





DEPARTMENT OF AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES

**ECTS** 

180

## DEGREE COURSE IN AGRICULTURAL AND ENVIRONMENTAL SCIENCES

Duration 3 years



## **Course Coordinator**

Prof. Francesco Tei tel +39 075 585 6320 e-mail francesco.tei@unipg.it

## **Quality Manager**

Prof.ssa Lara Reale tel +39 075 585 6406 e-mail lara.reale@unipg.it

## **Teaching goals**

The Degree Course in Agricultural and Environmental Sciences (SAA) trains graduates with a solid multidisciplinary scientific competence and with adequate professional knowledge needed to carry out consulting activities, and technical and economic management in the different productive segments of agricultural sector, with particular attention to the quantitative and qualitative aspects of agricultural production, including the environmental one, and to scientific, technological and biotechnological innovations.

The course is divided into two curricula "Sustainable Agriculture" and "Biotechnology"

Courses and ECTS		Learning objectives
Fundamental courses		
Mathematics	6	<ul> <li>The course offers the required training for graduates to enhance the multifunctionality of agricultural sector and to provide professional support for the production, processing and promotion of agricultural products, to organize the planning and management of the territory, to deal with environmental protection and to expand of new economic spaces (rural tourism, management of green areas, etc.).</li> <li>For these purposes, scientific knowledge and professional skills will be developed regarding to: <ul> <li>environmental and anthropic factors interacting with production systems applied in agriculture;</li> <li>biological and technological aspects of the production, conservation and transformation processes of agricultural and livestock productions and food products in full compliance with environmental resources;</li> <li>biochemistry and molecular biology knowledge, fundamental for the development of biotechnologies;</li> <li>organizational set-up and economic aspects of agricultural and zootechnical production and agri-food products;</li> <li>structural and socio-economic configuration of agricultural, agrifood and rural systems</li> <li>analysis, monitoring and evaluation of the rural territory, with particular reference to the sustainable economic and ecological management of environmental resources;</li> </ul> </li> </ul>
Chemistry	9	
Botany	12	
English Level B1	4	
Physics	6	
Plant Physiology	6	
Genetics	9	
Microbiology	6	
Agroecology and agronomy	9	
General arboriculture and nursey technique	9	
Pathology and entomology	12	
Tree cultivation	12	Course organization
Crop Science	15	The course includes, in addition to face-to-face lecturing, seminars, practical activities in laboratories, study visits and practical training sessions carried out in structures affiliated with the DSA3. The education is completed with the knowledge of a foreign language, with the possibility to carry out periods of study at European universities and to personalize the preparation with courses of free choice. The course allows access to the Master's Courses offered by the DSA3 as established by the specific regulations.
Counselling and other educational activities	12	
Undergraduate training	6	
Final dissertation	3	
CURRICULUM SUSTAINABLE AGRICULTURE		
Agricultural Chemistry	9	Skills and career opportunities
Agricultural hydraulics	6	<ul> <li>The education and training acquired allows you to work, as a professional (junior agronomist), to: <ul> <li>manage and enhance agricultural and livestock production processes;</li> <li>contribute to sustainable rural development activities;</li> <li>collaborate in the realization of projects of green spaces and with landscape-environmental value.</li> </ul> </li> <li>Graduates can work in: <ul> <li>public bodies (ministries, regional development agencies, local authorities) and private companies (agricultural companies, professional firms, industries, etc.) that deal with agricultural production _ activities, technical assistance, protection of environment, land management.</li> <li>research and training centers and institutions that deal with the various aspects inherent to agricultural activity;</li> <li>educational, editorial, communication institutions and organizations aimed at educating respect for the environment.</li> <li>international bodies (governmental and non-governmental) that deal with aspects of agricultural development.</li> </ul> </li> </ul>
Animal Science	6	
Foundations of Economics	6	
Food Economics and rural appraisal	12	
Food Technology	6	
CURRICULUM BIOTECHNOLOGIES		
Biochemistry	6	
Animal Science	6	
Agricultural Economics	6	
Biotechnologies applied to the agricultural systems	15	
Molecular Biology	6	
In vitro cultures	6	