كلية العلوم بقابس
Faculté des Sciences de Gabès

Faculty of Sciences of Gabes

Realized by:
Students of the LEEA3

Faculty of Sciences of Gabes

Faculty of Sciences of Gabes FSG is a Tunisian faculty founded under Law No. 88-1996 of November 16, 1996. It reports to the University of Gabes.

STATISTICS

2100

Student

181

Teacher

5

Club

TRAINING

LICENCE

- Professional Safety and Industrial and Environmental Security (LSPSIE)
- Earth Sciences [Geo-resources & Environment pathway] (LST-GEOR)
- Life and Earth Sciences (LSVT)
- Life Sciences [Life Sciences & Environment track] (LSVE)
- Life Sciences [Molecular & Cellular Biology track] (LSV-BMC)
- Biotechnology [Biological Analysis and Experimentation pathway] (LBT)
- Sciences de l'Informatique [parcours Génie Logiciels & Systèmes d'Information] (LGLSI)
- Mathematics (LMa)
- Chemistry [Research track] (LChR)
- Chemistry [Materials track] (LChM)
- Electronics, Electrotechnics and Automation (LEEA)
- Physical Measurements and Instrumentation (LMPI)
- Computer Systems Engineering [Computer Networks & Systems Engineering program] (LIRIS)
- Materials Physics

TRAINING

RESEARCH MASTERS

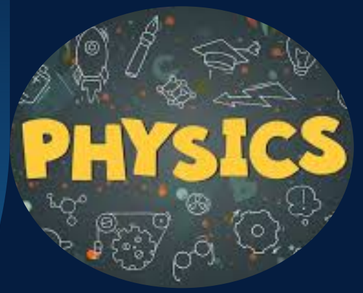
- Geology of Sedimentary Basins (MRGBS)
- Pathogenicity, Virulence of Microorganisms & Anti-infectious Agents (MRPVM)
- Micro-Biologie, Génétique & Bio-ressources (MRMGB)
- Biology of Organisms, Populations & Environment - Animal Ecology (MRBOPE-EA)
- Computer Science & Networks (MRIR)
- Materials Chemistry & Environment (MRCME)
- Materials Chemistry & Environment (MRCME)
- Mathematics (MRMa)

TRAINING

OUR DOCTORAL PROGRAMS

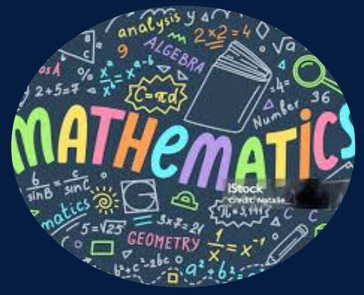
- Doctorates in Chemistry
- Doctorats en Biologie
- Doctorates in mathematics
- Doctorates in physics

01 THE DEPARTMENTS



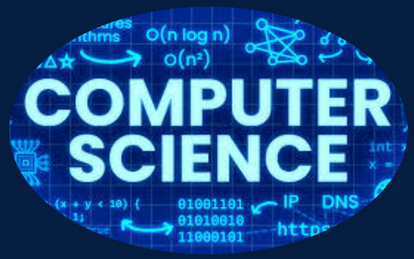
PHYSICS

The physics department of the Faculty of Sciences of Gabes is thus a place of collaboration and creativity, training scientists and innovators capable of meeting the challenges of tomorrow.



MATHEMATICS

The department delivers, in accordance with the LMD system, Bachelor's and Master's degrees in Mathematics.



COMPUTER SCIENCE

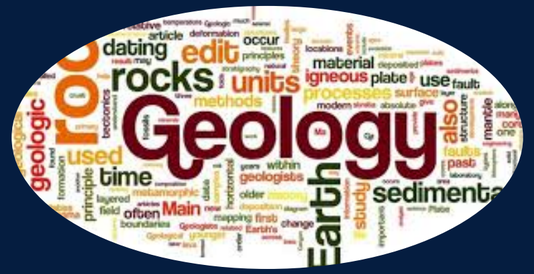
Since the adoption of the architecture of the LMD system (Licenses, Masters, Doctorate), the Computer Science department. within the Faculty of Sciences of Gabès prepares and delivers bachelor's degrees in Computer Science in various specialties

01

THE DEPARTMENTS

BIOLOGY

Biology (from the Greek bios “life” and logos, “discourse”) is the science of life. It covers part of the natural sciences and the natural history of living beings.



GEOLOGY

Geology is the science whose main object of study is the Earth, and more particularly the lithosphere.

CHEMISTRY

Chemistry is an experimental natural science that studies the composition of matter and its transformations.

02

PHYSICS DEPARTMENT

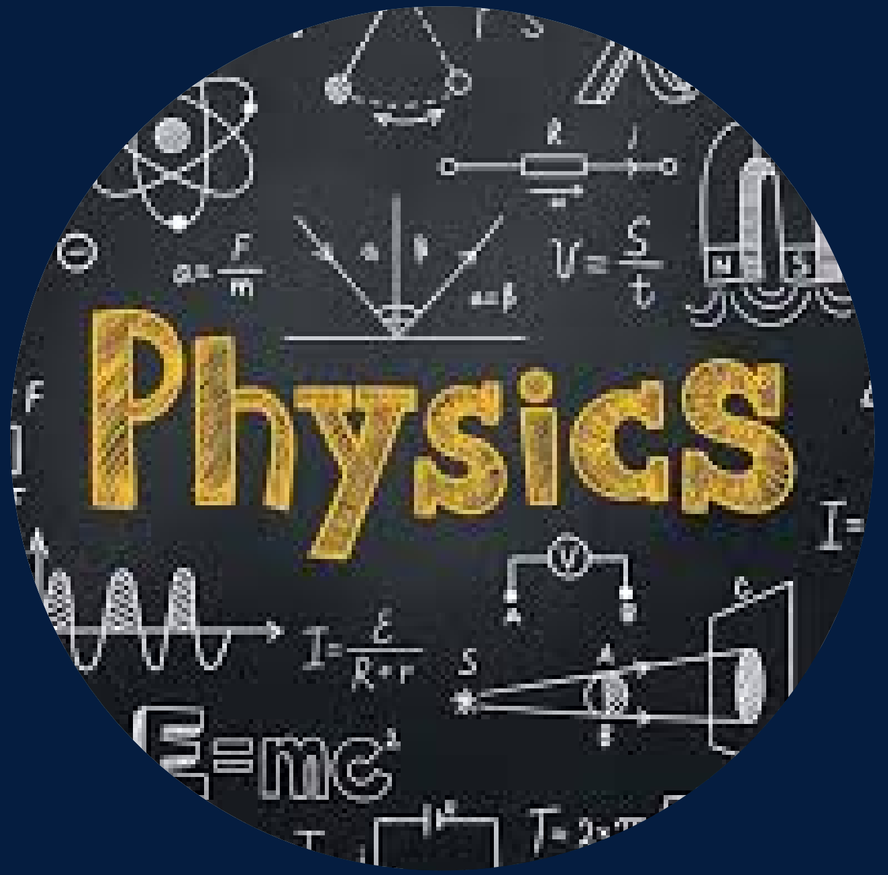
01 Bachelor of Science in Physics

02 Bachelor of Science in
Instrumentation and Measurement

03 Bachelor of Science in Electronics,
Electrotechnics,
and Automation (LEEA)

03 BACHELOR OF SCIENCE IN PHYSICS

This program provides a comprehensive foundation in fundamental physics principles, including mechanics, thermodynamics, electromagnetism, and quantum mechanics. Students develop strong analytical and problem-solving skills through theoretical coursework and practical laboratory experience. Graduates are well-prepared for advanced studies in physics or related fields, such as engineering and research.



04

BACHELOR OF SCIENCE IN INSTRUMENTATION AND MEASUREMENT

This program emphasizes the principles and techniques of measuring physical quantities. Students gain expertise in sensor technology, signal processing, data acquisition, and instrumentation systems. The curriculum blends theoretical understanding with practical application, equipping graduates to work in diverse fields such as industrial process control, environmental monitoring, and scientific research.

05

BACHELOR OF SCIENCE IN ELECTRONICS, ELECTROTECHNICS, AND AUTOMATION (LEEA)

Bachelor of Science in Electronics, Electrotechnics, and Automation (LEEA): This program focuses on the design, implementation, and control of electrical and electronic systems. Students learn about circuit analysis, digital and analog electronics, control systems, and automation technologies. The curriculum combines theoretical knowledge with hands-on projects and laboratory work, preparing graduates for careers in various industries, including manufacturing, telecommunications, and energy

SEMESTER: 1

GENERAL ELECTRICITY

- electrostatic
- mechanical

COMPUTER SCIENCE

- algorithmic and c/c++ programming
- operating systems (linux)

ELECTRONIC

- Electrical circuits
- digital electronics

MATHEMATICS

- algebra
- analysis

TRANSVERSAL

- English
- C2I

SEMESTER: 2

ELECTRONICS

- Digital electronics functions
- Analog electronics

MATHEMATICS

- algebra
- analysis

MAGNETOSTATIC

- magnetostatic
- thermodynamique

COMPUTER SCIENCE

- Advanced Programming
- Databases

TRANSVERSAL

- English
- Mobile technologies

SEMESTER: 3

AUTOMATIC

- Automatic
- Instrumentation and Metrology

ELECTRONICS FOR THE EMBEDDED

- Architecture of Microprocessors and Microcontrollers
- Analog Electronics Functions

SIGNAL PROCESSING

- Analog Signal Processing
- Data transmission

OPTION S3

- Electrical networks and transformers
- Measuring devices and electronic components

TRANSVERSAL

- English
- Communication techniques

SEMESTER: 4

AUTOMATIC

- Programmable Automation and Industrial Local Networks
- Industrial systems: regulation and diagrams

MICRO-COMPUTING

- CAD: Computer Aided Design
- Microcontroller-based systems

ELECTRICAL ENGINEERING AND POWER ELECTRONICS

- Power electronics
- Electronic

OPTION

- RFID technology
- Programmable Circuits and VHDL

TRANSVERSAL

- Business management
- English

SEMESTER: 5

PROCESS CONTROL

- Supervision of industrial processes
- Industrial Sensors

ELECTRICAL SYSTEMS

- Machine control
- Electrical diagram

AUTOMATED SYSTEMS

- Introduction to Robotics
- Real time systems

OPTION

- Renewable energy
- Embedded systems
- Maintenance and protection of electrical equipment

TRANSVERSAL

- English
- Entrepreneurship

06

TECHNICAL SKILLS

- Electronic circuit design (analog and digital).
- . Use of design software such as Eagle, ISIS (Proteus), or Altium Designer.
- . Microcontroller programming (Arduino, ESP32, PIC, STM32).
- . Development of embedded systems for the Internet of Things (IoT).
- . Analysis of electronic signals with oscilloscopes and spectrum analyzers.
- . Design and simulation of filters, amplifiers, and voltage regulators.

. Power electronics: circuits for energy conversion (AC/DC, DC/DC, inverters).

06

PRACTICAL EXPERIENCES

- . Execution of projects such as robots, sensor systems, or IoT systems.
- . Maintenance and troubleshooting of printed circuit boards.
- . Manufacturing of PCB boards.
- Working with communication protocols (I2C, SPI, UART, CAN).

07

SKILLS IN AUTOMATION

- . Mathematical modeling of dynamic systems.
- . Automatic control (PID, LQR, state observers).
- . Programming of industrial programmable controllers (PLC, Siemens TIA Portal).
- . Control and optimization of industrial processes.
- . Programming of robots and autonomous systems.
- . SCADA systems for industrial supervision.
- Simulation and analysis of complex systems with MATLAB/Simulink.

08 END OF STUDIES INTERNSHIP

At the end of the course, the student completes a compulsory internship (agreed), of 4 to 6 months, also called "end-of-studies internship".

09 IMPORTANCE OF THE END-OF-STUDY INTERNSHIP

The internship makes it possible to verify a choice of professional orientation, trade and/or profession because it offers the student an overview of the reality of the profession.

STATISTICS

207

Number of LEEA section students

40

Number of teachers

28

number of LEEA3 section students

THANK YOU

CONTACT US

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