Program Hightlights

Program Name : Academic license in Electrical Engineering

Program URL :http://www2.univ-oeb.dz/fssa/cop-licence-eea/

Department:



Degree Name\* :



Study Level\* :



Course Intensity\* :



Study Mode\* :



MBA Program Type :



## Program Details

Broad Subject Area\* :



Main Subject\* :



Custom Subject :



Specialization :



Program Description:

Electrical energy plays a key role in the economic development of any country. It is inevitably vital for the functioning of all the mechanisms that govern the different social dynamics. Without electricity for 24 hours is the worst-case scenario for an industrialized country.

Actually, electrical engineering, in all its dimensions (production, transport, distribution, conversion and control) has occupied a primordial place in the industrial sector of the countries and continues to be the subject of particular attention, scientific investment and continuous technological improvement.

Electrical engineering keep gaining for several decades in all industrial and domestic fields.This trend has only been reinforced in recent years, thanks to progress in power electronics, microprocessors and programmable logic controllers (PLC). In effect, controlling the operation of electrical engineering systems and processes with precision while minimizing the energy consumed is currently possible thanks to power electronic interfaces and advanced control techniques that perform real-time processing by means of microprocessors (and PLC) ever more powerful.

On another note, the optimization of electrical engineering systems and the improvement of their performance is a key issue for the sector thanks to the application of sustainable development concepts by reducing their weight and using recyclable materials. All these major technological developments recorded in recent years have increased the needs of industrial companies in terms of skills in the field of electrical engineering. Investing in training and preparing managers to meet these challenges becomes trivial. It is in this spirit that this training is offered. The training is structured in 6 semesters, the first two of which (Common Base) concern all students in the Science and Technology field.

The third semester constitutes a pre-specialization and brings together all the students of the Electrical Engineering family. From semester 4, the lessons become specialized and are exclusively oriented towards electrical engineering. This bachelor degree, by its general nature, offers a balanced education in the four axes of the field of electrical engineering, namely: electrical machines, electrical grid networks, automatic control and power electronics. It is motivated by the fact that nowadays the four options of electrical engineering are very closely linked (an electric machine is often used with a static converter and the control circuit).

In summary, the first year is a platform that allows students to acquire basic knowledge in technological sciences. In addition to computer science, basic subjects (mathematics, physics and chemistry) are taught. The third semester contains basic electrical engineering lessons centered on fundamental electrical engineering and electronics, electrical and electronic measurements, signal theory and digital electronics. Finally, the last three semesters are structured around specialty subjects, which include all the teaching necessary for the specialty: electrical engineering, electrical grid networks and their protection, production of electrical energy and high voltage, Machine control, power electronics and field theory and finally control, regulation and industrial automation.

* Profiles and skills:

The main objective of this training is to allow students to access a double qualifying diploma. Thus, the holders of this License will have acquired, at the end of this course, the skills necessary to integrate a professional environment in the production, transport, distribution or exploitation of electrical energy. They can just as well, through the theoretical lessons acquired, continue their studies in one of the many existing Masters.

Thus, the Electrical engineering bachelor’s degree gives the student good adaptability to enable him to assert himself in the face of new situations during his career. In this regard, it is able to:

* Understand the physical phenomena related to the transformations and use of electrical energy.
* Define and operate electrical power equipment and associated control systems, to produce energy or operate automation.
* Know the different components of electrical networks and become familiar with the means of control and protection.
* Define the distribution, protection and control equipment, from high voltage to low voltage and their commissioning.
* Understand the real specificities of electrical networks and the means to be implemented for the stability of these networks.
* Master the computer tools specific to the fields of activity of electrical engineering.
* Improve the performance of the electrical engineering systems while listening to its interlocutors.
* Participate in the development of calls for tenders and specifications.
* Adapt to new technological specificities of companies.
* Regional and national employability potential :

All industries today run on electric power and use electric machines.

It is therefore clear that employment opportunities for holders of this bachelor’s degree throughout the national territory are guaranteed, on the one hand.

Furthermore, and taking into account the national guidelines for the development of strategic sectors (the desalination of sea water, the production of electricity and renewable energies), private and/or public investors will certainly begin to operate, in a near future, modern means of electricity production, which bodes well for a flourishing future for graduates of this sector.

In general, the energy sector is still carrier in terms of employability.

Different sectors of activity will manifest a continuous and renewed need for this specialty: the oil and gas industries, refrigeration and air conditioning, food processing and transport, the chemical and plastics industries, the hydraulic industries and paper mills, iron and steel and metallurgical industries, mechanical and cement industries, … and the field of production, distribution and exploitation of electrical energy.

University Official Website :http://www.univ-oeb.dz/fr/

Get more details (email) :[djouambi\_abdelbaki@yahoo.fr](mailto:djouambi_abdelbaki@yahoo.fr" \t "_blank)

Duration Unit :03 years

Duration Type :



Start Month(s) :





Application Deadline :







Fees Currency :



Price Information :الاشارة هنا إلى أن التعليم مجاني إضافة إلى الايواء والاطعام والنقل ويستفيد الطلبة من منحة إضافية

Entry Requirements

Exam Type:



Entry Requirements (Other) :

Example: The minimum baccalaureate rates accepted at Algerian universities are used to establish the rate at which a student must have earned their degree in order to enter the program.

483 words remaining Maximum 512 words

Min Total Tuition Fees (Domestic) : 0

Max Total Tuition Fees (Domestic) : 0

Min Total Tuition Fees (Domestic, In State) : 0

Max Total Tuition Fees (Domestic, In State) : 0

Min Total Tuition Fees (Domestic, Out of State) : 0

Max Total Tuition Fees (Domestic, Out of State) : 0

Min Total Tuition Fees (International) : 0

Max Total Tuition Fees (International) : 0

Minimum Professional Experience (in years) :

Financial Aid

Is there a school sponsored scholarship or financial aid?

  Yes   No

Annual school budget for all scholarships : ……..

Currency :



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Program Statistics

Students per Class : 30

Average age (in years) : 22

Average years of work experience at managerial level :

Percentage of international students :1%

Percentage of women :30 %

Average GMAT score for your cohort :

Average salary after graduation : …………………………………….



Percent employment after graduation : …………… %

Program accreditations :



Average work experience (in years) :

Number of nationalities in current cohort :

Academic License Program Speciality: Electrical engineering

Common Base Science and Technology

*Semester 1*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Mathematics 1 |
| Physics 1 |
| Structure of the material |
| Methodologyteaching unit | TP Physics 1 |
| TP Chemistry 1 |
| Informatics 1 |
| Writingmethodology |
| Discoveryteaching unit | Careers in science and technology 1 |
| Transversal teaching unit | ForeignLanguage 1 (English) |

*Semester 2*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Mathematics 2 |
| Physics 2 |
| Thermodynamics |
| Methodologyteaching unit | TP Physics 2 |
| TP Chemistry 2 |
| Informatics 2 |
| Methodology of the presentation |
| Discoveryteaching unit | Careers in science and technology 2 |
| Transversal teaching unit | ForeignLanguage2 (English) |

*Semester 3*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Mathematics 3 |
| Waves and vibrations |
| Fundamental Electronics 1 |
| FundamentalElectrical Engineering 1 |
| Methodologyteaching unit | Probability and statistics |
| Informatics 3 |
| TP Electronics and Electrical Engineering |
| TP Waves and vibrations |
| Discoveryteaching unit | State of the art in electrical engineering |
| Energy and environment |
| Transversal teaching unit | Technical English |

*Semester 4*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Basic Electrical Engineering 2 |
| Combinatorial logic and sequential logic |
| Numericalmethods |
| Signal theory |
| Methodologyteaching unit | Electrical and and electronic measurements |
| Basic Electrical Engineering 2 |
| TP Numerical Methods |
| TP Combinatorial and Sequential Logic and sequential logic |
| Discoveryteaching unit | Electric power generation |
| Electrical safety |
| Transversal teaching unit | Expression and communication techniques |

*Semester 5*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Electrical Networks |
| Power Electronics |
| Servo Systems |
| Electromagnetic Field Theory |
| Methodologyteaching unit | Electrical Schematics and Switchgear |
| TP Electrical Networks |
| TP Power Electronics |
| TP Servo Systems/ TP Sensors |
| Discoveryteaching unit | Sensors and Metrology |
| Electrical Systems Design |
| Transversal teaching unit | Simulation Software |

*Semester 6*

|  |  |
| --- | --- |
| Teaching unit | Title of the Subject |
| Fundamentalteaching unit | Control of electrical machines |
| Industrial control |
| Industrial Automation |
| Materials and introduction to High Voltage |
| Methodologyteaching unit | End of Cycle Project |
| TP Machine Control |
| TP Industrial Regulation |
| TP Automation/ TP Materials and High Voltage |
| Discoveryteaching unit | Protection of electrical networks  Industrial Maintenance |
| Transversal teaching unit | Professional project and business management |