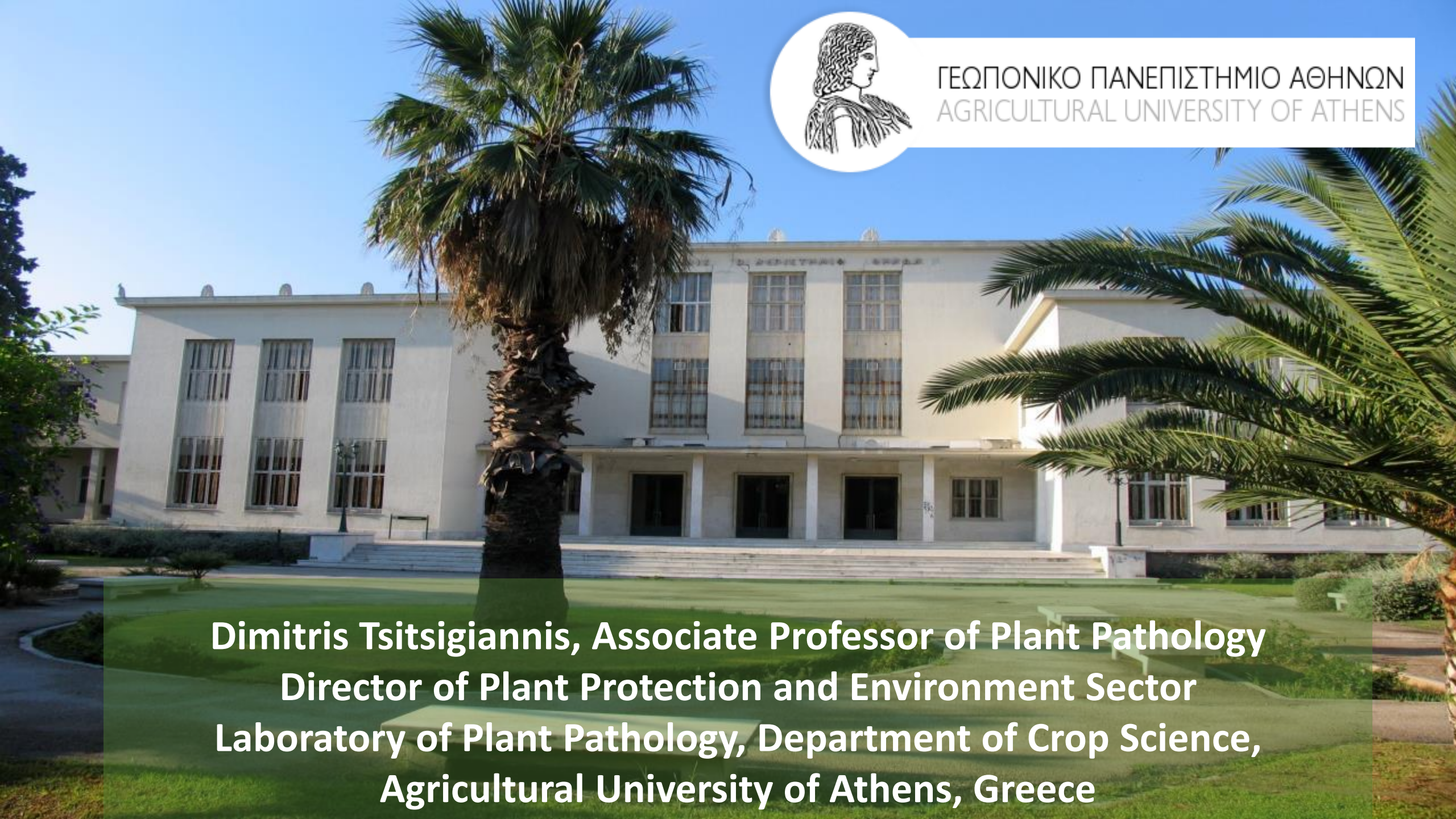

Dimitris Tsitsigiannis, Associate Professor of Plant Pathology
Director of Plant Protection and Environment Sector
Laboratory of Plant Pathology, Department of Crop Science,
Agricultural University of Athens, Greece


Tirana
Macedonia (FYROM)
Albania
Edirne
Thessaloniki
Θεσσαλονίκη
Çanakkale
Greece
Patras
Πάτρα
Agricultural University of Athens
Manisa
İzmir
Bodrum
Chania
Χανιά
Heraklion
Ηράκλειο
Kriti
Google
Promitheftikos Organismos Naftikou
Προμηθευτικός Οργανισμός Ναυτικού
EXPLOITATION OF NATURAL...
Evga S.A
ΕΒΓΑ Α.Β.Ε.Ε
Xrisi Efkeria
Χρυσή Ευκαιρία
Ierа Odos
Par. Ierа Odos
Athinais Museum
Μούσειο Αθηναίς
Agricultural University of Athens
Γεωπονικό Πανεπιστήμιο Αθηνών
ΓΕΩΠΟΝΙΚΗ ΣΧΟΛΗ
Car rental agency
Enterprise Rent A Car
Athens Downtown
Nafpliou
Efrosinis
Pilou
Naousis
Koritsas
Aseas
Kastorias
Kassandras
Chalkidikis
Rodopis
Grevenon
Sidirokastrou
Petkon

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Agricultural University Athens - AUA

- 25 ha campus at the center of Athens
- 60 buildings
- 10 large amphitheaters
- 26 smaller teaching rooms
- 42 laboratories
- Library
- Agricultural museum
- 200 faculty staff and 220 researchers
- About 4500 (active) students
  - 500 MSc students
  - **354 PhD candidates**

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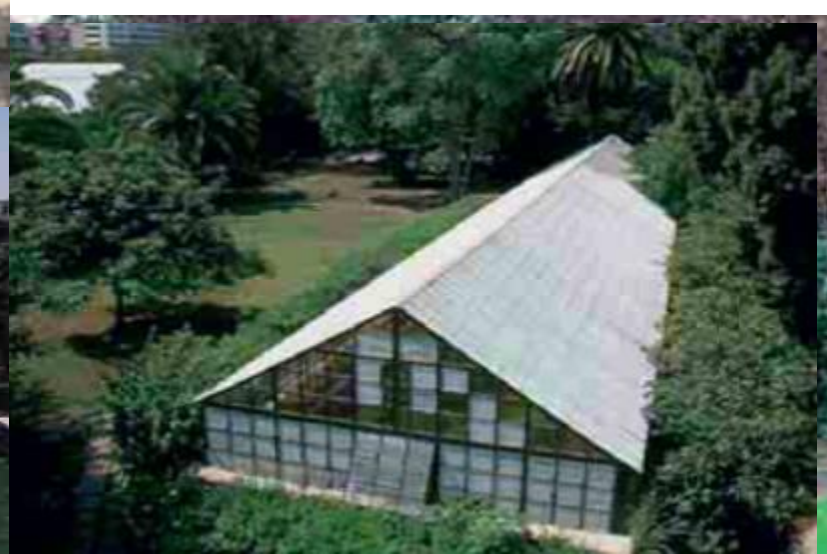
AUA_promo

beautiful
campus



beautiful
campus

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- **AUA Departments (award diplomas)**
  - **School of Agriculture, Engineering and Environmental Sciences**
    - Crop Science
    - Animal Science
    - Natural Resources and Agricultural Engineering
  - **School of Food, Biotechnology and Development**
    - Food Science and Human Nutrition
    - Biotechnology
    - Economics and Rural Development

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New AUA Schools (2019-2020)

- **School of Plant Sciences**
  - Dept of Crop Science
  - Dept of Forestry and Natural Environmental Management
- **School of Animal Sciences**
  - Dept of Animal Science
  - Dept of Hydrobiology and Aquaculture

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New AUA Schools (2019-2020)

- **School of Environment, Agricultural Engineering and Economic Development**
  - **Dept of Economics and Rural Development**
  - **Dept of Natural Resources and Agricultural Engineering**
  - **Dept of Informatics**

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New AUA Schools (2019-2020)

- **School of Food Science and Human Nutrition**
  - Dept of Food Science and Human Nutrition
  - Dept of Dietetics and Life Quality
- **School of Applied Biology and Biotechnology**
  - Dept of Biotechnology
- **School of Applied Economics and Social Sciences**
  - Dept Management of Agricultural Business and Logisitics
  - Dept of Regional and Economic Development
  - Dept of Culture and Rural Tourism

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Agricultural University Athens - AUA

What we do

- **Research / teaching on:**
  - Crop science
  - Animal science and aquaculture
  - Food and feed production
  - Food processing technology
  - Biotechnology
  - Biomaterials and energy
  - Natural resources and environment
  - Economics and rural development

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University administration

- The Council
- Senate (academic matters)
- Schools and Deans
- Research funds are managed by the “Research Committees”

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Agricultural University of Athens Research Committee

- The research Committee administers funds for:
  - research
  - education
  - training
  - technological development
  - provide other supporting services
- The research Committee is comprised by representatives from all Depts

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Fields of collaboration

- Education
- Life long training
- Research
- Research results exploitation

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Faculty of Crop Science

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Crop Sciences Laboratories

- **Agricultural Zoology and Entomology**
- **Apiculture**
- Agronomy
- **Ecology and Enviromental Science**
- Electron Microscopy
- Floriculture and Landscape Architecture
- General and Agricultural Meteorology
- General and Agricultural Microbiology
- Vegetable Production
- Viticulture
- **Pesticide Science**
- **Phytopathology**
- Plant Breeding and Biometry
- Plant Physiology and Morphology
- Pomology
- Systematic Botany
- Sericulture and Apiculture

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Teaching personnel

- Number of professors teaching subjects in agriculture in the Department of Crop Science: 52
- Number of **professors** teaching subjects related to **plant health** (plant pathology, entomology, zoology, weed science, pharmacology, application of pesticides etc): **27**

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Overview of the AUA study programmes in agriculture (BS, MSc, PhD)

- **B.Sc. is equivalent to Integrated Master of Science**
  - Duration 5 years: 4 years + 1 year Specialization
  - 300 ECTS
- **M.Sc. 18 months " Integrated Management Systems in Plant Protection and Environment"**
  - 90 ECTS (13 offered courses in Plant Health)
  - Duration 18 months
- **PhD programme**
  - No classes (if needed can be selected from the Master program)
  - Duration 3 years (min) – 6 years (max)

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Overview of the AUA study programmes in agriculture (BS, MSc, PhD)

- **Number of students per cycle**
  - Crop Science 200-230 students/year (B.Sc)
  - M.Sc. max 30 students/year
- **Current number of PhD students involved in plant health issues**
  - 40
- **Basic resources relevant for implementation of PhD study programe**
  - Scholarships - Fellowships
  - Research Grants
  - State funds

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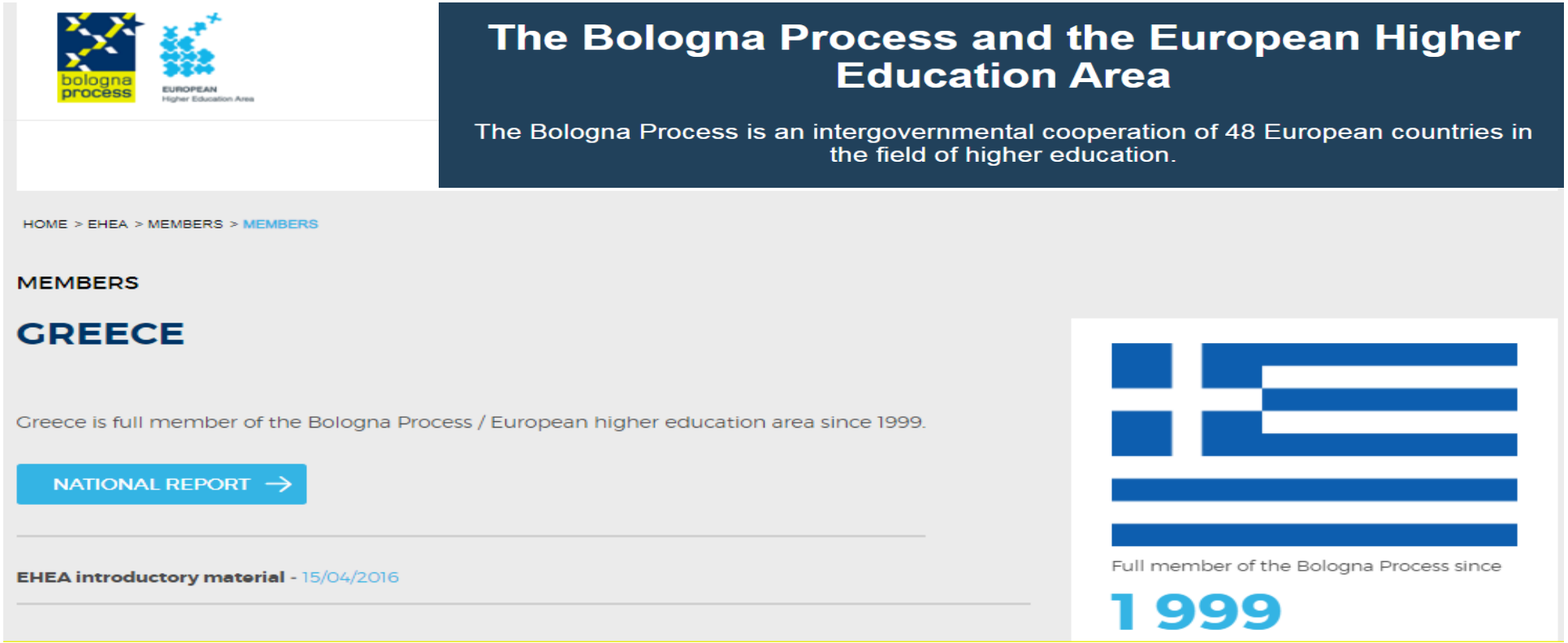
Greece is full member of the Bologna Process / European higher education area since 1999



The Bologna Process and the European Higher Education Area

The Bologna Process is an intergovernmental cooperation of 48 European countries in the field of higher education.

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MEMBERS

GREECE

Greece is full member of the Bologna Process / European higher education area since 1999.

NATIONAL REPORT →

EHEA introductory material - 15/04/2016

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1 999

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PhD study programme

PhD program in Crop Science of Agricultural University of Athens

- **3 years (min) – 6 years (max)**
- **No credits – ECTS**
- **No obligatory and elective courses**
- **Research work**
- **Compliance with the European Qualification Framework**

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Acceptance of students into the PhD Program of the Faculty of Crop Science

To be accepted in the PhD study program, a student should have:

- **Integrated Master**: 10 semesters, 4 years + 1 year Specialization (i.e. Plant Protection and Environment), research thesis (min 1 semester, usually 12-18 months)
- **Master of Science (M.Sc)**
- Exceptionally can be accepted students with a Bachelor (4 years studies) but will take extra courses and min time of PhD studies is 4 years

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Courses that focus on various disciplines in plant health (M. Sc.)

1st Semester		2nd Semester	
Courses	ECTS	Courses	ECTS
ADVNACED METHODS OF DIAGNOSIS OF PLANT DISEASES AND PESTS	6	INTEGRATED MANAGEMENT OF PLANT PESTS	6
INTEGRATED MANAGEMENT OF PLANT DISEASES	6	ENVIRONMENTAL TOXICOLOGY	6
MODERN TRENDS IN AGRICULTURAL PHARMACOLOGY	6	PRINCIPLES OF MOLECULAR PLANT PATHOLOGY	6
PESTS OF HOUSES AND WAREHOUSES - INSECTICIDES - MYOCTONES – DISINFECTION	6	RESIDUES OF PLANT PROTECTION PRODUCTS IN FOOD AND ENVIRONMENT	6
ADVANCED PLANT VIROLOGY	6	SPECIAL ISSUES IN ACAREOLOGY AND NEMATOLOGY	6
PATHOLOGY OF BEES AND SILKWORMS	6	HOST – PATHOGEN INTERACTIONS	6
		SPECIAL ISSUES IN ECOLOGY AND ENVIRONMENT	6

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PhD Program of the Faculty of Crop Science: goals

- Development of researchers to promote science
- Specialization in the fields of study of the Laboratories of the Faculty but also in related fields leading to a Ph.D. degree.
- Promotion of the knowledge and original and innovative scientific research as well as to “create” scientists capable of conducting independent research activity and contributing to the advancement of science, research and applications.
- To staff universities, research centers, companies and private and public sector organizations in Greece and internationally

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PhD candidate students - Responsibilities

- Can participate in educational processes (i.e. as teaching assistants in laboratory exercises, preparation of undergraduate lab course exams and other academic activities of the Faculty)
- Can help undergraduates to perform research for their theses
- Can cooperate with the supervisor in research projects
- Attend University seminars and other presentations
- Present the progress of their research work at seminars organized by the Faculty within the framework of the Second Cycle of Studies

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PhD candidate students - Responsibilities

- The PhD Candidate should seek an active presence in the international academic system, by participating in seminars or scientific conferences, aiming at recognizing his research, primarily by publishing in research journals.
- The publication of the results of the dissertation by the candidate before the PhD defense is mandatory and is indicative of its originality. In all kinds of publications or announcements the PhD candidate is the first writer.
- The Faculty of Crop Science has Regulations of PhD Studies (23 articles, 26 pages). Issues related to Ethics, Plagiarism, Intellectual property rights are discussed.

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Courses that focus on various disciplines in plant health (M. Sc.)

1st Semester		2nd Semester	
Courses	ECTS	Courses	ECTS
ADVNACED METHODS OF DIAGNOSIS OF PLANT DISEASES AND PESTS	6	INTEGRATED MANAGEMENT OF PLANT PESTS	6
INTEGRATED MANAGEMENT OF PLANT DISEASES	6	ENVIRONMENTAL TOXICOLOGY	6
MODERN TRENDS IN AGRICULTURAL PHARMACOLOGY	6	PRINCIPLES OF MOLECULAR PLANT PATHOLOGY	6
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ADVANCED PLANT VIROLOGY	6	SPECIAL ISSUES IN ACAREOLOGY AND NEMATOLOGY	6
PATHOLOGY OF BEES AND SILKWORMS	6	HOST – PATHOGEN INTERACTIONS	6
		SPECIAL ISSUES IN ECOLOGY AND ENVIRONMENT	6

Course Case Study: ADVANCED METHODS OF DIAGNOSIS OF PLANT DISEASES AND PESTS

- Diagnosis of biotic and abiotic diseases in the field. Description of the factors causing diseases at the crop, plant and laboratory level.
- Identification of plant disease symptoms and signs. Observation of the distribution of symptoms in the field.
- Examining the history of cultivation. Description of the steps for the diagnosis of parasitic and non-parasitic diseases at the field level.
- Clinical and laboratory diagnosis. Classical, biochemical, molecular diagnosis. Smart diagnosis of diseases with electronic means (multi-spectral cameras, sensors, spectrophotometers) and others.
- Diagnosis of insect pests and estimation of the factors that caused them at the filed and plant level. Search and collect the necessary data to decide on spraying against insect-crop pests. Diagnosis and prescription of plant protection products. Advanced methods of monitoring insect pest populations by electronic means.

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AUA PhD program – SWOT analysis

Strengths

- The advancement of knowledge through original research
- The doctoral training meets the needs of an employment market that is wider than academia
- In respect of individual doctoral candidates, arrangements for supervision and assessment is based on a transparent contractual framework of shared responsibilities between doctoral candidates, supervisors and the institution
- The 7 members approved committee for the defence consist of experts from and outside the University
- Graduates are successful in earning postdoc positions in Greece or abroad

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AUA PhD program – SWOT analysis

Strengths

- AUA doctoral programme and research training are designed to meet new challenges and include appropriate professional career development opportunities
- The interest of graduates to continue their higher education towards the PhD. degree is currently increasing
- PhD. students should usually have published at least 2 papers in current contents journals (or indexed in other international databases) along with other outputs.

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AUA PhD program – SWOT analysis

Weaknessess

- The doctoral programme usually exceeds an appropriate time duration (> 3-4 years full-time).
- Lacks significant interdisciplinarity . Doctoral programmes should seek to offer geographical as well as interdisciplinary and intersectoral mobility and international collaboration within an integrated framework of cooperation between universities and other partners.
- The development of quality doctoral programmes and the successful completion by doctoral candidates requires appropriate and sustainable funding.
- No ECTS in the doctoral program

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AUA PhD program – SWOT analysis

Opportunities

- Research training is designed to meet new challenges and include appropriate professional career development opportunities
- To earn international experience by participation in the European research and educational mobility programmes.
- Several fellowships from research state funds

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AUA PhD program – SWOT analysis

Threats

- The budget that comes from the government does not provide sufficient support to cover expenses for doctoral students´ work. Therefore, this problem lies fully on supervisors who have to earn money for PhD. students from grant agencies in order to provide updated research tools and smart technologies to PhD candidates.

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Current PhD theses that are in process in AUA

1. The effect of epigenetic heredity on the biological management of the fungus *Vetricillium dahliae*

2. Integrated management of aflatoxins and aflatoxigenic fungi in pistachios

3. Phytopathological and molecular investigation of *Botryosphaeria* species isolated from economically important crops for Greece

4. Mycotoxigenic fungi and methods of integrated mycotoxin management in barley crops and during the malting process

5. Advanced methods of integrated ochratoxin management in vineyards

Completed PhD theses in AUA

A. Study of insecticidal activity of diatomaceous earth powder on the insect *Tribolium confusum* (Coleoptera: Tenebrionidae) with emphasis on efficacy, residual duration of action and possible development of resistance.
B. Determination and expression of genes involved in plant induced resistance to vascular wilts
C. Systemics and incidence of Aphidiidae parasitoids aphids in Greece.
D. Evaluation of bioactivity of phytotoxins from pathogenic fungi of *Orobanche* sp.
E. Qualitative and quantitative study of mites in grasslands and meadows
F. Study of the morphology and biology of the predatory insect *Phyzobius lophanthae* Blaisdell (Coleoptera: Coccinellidae), a natural enemy of the scale Diaspididae family (Homoptera: Coccoidea), in Greece.
G. Phytopathological and molecular investigation of the interaction of *Verticillium dahliae* with the host plant


Thank you!!