جامعة عمار ثليجي الاغواط
Université Amar Télidji Laghouat

كلية العلوم
Faculty of Sciences

قسم العلوم الفلاحية
Department of Agronomic Sciences

Master
Plant improvement

ماستر
تحسين النباتات

Terms of Access

The Master in Plant Breeding is open to students with: a bachelor's degree in Agronomic Sciences; a license in Plant Ecology and Environment; license in Biotechnology; License in Microbiology or any equivalent diploma (Subject to the opinion of the training team and the department's scientific committee, after studying the accompanying file).

Training Aims

Plant breeding plays a fundamental role in increasing the yield and quality of crops through the creation of varieties adapted to different environmental conditions, which better value the use of inputs and integrated into viable agricultural systems from the point of view environmental and economic, especially in the context of arid and semi-arid areas. This discipline has evolved into a complex science, which incorporates the instruments of molecular and cellular biology into classical methods of selection.

It is therefore necessary to train students of Agronomy in this field to meet the challenges of the agriculture of the future.

The Master will allow students to:

- Understand the basics and principles of modern plant genetic improvement, including genomics;
- Know the different selection and improvement processes and assess the advantages and disadvantages;
- How to integrate conventional techniques and the most recent methods leading to better efficiency into an improvement program;
- Plan an improvement program for a given species according to the specific conditions of our country and particularly of arid and semi-arid regions
- To initiate research, by applying in a critical way the acquired knowledge, capacities and skills, to the treatment of real problems linked to plant genetic improvement.

Also, the students (future manager and / or young entrepreneur) will be brought to deepen their knowledge on varietal selection and the improvement of agricultural production which use the latest techniques of biotechnology and genetics.

Therefore, the versatility sought by the program is an imperative of the job market. Indeed, it is no longer a question of designing development programs but it is necessary to be able to apply them by adapting them to the very diverse situations of agricultural Algeria.

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Employability potentially recruiting sectors




- The training opens perspectives in various fields related to agriculture in the public or private domain
- Teacher training for researchers in the university sector.
- Public research institutes.
- Private or public selection companies.
- Seed producing and distributing establishments.
- Technical and development institutes.
- The International Centers for Agronomic Research and Plant Improvement.
- Design office and / or adviser to farmers.
- Privateoperator.

Training content_ MasterPI

1 –Academicterm I | 2 - AcademictermII | 3 - AcademictermIII

TEACHING UNIT	TEACHING UNIT	TEACHING UNIT
TU_Fundamental	**TU_Fundamental**	**TU_Fundamental**
TUF1 : Code : TUF 1.1, Credit : 18, Coeff : 9	TUF1 : Code : TUF 2.1, Credit : 18, Coeff : 9	UEF1 : Code : TUF 3.1, Credit : 18, Coeff : 9
Subject 1: Plant Genetic Improvement **Subject2:**Plant Biotechnology and Plant Improvement. **Subject 3:**Plant genomics **Subject 4:**Special Phytotechnics	**Subject 1 :** Agricultural phylogenetic resources **Subject 2 :** Culture in-vitro **Subject 3 :** Plant ecophysiology **Subject 4 :** Agricultural techniques	**Subject 1 :** Plant resistance **Subject 2 :** Improvement methodology and varietal selection **Subject 3 :** Plant and seed production
TU_Methodology	**TU_Methodology**	**TU_Methodology**
TUM : Code : TUM 1.1, Credit : 9 Coeff : 5	TUM : Code : TUM 2.1, Credit : 9 Coeff : 5	TUM : Code : TUM 3.1, Credit : 9 Coeff : 5
Subject 1: Molecular genetics **Subject2 :**Biodiversity and Systematics of Plants Superior to an Economic Interest.	**Subject1** : Quantitative and population genetics **Subject 2 :** Plant protection II **Subject 3 :** Plant development physiology	**Subject 1 :** Agricultural experimentation and data analysis **Subject 2 :** Laboratory techniques in molecular biology
TU_Discovery	**TU_Discovery**	**TU_Discovery**
TUD : Code : TUD 1.1, Credit : 2, Coeff : 2	TUD : Code : TUD 2.1, Credit : 2, Coeff : 2	TUD : Code : TUD 3.1, Credit : 2, Coeff : 2
Subject 1: Plant Protection I	**Subject 1 :** Analysis of investment projects	**Subject 1 :** Research Methodology
TU_Transversal	**TU_Transversal**	**TU_Transversal**
TUT : Code : TUT 1.1, Credit : 1 Coeff : 1	TUT : Code : TUT 2.1, Credit : 1 Coeff : 1	TUT : Code : TUT 3.1, Credit : 1 Coeff : 1
Subject 1 : Communication	**Subject 1 :** Legislation	**Subject 1 :** Entrepreneurship