and 12th semesters are selected in order. The internship is rated 'successful / unsuccessful'.

### 2. Practical training in the Hellenic Forest Service

Students admitted until 2019 are not required to have successfully completed courses in at least 70% of the ECTS in order to be exercised in the Hellenic Forest Service.

### 3. Practical training in the University Forests

For students admitted to the Department until 2019, the following provisions of the Internal Regulations of Internships do not apply, as they concern the study program from 2020 onwards: "In the internship that takes place during the 2nd and during the 3rd year of study, six credits are awarded per year (3 ECTS per semester), while in the internship of the 4th year, a total of five credits are awarded (3 ECTS in the 7th and 2 ECTS in the 8th semester). A total of seventeen credits (17 ECTS) are awarded for the internships in the University Forests".

## UNDERGRADUATE THESIS

Students are obliged to prepare a diploma thesis, based on the instructions and the standard included in the following website (in Greek): <https://www.for.auth.gr/innouncements/instructions-of-writing-diplomatic-thesis>

The student has the right to choose the topic of the diploma thesis during the 7th and 8th semester of studies or later and only from the studies-direction he/she has selected, provided that the supervising faculty member agrees. The work is examined and graded by a three-member committee of faculty members proposed by the supervisor. Each member scores separately and the average is the grade of the dissertation.

In addition, the following applies to the preparation of the Dissertation Thesis:

- It is recommended that faculty members announce the offered thesis topics at the beginning of the academic year, so that students can be facilitated in their choice.
- The number of students in each dissertation should not exceed 2-3 (excluding the Department of Forestry and Hydrology, where the number of students can be up to 4). Although there is the possibility of participation of more than one students in the same diploma thesis (joint diploma thesis), faculty members are advised to elaborate diploma thesis by each student individually, since the degree awarded by the TDF corresponds to the level of Integrated Master.
- There is a public presentation of the dissertation thesis within an exclusive period of ten (10) days from the acceptance of the diploma thesis by the supervisor.

## GRADUATION AVERAGE GRADE

The overall Diploma graduation grade is computed as the weighted average of each course credit to the relevant grade. Grades obtained from the practice at the University Forests and the State Forest Service, are not taken into consideration. To compute the Diploma's graduation average grade, the grade of each course is multiplied by a coefficient, depending on the difficulty of each course and the sum of all partial product of the coefficient of difficulty of all courses are multiplied.

**For students admitted to the School before the academic year 2008-2009 (included) the following statements are valid:**

- for the courses having 2 ECTS the difficulty coefficient is 1.0
- for the courses having 3 and 4 ECTS the difficulty coefficient is 1.5
- courses having more than 5 credits is equal to a difficulty coefficient of 2
- To obtain the degree, a student, must fulfil the following:



- attend all the compulsory (245 credits) and optional (36 or 38 credits) courses and accumulate 281 or 283 ECTS.

**For students admitted to the School before the academic year 2009-2010 the following statements are valid:**

- For every course the difficulty coefficient equals the number of course 's ECTS.
- Dissertation thesis (20 credits) has a coefficient difficulty equal to 16.

Traineeship in the University Forests and Hellenic Forest Service is not taken into consideration in the final Bachelor Degree grade.

Finally, if a student wishes to be awarded with a Bachelor degree in Forestry, he/she has to fulfil the following prerequisites:

- He/she has to attend all compulsory and elective courses.
- He/she has to successfully complete his dissertation.
- He/she has to receive traineeship in the University Forests and Public Forestry Agencies.

Totally for been awarded with a Bachelor degree in Forestry, the student has to fulfil at least the following ECTS:

Compulsory courses ( $n = 56$ courses)	245		245
Elective courses ( $n = 12$ courses)	36	or	38*
Undergraduate thesis	20		20
Traineeship in the University Forests	6		6
Traineeship in Forestry Agencies	2		2
<b>Totally ECTS</b>	<b>309</b>	<b>or</b>	<b>311</b>

\*some elective courses have 4 ECTS

So the total amount of ECTS have to be at least **309** or **311 ECTS**.

The grading scale for the evaluation of student's performance is 0 to 10. The scale of the awarded grades and the bachelor's degree grade is:

Άριστα (Arista) Excellent: 8.50 - 10.00

Λίαν Καλώς (Lian Kalos) Very Good : 6.50 - 8.49

Καλώς (Kalos) Good : 5.00 - 6.49

## ACADEMIC CALENDAR

Academic year begins on September 1st of each year and ends on 31st of August of the following year. Fall Semester courses begin the last week of September and end on January 20th. Spring Semester courses begin on February 15th and end on May 31st.

Exams are carried out from 1<sup>st</sup> to 25<sup>th</sup> of September, from 20<sup>th</sup> to 15<sup>th</sup> of February and from 5<sup>th</sup> to 29<sup>th</sup> of June. The examination of a limited number of courses can be done within a reasonable time, beyond the above deadlines, for serious reasons, approved by the General Assembly of the Faculty.

Summer holidays occur during July and August. During that time there are no Faculties, Departments or Sectors meetings. A decision of the Senate, however, can authorize such meetings.

There are no lessons: a) from Christmas Eve until the day after Epiphany Day, b) from Thursday of Tyrofagou until the day after Clean Monday, c) from Holy Monday to St. Thomas Sunday, d) on the day of general student elections, e) on the day of rectors elections. On holidays, the number of employees in administrative functions may be limited by a decision of the Rectorate.

The University is closed: a) on St. Demetrius Day (October 26). b) during the national celebration of 28th of October, c) on the Polytechnic anniversary (November 17th), d) on the Three Hierarchs Day (January 30th), e) during the national celebration of March 25th, f) on May 1st and g) on the Holy Spirit Day.

Practical exercises during holidays are obligatory for the participants.

## CHAPTER 6

### Building infrastructure - University forests

#### Building infrastructure

The first year of its operation (1917), the Higher Forestry School was housed in the National Polytechnic University of Athens. Since the second year and until 1927 it was housed in an adjacent to the Campus building at the M. Voda Str. and Smyrnis Str. corner in Athens. From 1927 up to 1956 the School was housed at the Central building of the Aristotle University of Thessaloniki. From 1956 onwards it was housed in a wing of the building of the School of Agriculture and Forestry building at the University Campus. Of this building's 3.000 m<sup>2</sup>, the School of Agriculture owns the 2.100 m<sup>2</sup> (70%), and the School of Forestry and Natural Environment 900 m<sup>2</sup> (30%).

In August 1981, the foundations of the five new buildings in the area of the University's Forest Botanical Garden at the Finikas area of east Thessaloniki, presenting a total covering surface of 14.000 m<sup>2</sup> were put. In March 1991, the opening of the new building facilities was celebrated and soon all scientific equipment for the education of the students and the research infrastructure was installed.



*New buildings installation of the Faculty of Forestry and Natural Environmental at Finikas.*

#### University Forests

For the purposes of practical training and research, the Faculty features excellent facilities and installations for teaching, research and accommodation for students and personnel at the two University Forests of:

- Pertouli of Trikala District with an area about 3.300 ha, on the Pindos mountain range, and
- Taxiarchis of Chalkidiki District with an area about 5.800 ha, on Mt. Cholomon.

Mandatory practical training occurs for one month in the summer periods of the 4<sup>th</sup> (in Taxiarchis), 6<sup>th</sup> and 8<sup>th</sup> semester (the latter two in Pertouli).

Also the Faculty owns:

- ✓ A forest botanical garden (Finikas - Thessaloniki)
- ✓ Rangeland garden facilities at the Agricultural Farm of the University of Thessaloniki.
- ✓ Wildlife museum and aquarium (Finikas - Thessaloniki)
- ✓ Experimental plantations (Vasilika - Thessaloniki)
- ✓ Sprout nurseries and other facilities at the Agricultural Farm of the University of Thessaloniki.
- ✓ Greenhouses (Finikas - Thessaloniki)
- ✓ Treegarden (Vasilika - Thessaloniki)
- ✓ Seed production garden in University forest of Taxiarchi
- ✓ Experimental plantations and other land surfaces in other forest areas

Besides, the expanding and the equipment of the building infrastructure proceed to the University Forests of Pertouli and Taxiarchi for the accommodation of the personnel and the students during their practical training in the forest and conducting research.

## GfSA-GFEA

The Faculty of Forestry and Natural Environment having scientific knowledge and academic advancement as a priority, fully supports GfSA-GFEA (Greek Forest Students Association-Greek Forest Environments Association) in its effort to provide Forestry and Environmental Science students with opportunities of engaging in a range of activities.



GfSA-GFEA in cooperation with the International Forestry Student Association (IFSA):

- ✓ Promotes forestry students involvement into worldwide conferences
- ✓ Promotes the collaboration of forestry students with respective universities worldwide
- ✓ Urges and encourages students to gain qualitative education on an international scale

- ✓ Provides comprehensive professional information and training in fields directly related to forestry
- ✓ Assists students to enrich their knowledge on their subject of interest
- ✓ Provides stimulus to cultural research

## SERVICES AND ACTIVITIES IN THE AUTH

### Social Policy Committee A.U.Th.

The Social Policy Committee is an Aristotle University service aiming at facilitating the studies at any given level. For this reason it has developed particular actions related to information, counselling and volunteering.

One of its actions is the Center for Counseling and Psychological Support (C.C.PSV.S.) in which all members of university community can apply to tackle problems related to studies, anxiety, sexual issues, family issues and general issues related to their psychology (tel. 2310-99.2643).

Another useful service is the telephone helpline on student issues. Students can call 2310-99.1376 and updated for meetings, conferences, courses or exams, assistance, university activities etc. The service can be done via e-mail (fititikiline@ad.auth.gr).

One of the Social Policy Committee activities is blood donation and the creation of the Blood Bank of A.U.Th. Since its inception in November 2001 until today, it meet the needs of both university members and their relatives, and the number of donors is increasing.

Social Policy Committee has developed a network of volunteers who offer their services to People with Special Needs, foreign students and students with health problems.

For further information please contact: Social Policy Committee: 2310-995360/ 995386 E-mail:

- ipaspala@phed.auth.gr (volunteering, phone line)
- adourou@ad.auth.gr (P.w.S.N., C.C.PSY.S.)
- kouzelis@ad.auth.gr (foreign students, Greek sign language interpretation)
- xgsamarar@ad.auth.gr (blood donation, phone line)

## Employment and Career Structure (ECS)

The Employment and Career Structure (ECS) of Aristotle University of Thessaloniki is a newly, innovative and structured in the frame of operational project 'Education for lifelong learning and co-financed by European Union( European Social Fund) with main task to coordinate the actions and services of the Career Service Office, the Internship Office and the Unit of Innovation & Entrepreneurship. The ultimate goal of ECS is to efficiently interweave education with employment. Benefits:

- ECS provides students and alumni with info and guidance concerning career opportunities.
- ECS supplies employers with qualified personnel enhancing competitiveness and productivity.
- The ECS of Aristotle University of Thessaloniki has as main task to coordinate the actions and services of the Career Service Office, the Internship Office and the Unit of Innovation & Entrepreneurship. The ultimate goal of ECS is to efficiently interweave education with employment.

## Observation of Students in Sensitive Social Groups

The main target of the Observation of Students in Sensitive Social Groups is to record the problems have vulnerable groups of students and concentrate information about the support services, initiatives and actions of AUTH, as well as, the opinion the students have for these services so to suggest good practices facilitate them in access to learning during their studies.

According to students with disabilities and special educational needs, foreign and multicultural, minorities or repatriations LGBT, students confront intimidation or annoyance in the University or they have special economic difficulties and anyone group of students during their education face some inhibitory reason for the progress of their study.

The observation does not support students individually but has advisory and supervisory role.

The students can address individually to the Advisor of support for accessing to studies, who interposes between them, the academic and administrative staff of the Faculty and the Services of the University that defend equal abilities for access to their studies.

The students can help the observation to its action, can complete the form in the site <http://acobservatory.web.auth.gr> The participation is anonymous.



## APPENDIX

### Past Chairmen and Deputy - Chairmen of the School/Faculty of Forestry and Natural Environment

Time Period	Chairman	Deputy Chairman
1982-84	Spyridon Dafis	-
1984-86	Nikolaos Papamichos	Spyridon Dafis
1986-88	Spyridon Dafis	-
1987-89	Spyridon Dafis	Nikolaos Athanasiadis
1989-91	Georgios Stergiadis	Anastasios Papastavrou
1991-93	Georgios Stergiadis	Anastasios Papastavrou
1993-95	Nikolaos Athanasiadis	Konstantinos Panetsos
1995-97	Dimitrios Kotoulas	Nikolaos Papageorgiou
1997-99	Dimitrios Kotoulas	Nikolaos Papageorgiou
1999-01	Nikolaos Papageorgiou	Anastasios Nastis
2001-03	Anastasios Papastavrou	Anastasios Nastis
2003-05	Anastasios Papastavrou	Panagiotis Stefanidis
2005-07	Anastasios Nastis	Panagiotis Stefanidis
2007-09	Panagiotis Stefanidis	Michael Karteris
2009-11	Panagiotis Stefanidis	Michael Karteris
2011-13	Panagiotis Stefanidis	Christos Vlachos
2013-15	Christos Vlachos	Philippos Aravanopoulos
2015-17	Theocharis Zagas	Evangelos Karagiannis
2017-20	Theocharis Zagas	Evangelos Karagiannis
2020-22	Thekla Tsitsoni	Nikolaos Nanos

## Past Presidents and Vice - Presidents of the Fund of University Forest Administration

Time Period	President	Vice President
1/1/1983-16/5/1986	Spyridon Dafis	Konstantinos Asteris
16/5/1986-9/3/1987	Spyridon Dafis	-
9/3/1987-15/9/1989	Spyridon Dafis	Nikolaos Athanasiadis
15/9/1989-3/7/1991	Georgios Stergiadis	Anastasios Papastavrou
3/7/1991-12/9/1994	Georgios Stergiadis	Anastasios Papastavrou
12/9/1994-23/6/1997	Anastasios Papastavrou	Dimitra Kontogeorga-Theoharopoulou
23/6/1997-18/2/2000	Anastasios Papastavrou	Nikolaos Papageorgiou
18/2/2000-7/3/2003	Anastasios Papastavrou	Konstantinos Tsiouvaras
7/3/2003-22/4/2005	Konstantinos Tsiouvaras	Konstantinos Matis
22/4/2005-22/4/2007	Konstantinos Tsiouvaras	Konstantinos Matis
22/4/2007-11/9/2009	Konstantinos Tsiouvaras	Goupos Christos
11/9/2009-11/9/2011	Pavlos Efthymiou	Ploutarchos Kararizos
11/9/2011-11/9/2013	Panagiotis Stefanidis	Christos Vlachos
11/9/2013-11/9/2015	Panagiotis Stefanidis	Ioannis Filippou
11/9/2015-28/8/2017	Panagiotis Stefanidis	Ioannis Gitas
28/8/2017-1/9/2019	Ioannis Gitas	Dimitrios Bakaloudis
1/9/2019-1/9/2021	Ioannis Gitas	Anastasia Stergiadou
1/9/2021-1/9/2023	Ioannis Gitas	Ganatsas Petros

## Honorary Doctorates of the School/Faculty of Forestry and Natural Environment

- **VICTOR KUONEN †**  
Professor of the ETH-Zurich  
*Convocation 31-3-1988*
- **ANGELOS AND NIKI GOULANDRI**  
Chair and Vice-Chair  
of the Goulandris Museum of Natural History  
*Convocation 99/2-6-1988*
- **LUC HOFFMANN**  
Honorary Vice-Chairman of W.W.F.  
*Convocation 211/19-10-1992*
- **HIS EXCELLENCY THE ECUMENICAL PATRIARCH Mr. VARTHOLOMEOS**  
*Convocation 353/1-10-1997*
- **FRANZ SCHMITTHÜSEN**  
Professor of the ETH-Zurich  
*Convocation 608/2-6-2004*

## Telephones and e-mails of the School/Faculty of Forestry and Natural Environment, Teaching and Research Personnel, etc.

### ACADEMIC, TEACHING AND LABORATORY STUFF

Surname-Name-Position	Office tel.	Office fax	Finikas tel.	Finikas fax	e-mail
Abraham Eleni (P.)	998936	998886	992301	992729	eabraham@for.auth.gr
Alizoti Paraskevi (Assoc. P.)	998925		992769	992777	alizotp@for.auth.gr
Andreopoulou Zacharoula (P.)	998969		992714	992717	randreop@for.auth.gr
Aravanopoulos Filippos (P.)	998925		992778	992777	aravanop@for.auth.gr
Aslanidou Maria (S.L.T.P.)	998916	998881	992733		maslan@for.auth.gr
Bakaloudis Dimitrios (P.)			992684		debakaloudis@for.auth.gr
Barbas Evangelos (Assoc. P.)	998925		992755	992777	vbarbas@for.auth.gr
Chouvardas Dimitrios (S.L.T.P.)			992343	992729	xouv@for.auth.gr
Christopoulos Elias (S.L.T.P.)			992773	992773	ichristo@for.auth.gr
Chrysopoulou Sofia (S.T.L.P.)			992327		schryso@for.auth.gr
Diamantopoulou Maria (Assist. P.)	998957		992721		mdiamant@for.auth.gr
Dimitrakopoulos Alexandras (P.)			992707	992707	alexdimi@for.auth.gr
Eleftheriadou Eleni (P.)			992771	992773	eelefthe@for.auth.gr
Ganatsas Petros (P.)	998915		992445	998905	pgana@for.auth.gr
Ganatsios Harisios (S.L.T.P.)			992337		cganats@for.auth.gr
Giannakopoulos Vasileios (S.L.T.P.)			992340		vgian@for.auth.gr
Giannoulas Vasileios (P.)	998977	998979	992744	992728	vgiannou@for.auth.gr
Gitas Ioannis (P.)			992699	992677	igitas@for.auth.gr
Karatassiou Maria (Assoc. P.)	998936	998886	992302	992729	karatass@for.auth.gr
Kokkinakis Antonis (P.)			992704		akokkin@for.auth.gr
Lykidis Charalampos (Assist. P.)					clykidis@for.auth.gr
Makra Maria (S.L.T.P.)			992690	992326	mmakra@for.auth.gr
Mantzanis Konstantinos (S.L.T.P.)			992734	992729	konman@for.auth.gr
Mavrokordopoulou Olga (S.L.T.P.)			992333		olgamavr@for.auth.gr
Myronidis Dimitrios (Assoc. P.)			992736		myronid@gmail.com
Nanos Nikolaos (Assoc. P.)			992702		nikosnanos@for.auth.gr
Panagiotidis Sampson (Assoc. P.)			992745	997773	pansamp@for.auth.gr
Papadimitriou Achilleas (S.L.T.P.)	998995	998979	992716	992728	apapadim@for.auth.gr
Papadimitriou Maria (S.L.T.P.)			992313	992729	mpapadim@for.auth.gr
Papaioannou Athanasios (Assoc. P.)			992767	992681	apapaioa@for.auth.gr
Paralikidis Nikolaos (S.L.T.P.)			992686	992682	paralika@for.auth.gr
Parissi Zoi (Assoc. P.)	998936	998886	992335	992729	pz@for.auth.gr
Pipinis Ilias (S.L.T.P.)			992311	992311	epipinis@for.auth.gr
Psilovikos Thomas (S.L.T.P.)			992728		tvikos.for.auth.gr
Sapountzis Marios (Assoc. P.)	998896	998892	992730		sapuntsi@for.auth.gr

Surname-Name-Position	Office tel.	Office fax	Finikas tel.	Finikas fax	e-mail
Sidiropoulou Anna (S.L.T.P.)			992312	992729	asidir77@for.auth.gr
Scaltsoyiannes Apostolos (P.)	998925		992776	992777	skaltsoy@for.auth.gr
Sklavou Paraskevi (S.L.T.P.)	998938	998886			psklavou@for.auth.gr
Skoufa Eleftheria (S.L.T.P.)		998863	992444		elskoufa@for.auth.gr
Stamatellos Georgios (P.)	998958	998861	992754		stamatel@for.auth.gr
Stathis Dimitrios (P.)	998987	998892	992715		dstatis@for.auth.gr
Stergiadou Anastasia (Assoc. P.)	998993	998979	992735	992728	nanty@for.auth.gr
Tampakis Stylianos (Assoc. P.)	992756				stampaki@for.auth.gr
Theodoropoulos Konstantinos (P.)	998918		992765	992773	ktheodor@for.auth.gr
Tsakalimi Marianthi (S.L.T.P.)			992325	992311	marian@for.auth.gr
Tsaksira Maria (Assoc. P.)	998925		992334	992777	tsaksir@for.auth.gr
Tsitsoni Thekla (P.)	998904	998904	992763	992763	tsitsoni@for.auth.gr
Tsioras Petros (Assist. P.)	998875		992336		ptsioras@for.auth.gr
Tsougrakis Ioannis (S.T.L.P.)					picus@for.auth.gr
Tsoulpha Parthena (Assoc. P.)	998925		992709	992777	thena@for.auth.gr
Yiakoulaki Maria (P.)	998942		992307	992729	yiak@for.auth.gr
Zagas Theocharis (P.)	998903	998904	992762	992763	zagas@for.auth.gr

## Secretariat Personnel

Surname-Name-Position	Office tel.	Office fax	e-mail
Georgitsopoulou Paraskevi, Head of the Secretariat	995199	995202	evigeo@for.auth.gr
Mitsopoulos Emmanouil	995196	995202	emitsopo@for.auth.gr
Alifakioti Triantafillia	995192		talifaki@for.auth.gr
Samuelidou Alexandra	995195	995202	alexsam@for.auth.gr
Makri Christina	992442		xristimakri@gmail.com
Georgiadou Anastacia	992718		

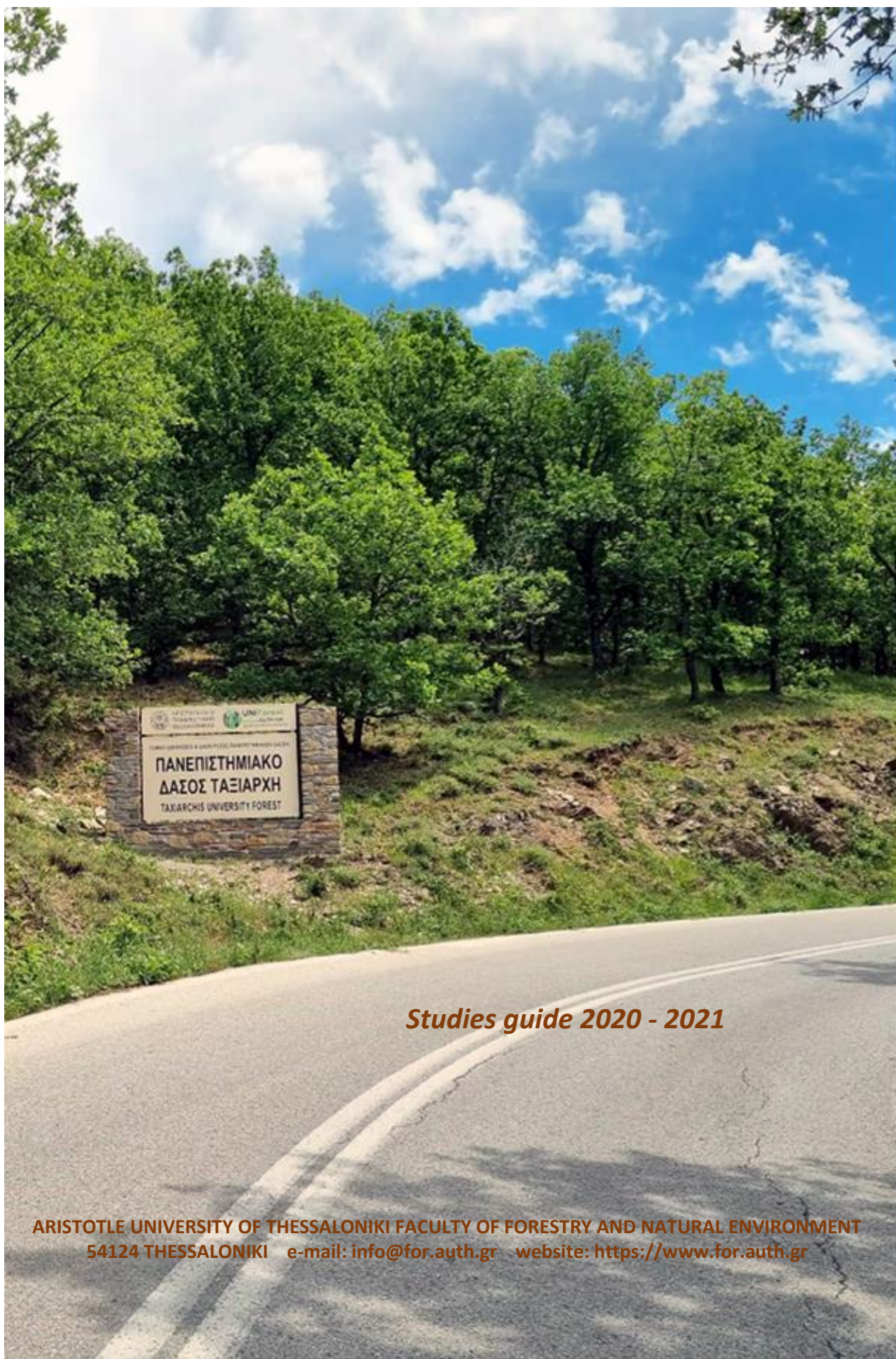
## Personnel of University Forests Administration Fund

Surname-Name-Position	Pertouli tel. & fax	Taxiarchistt tel. & fax	Finikas tel.	Finikas fax	e-mail
Adamopoulou-Douka Melpomeni			992347	209519	madamopoulou@for.auth.gr
Lazaridou-Tsilogianni Vaia			992344	209519	vlazar@for.auth.gr
Kottis Dimitrios		23710- 94295			kottis@uniforest.auth.gr
Vezirgenidou-Samolada Theodora			992346	209519	vlazar@for.auth.gr
Alexiou Vasilios	24310- 91207 24313- 51532				vasalexiou@uniforest.auth.gr

## Useful telephones

Reception of the Building of the Former Faculty of Agriculture and Forestry, Central University Campus	998869
Maintenance: Building of the Former Faculty of Agriculture and Forestry, Central University Campus	998868
Maintenance: Finikas Campus	992726
Library of the Faculty Forestry and Natural Environment	992442
Conference Room, Building of the Former Faculty of Agriculture and Forestry, Central University Campus	998787
Multipurpose Room of the Faculty of Forestry and Natural Environment	998400





*Studies guide 2020 - 2021*

ARISTOTLE UNIVERSITY OF THESSALONIKI FACULTY OF FORESTRY AND NATURAL ENVIRONMENT  
54124 THESSALONIKI e-mail: [info@for.auth.gr](mailto:info@for.auth.gr) website: <https://www.for.auth.gr>