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| **Identity card of the specialty: Molecular biology** |

**Level:**Academic License

**Domain :**Science of Nature and Life (SNV).**Sector :**Biological Sciences.

**Speciality:**Molecular biology.

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| **1- Location of the training:** |

**Faculty (or Institute)**: Science of nature and life.

**Department**: Biology.

References of the license authorization order: Order No. 1600 of October 6, 2016.

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| **2- External partners:** |

**Companies and other socio-economic partners**:/

**International partners**:/

**Other partner establishments**: Algerian Center for Quality Control and Packaging CAQUE-BECHAR.

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| **3- General organization of the training: position of the project** |

Common foundation of the domain:

Natural and life sciences (SNV)

Major: Biological Sciences

Other Specialties in the sector concerned by compliance:

- Microbiology

Specialty object of compliance:

- Molecular biology

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| **4- Context of the training:** |

The training is mainly focused on molecular biology both theoretically and practically. At the end of this training, the student will have acquired fundamental and theoretical knowledge in molecular genetics by addressing in detail the structure, functioning and regulation of eukaryotic and prokaryotic genomes.

This training also offers basic knowledge in bioinformatics and genetic engineering and at the same time allows you to discover its various applications in the field of biotechnology.

On a practical level, this training allows the student to acquire a mastery of the tools and techniques of basic molecular biology, the most commonly used in the manipulation of the human genome and other living organisms (DNA extraction, DNA amplification, DNA digestion and others).

The mastery of other subjects such as applied biochemistry and the acquisition of a foreign language in particular English. At the same time, at the end of this training the student is prepared to easily follow an academic master's degree to arrive at a doctoral training.

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| **5- Objectives of the training:** |

This license offers a program mainly focused on the molecular biology of prokaryotic and eukaryotic organisms. It aims to prepare motivated and qualified students for a research career at the cutting edge of recent developments in biology and genetics. The training has four components: Courses, tutorials, practical work and seminars. The courses offered allow the acquisition of fundamental and recent knowledge in molecular biology, genetics and genetic engineering. Reading scientific articles and participating in seminars help students develop their oral and critical skills in addition to allowing them to keep their knowledge up to date in their area of ​​specialization.

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| **6- Profiles and skills targeted:** |

The knowledge acquired during the course of this mention of molecular biology allows:

* Continuation of studies towards academic and professional research Masters at the national and international level, in the fields of health, agronomy, bio-industry, etc.

Direct integration into working life:

* Medical analysis laboratories and food analysis laboratories where the graduate will be able to participate effectively in the various diagnostic and traceability activities (confirmation or denial of GMOs, etc.).
* It will also be very useful in the pharmaceutical field to control drugs (SAIDAL, etc.),
* at EPEAL level for water analysis,
* in supervision in local communities at the level of health and safety services, at the level of fraud prevention services,
* in the agro-food sectors (canneries, beverages, flour mills, semolina factories, confectionery, ice cream, meat and derivatives, etc.).

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| **7- Local, regional and national employability potential:** |

The license opens up to the executive function in the following sectors:

* Research Laboratory
* Medical analysis laboratories.
* Food analysis and control laboratories: eg: Algerian Center for Quality Control and Packaging (CACQE).
* Training institutes in biological sciences (training of technicians and laboratory technicians, etc.)

The master's degree in this course is a natural outlet for this Bachelor's degree in which the lessons cover all the prerequisites.