



UNIVERSITÀ DEGLI STUDI DI PALERMO

Department: Agricultural, Food and Forestry Science

A.Y. 2023/2024

DEGREE COURSE IN AGRICULTURAL SCIENCES AND TECHNOLOGIES

- AGRICULTURAL SCIENCES - CALTANISSETTA -

Characteristics



Class of Bachelor's Degree
(BSc) on Agriculture and
Forestry (L-25)



3 YEARS



CALTANISSETTA



FREE ACCESS



2227

Educational objectives

The Degree Course in Agricultural Science and Technologies (STA) provides competences in the agricultural sector, with respect, in particular, to the technologies and management of plant and animal productions in their qualitative, quantitative and hygienic-sanitary aspects, to the transformation and marketing of products, to the technical-economical management of agricultural farms, to the application of rural development policies and to the evaluation of land, equipment, technical means and products.

Graduates of this course should acquire core competences in subjects such as Mathematics, Chemistry, Plant and animal Biology, Agricultural genetics, which are propaedeutic to professional competences. This professional groundings includes the principles of agronomy, agro-ecology, as well as the principles of crop defence and of livestock breeding.

During the course, students will acquire the knowledge of the techniques for surveying animal and plant biological parameters, enabling them to carry out field surveys and the relevant qualitative and quantitative processing needed to understand the production and transformation processes of agricultural products and the preservation of rural heritage. They will also acquire the principles of hydraulics, agricultural mechanics and agricultural economics, as well as of rural and market development policies, of the tools for evaluating landed property, for designing and evaluating cultivation systems and for the technical-economic management of conventional and organic agricultural farms, as well as of transformation companies, which are indispensable for carrying out their professional activity.

The profile also requires the dialectical skills needed to disclose and discuss individual technical ideas with specialists and non-specialists, command of English language or of another European language, which is necessary for reading and interpreting technical texts, for professional exchanges and for basic dissemination.

Acquired competences will enable graduates, in their role of junior agronomists, to tackle and solve the following issues:

- the cultivation techniques of plant species (trees, herbs, vegetables and flowers) and operation of conventional and organic livestock systems;
- agricultural mechanics and mechanization of crops and livestock farms;
- interventions of hydraulic-agrarian arrangement and design of irrigation and drainage systems;
- processing and conservation of plant and livestock products;
- environmental and crop protection from abiotic and biotic adversities;
- sustainable management, protection and enhancement of the agricultural and environmental heritage;
- the economy of the agricultural company, the agro-environmental policy and the valuation of land assets.

Furthermore, first-level training provides the knowledge needed suitable for understanding the themes proposed in 2nd cycle courses.

Educational activities consist of lectures, laboratory and field practice.

The course lasts three academic years. To achieve the degree, students should have acquired 180 credits (CFU), including the ones related to the knowledge of an European Union language, besides Italian, subject to the special rules for the protection of linguistic minorities.

The educational programme provides for 19 mandatory exams and elective subjects, the English language test, laboratories (including technical English for agriculture), a practical training period in external facilities and the final examination aiming at assessing students' basic and specific knowledge.

The elective credits may be acquired, in accordance with article 10, paragraph 5, letter a) of DM 270/04, choosing freely among teachings provided by other courses of the University of Palermo and of other Italian and foreign universities.

At the end of the course students obtain the title Dottore in "Scienze e Tecnologie Agrarie and, after passing the national

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professional qualification exam, they may register in Section B (Agronomist Junior) of Professional Registrar of “Dottori Agronomi e Forestali”.

Professional opportunities

Profile:

CROP TECHNICIAN

functions:

The crop technician is an expert in the design and management of horticultural-floricultural and fruit crops systems.

Skills:

Agronomic Planning and management of agrarian production systems. Ability to design targeted interventions within the supply chains. Sustainable management and development of agricultural and environmental heritage. Conduction of technological production systems

Professional opportunities:

Graduates, in addition to the natural continuation of their studies, may find employment in all the activities connected with the exercise of agriculture in public and private companies and can carry out freelance activities as Junior Agronomist, enrolling in the professional register of the “albo Professionale dei Dottori Agronomi e Forestali” (Section B). Other job opportunities include public bodies, international institutions and public and private research.

Profile:

LIVESTOCK PRODUCTION TECHNICIAN functions:

These technicians are experts in conducting livestock systems.

Skills:

Ability to manage livestock systems from the production of animal feed, to husbandry, to the production of milk, meat and by-products. Ability to design targeted interventions within the production chain.

Professional opportunities:

Graduates, in addition to the natural continuation of their studies, may find employment in all the activities connected with the exercise of agriculture in public and private companies and can carry out freelance activities as Junior Agronomist, enrolling in the professional register of the “albo Professionale dei Dottori Agronomi e Forestali” (Section B). Other job opportunities include public bodies, international institutions and public and private research.

Profile:

TECHNICIAN FOR THE INTEGRATED MANAGEMENT OF BIOTIC ADVERSITIES

Functions:

The technician for the integrated management of plant adversities is a first-level expert able to plan conventional, integrated and biological defence interventions from biotic and abiotic adversities in Mediterranean cultivation systems.

Skills:

Planning strategies for the management of biotic adversities based on the biology and behaviour of phytophagous arthropods and phyto-pathogenic agents. Analysis of biological, biotechnical and alternative methods, suitable and adaptable to the protection of plants from pests. Evaluation of the use of plant protection products and of the side effects in ecological and toxicological terms.

Professional opportunities:

Graduates, in addition to the natural continuation of their studies, may find employment in all the activities connected with the exercise of agriculture in public and private companies and can carry out freelance activities as Junior Agronomist, enrolling in the professional register of the “albo Professionale dei Dottori Agronomi e Forestali” (Section B). Other job opportunities include public bodies, international institutions and public and private research.

FARM MANAGEMENT TECHNICIANS

Functions:

Farm management technicians are experts capable of dealing with the technical and economic management of farms.

Skills:

Economic management of agricultural and livestock resources. Ability of enforcing the key industry regulations and the principles of agricultural economics and rural valuation. Planning and settling of farms, drafting of farm budgets and economic convenience assessment, estimates of land property and agriculture products.

Professional opportunities:

Graduates, in addition to the natural continuation of their studies, may find employment in all the activities connected with the exercise of agriculture in public and private companies and can carry out freelance activities as Junior Agronomist, enrolling in the professional register of the “albo Professionale dei Dottori Agronomi e Forestali” (Section B). Other job opportunities include public bodies, international institutions and public and private research.

ORGANIC PRODUCTIONS TECHNICIAN

Functions:

The organic productions technician is a first-level expert able to deal with consulting, technical assistance and dissemination for agricultural and agro-industrial companies operating in organic farming.

Skills:

Ability to manage production processes in the agricultural and agro-ecological fields, with basic skills in the management of businesses and production systems (vegetable and zoo technical) in the organic regime, and in the application of specific regulations and policies for the sector. Ability to operate in the areas of certification and marketing of organic agricultural and food products in the different types of supply chain, including the short one.

Professional opportunities:

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Final examination features

The final test has the objective of assessing the level of maturity and critical skills of the undergraduate, with respect to learning and to the acquired knowledge, on completion of the activities provided by the course syllabus. The final examination consists of an interview, in accordance with the rules fixed every year by the Degree Course Regulation, consistent with the Course Educational Regulations. The topic of the interview is chosen by students from a list prepared with specific resolution of the Board, published, at the beginning of each academic year on the Course website. The choice of the topic must be contextual to the presentation of the degree application through IT procedures.

Subjects 1 ° year	CFU	Sem.	Val.	SSD	TAF
01900 - GENERAL AND INORGANIC CHEMISTRY <i>Lisuzzo(RD)</i>	7	1	V	CHIM/03	A
16127 - MATHEMATICS <i>Iannuzzo(PC)</i>	8	1	V	MAT/07	A
18803 - PLANT MORPHOLOGY AND PHYSIOLOGY <i>Mirabile(RD)</i>	7	1	V	BIO/03	A
18713 - SYSTEMATICS AND IDENTIFICATION OF THE MEDITERRANEAN AND EXOTIC PLANT SPECIES - LABORATORY <i>Mirabile(RD)</i>	3	1	G		F
04735 - EU FOREIGN LANGUAGE <i>Fucarino(PC)</i>	3	1	G		E
11812 - AGRICULTURAL GENETICS <i>Marchese(PA)</i>	7	2	V	AGR/07	A
19935 - GENERAL AGRONOMY <i>Iacuzzi(RD)</i>	7	2	V	AGR/02	B
01933 - ORGANIC CHEMISTRY <i>Campisciano(RD)</i>	7	2	V	CHIM/06	A
18711 - SOIL CLASSIFICATION AND RECOGNITION LABORATORY <i>Scalenghe(PA)</i>	3	2	G		F
18714 - ZOOLOGICAL TAXONOMY AND DEMOGRAPHY LABORATORY <i>Cusumano(PA)</i>	3	2	G		F

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
15480 - AGRICULTURAL BIOCHEMISTRY AND SOIL CHEMISTRY <i>De Pasquale(PA)</i>	9	1	V	AGR/13	B
12501 - ELEMENTS OF AGRICULTURAL ECONOMICS AND POLICY <i>Testa(RD)</i>	8	1	V	AGR/01	B
02078 - TREE FARMING <i>Marra(PO)</i>	9	1	V	AGR/03	B
18712 - BUDGET PREPARATION AND ANALYSIS FOR THE AGRICULTURAL FIRM - LABORATORY <i>Testa(RD)</i>	3	1	G		F
03774 - AGRICULTURAL HYDRAULICS <i>Nicosia(RD)</i>	7	2	V	AGR/08	B
04949 - AGRICULTURAL MECHANICS AND MECHANISATION <i>Comparetti(PA)</i>	7	2	V	AGR/09	B
12498 - CROP SCIENCE <i>Di Miceli(PA)</i>	7	2	V	AGR/02	B

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Subjects 2 ° year	CFU	Sem.	Val.	SSD	TAF
Free subjects (suggested)	12				D

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Subjects 3 ° year	CFU	Sem.	Val.	SSD	TAF
18710 - AGRI-FOOD MICROBIOLOGY	7	1	V	AGR/16	C
21245 - AGRI-FOOD TECHNOLOGIES <i>Planeta(PA)</i>	7	1	V	AGR/15	C
16094 - LAND APPRAISAL <i>Asciuto(PA)</i>	7	1	V	AGR/01	B
17650 - ZOOTECHNICS - INTEGRATED COURSE	10	1	V		
- GENERAL ZOOTECHNICS <i>Sardina(PA)</i>	7	1		AGR/17	B
- PETS MORPHO-PHYSIOLOGY AND NUTRITION <i>Todaro(PA)</i>	3	1		AGR/18	C
14184 - INTERNSHIP	5	1	G		F
16093 - AGRICULTURAL ENTOMOLOGY <i>Cusumano(PA)</i>	7	2	V	AGR/11	B
05457 - HORTICULTURE AND FLORICULTURE <i>Moncada(PA)</i>	7	2	V	AGR/04	C
11722 - PLANT PATHOLOGY <i>Davino(PO)</i>	7	2	V	AGR/12	B
18709 - TECHNICAL ENGLISH LANGUAGE FOR AGRICULTURE <i>Comparetti(PA)</i>	3	2	G		F
05917 - FINAL EXAMINATION	3	2	V		E

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OPTIONAL SUBJECTS

Free subjects (suggested)	CFU	Sem.	Val.	SSD	TAF
18706 - APIDOLOGY <i>Ragusa(RU)</i>	3	2	V	AGR/11	D
21859 - BIOTECHNOLOGIES AND NURSERY FOR WOOD SPECIES <i>Marra(PO)</i>	3	2	V	AGR/03	D
18707 - CHEMICAL-PHYSICAL SOIL ANALYSIS <i>De Pasquale(PA)</i>	3	2	V	AGR/13	D
18177 - ELEMENTS OF PEDO-LANDSCAPE CARTOGRAPHY <i>Scalenghe(PA)</i>	3	2	V	AGR/14	D

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