

Internal Regulation of Faculty of Engineering

Chapter One

Faculty Departments and Scientific Degrees

Article (1): Objectives of the Faculty:

The study aims at the Faculty of Engineering, Minia University, to achieve the following objectives:

- 1- Following the continuous development in engineering sciences and technologies
- 2 - Developing the various skills of the faculty graduate, both in terms of engineering studies and human sciences
- 3-Carrying out scientific studies and research in the field of engineering sciences.

- 4-Connecting with society's problems and contributing to its development through training, projects and research.
- 5- Creating a new division to meet the needs of society and the labor market.

Article (2):

Scientific Departments:

The Faculty of Engineering, Minia University, consists of the following scientific departments:

- 1- Architectural Engineering.
- 2- Civil Engineering.
- 3 - Mechanical Power and Energy Engineering.
- 4- Automotive and Tractors Engineering Department.
- 5 Production Engineering and Design.
- 6- Chemical Engineering.
- 7- Electrical Engineering
- 9 - Medical Engineering Department.
- 10 - Petroleum Engineering Department.

Article (3): Academic Courses:

Each department teaches the following courses:

1-Department of Architectural Engineering:

The department teaches the following courses:

Architectural drawing - Architectural Construction - Visuals –
Architectural Design - Architecture theories – Building Construction –
Building physics - Architectural Applications on Computer -

Working Drawings – City Planning – Environment and Climate –
Urban and Regional Planning – Designs- Building Economics-
Architecture History – project –Optional courses in Architectural
Engineering

2- Civil Engineering Department:

The department teaches the following courses:

Geometric projection- Civil Engineering Drawing -
Construction Theory –
Properties and material resistance –Concrete structures – Soil
Mechanics- Metal Structures- Computer applications in Civil
Engineering –Geometric Space- Road Engineering –

Traffic Engineering -Railway Engineering -Health Engineering -
Transportation Engineering- Airport Engineering -Engineering
Management- hydraulic -Irrigation and Agricultural Engineering -
Environmental Engineering- Irrigation and Drainage – Project-
Optional Courses in Civil Engineering

3- Department of Energy and Mechanical Power Engineering:

The department teaches the following courses:

Mechanical Drawing -Thermodynamics -Basics of metrology -
Fluid mechanics -New and Renewable energies- Heat and Mass
transfer- Thermal and hydraulic machines -energy economics -
Power and energy engineering laboratories -Computer applications -
Combustion and its theories -Management of Energy Projects and
Economics -Gas Dynamics - Power Plants - turbine machines- Internal
combustion engines - lubrication engineering - heat exchangers -
Automatic control of power and power systems - computational methods
in power and energy engineering - Flow Machines - Thermal
Engineering - Industrial Security in Power and Energy - Solar and wind
energy - combustion in ovens - energy engineering and environmental
science - Industrial ventilation - project - flow machinery - optional
courses in power and energy engineering.

4- Department of Automotive and Tractors Engineering:

The department teaches the following courses:

Vehicle Design - Vehicle Maintenance - Vehicle Dynamics - Transport Economics - Automatic control - tractors - vehicle theory - vehicle engines - Hydraulic and pneumatic systems in vehicles - electrical and electronic systems in vehicles - Electronic circuits in Automotive - convection by motor vehicles - Computer engineering applications - specialized machines mechanic - specialized mechanical drawing - Basics of metrology - Vehicles and environment - technology of vehicles - optional courses - project.

5- Department of Production and Design Engineering:

The department teaches the following courses:

Engineering Drawing - Mechanical Drawing - Physical Metallurgy - Production Engineering - Machinery mechanics and machine theory - material properties and tests - Machinery Design - Material Resistance - Metrology Basics in Production Engineering - Mechanical vibrations - Industrial organization and factory planning - Engineering statistics and quality control - Production Engineering and Design Laboratory - Technology of plastics and composed materials - formation and operation of metals - Automatic control of production engineering - programmed operating machines - Economics & Research Processes -

Mechanisms & Projects - Test Courses in Production Engineering & Design

6- Department of Chemical Engineering:

The department teaches the following courses:

Basics of Chemical Engineering – Basics of Biochemical Engineering - Chemical Industry Foundations - Basics of thermodynamics - transmission phenomena - fluids and heat transfer - Programming in chemical engineering - Writing scientific reports - Industrial safety - Engineering Chemistry - Specialized Engineering Drawing - Uniform Natural Processes - Pollution and Waste Treatment - Chemical Engineering lab - Inorganic and Thermal Industries Engineering - Electrochemical Engineering and Corrosion - Engineering for Organic Industries - Factories Design Economics - Reactors Design - Biochemical Industry Engineering - Petroleum and Petrochemical Refining Engineering - Metals and Engineering Materials - Chemical Reaction Engineering - Energy Sources and Rationalization - Computer Applications in Chemical Engineering - Optimization and Simulation Applications in Chemical Engineering - Thermodynamics Chemical Engineering - Automatic Control and Process Control in Chemical Engineering - Graduation Project in Chemical Engineering - Optional Courses in Chemical Engineering - Engineering and Technology of plastics.

Electrical Engineering Department:

The Department teaches the following courses:

Electrical Circuit Theory - Electrical Tests - Electrical Field Theory - Technical Electrography - electronics - electrical machines - electrical measurements - Electronic measurements - properties of electrical materials - analysis of electrical power networks - Powerful Electrification - High Voltage Engineering - Communications Systems - Computer applications in electrical engineering - new and renewable energy - Automatic Control - Optimized Performance Methods - Energy Conversion and Use - Industrial electronics - communication theory - digital communications - electronic circuits and design - Digital Circuits and Design - Programming Language Applications in Electrical Engineering - Programmed Logical Controllers - Applications of Software Packages in Electric Footy - Electrical and electronic engineering - project - optional courses in electrical engineering.

- Computer and Systems Engineering Department:

The Department teaches the following courses:

Specialized Drawing - Tests - Artificial Intelligence – Systems- Systems Analysis - Computer Engineering - Computer operating systems - Computer technology - Automatic control - Data Transfer - Software Engineering - Microprocessors - Database Systems - Computer Networks Digital Circuit Computer Control - Robots - Programming Languages - Computer Languages - Distributed Computer Systems - Expertise systems - self-control systems - neural networks - project - optional courses in computer engineering, systems and control.

Chapter Two
Bachelor Degree

Article (4):

Bachelor's degree majors:

Minya University Council, upon the request of the Faculty of Engineering, grants a bachelor's degree in one of the following majors:

1. Architectural Engineering
2. Civil Engineering
3. Mechanical Power and Energy Engineering.
4. Automotive and Tractor Engineering.
5. Production Engineering and Design.
6. Chemical Engineering.
7. Electrical Engineering:
8. Electrical Power Engineering
9. Electronics and Communications.
10. Computer and Systems Engineering

Article (5): Study System:

The duration of study to obtain a bachelor's degree is five academic years by a two-semester system. The study begins with the preparatory year, which is general for all students, followed by four specialized academic years. Students transferred for the first year are distributed to

the majors described in Article (4) of this regulation and according to what is stated in the schedules of academic courses in accordance with the rules determined annually by the Faculty Council, in light of the educational capabilities available in each department.

Article (6):

Training:

The study at the faculty includes a training system under the supervision of the faculty staff members in the relevant department, as follows:

1- Training of drawing and laboratories:

It is for students of the first year in each department for a period of four weeks after the completion of the second semester exams, and his grade is added to the grades of the year's activities for the courses specified in the attached tables. In the event that the training is not performed due to absence without an acceptable excuse, it will be repeated in the following year, and the student's grade shall be calculated without exceeding the maximum acceptable grade.

2- Field training:

It is for students of the second and third years for a month following the exams of the second semester in public establishments and factories. The student is not granted a graduation certificate until after he has completed the training and succeeded in the oral discussion held by the relevant department.

Article (7):

Scientific Trips:

It is for Students of the third and fourth years of all departments under the supervision of faculty members to visit places closely related to the study and the national heritage in accordance with the system decided by the Faculty Council after the proposal of the relevant department council

Article (8):

The Project :

Students of the fourth year prepare a bachelor's project, and the councils of the relevant departments determine its topics, and an additional period is allocated for it after the written exams for the second semester of six weeks for the architecture department and four weeks for the rest of the departments.

The student who fails in the project is registered for repetition, even if he has passed all the courses.

Article (9):

Examinations:

1- G to P examinations, bachelor's examinations and extraordinary examinations are held at the end of each semester in the courses which the student studies in his academic year and in the courses he missed in the previous years, according to the tables attached to these regulations

The student is denied entry to the course examination if he does not achieve an attendance rate of 75%, and that is based on a report from the professor of the course and with the approval of the council of the scientific department to which the student belongs and after the approval of the faculty council. In this case, the student will fail in this course, and one of the chances of entering the examination will be counted on him in this course, only if the student presents an excuse accepted by the Faculty Council, in this case he is considered absent with an acceptable excuse.

3- The courses in which the student failed in any of the semesters in previous years, the examinations are performed at the beginning of the second semester of each year, and the Faculty Council determines the dates for the start of these examinations

Article (10):

Passing to the next year:

1- The student is transferred from the academic year in which he is enrolled to the next academic year if he succeeded in all the courses or was failing or absent in no more than two courses from his academic year or from a previous year, and the student who failed in the courses of humanities and technical languages is allowed to transfer to the next year, in addition to the course or two courses referred to at the beginning of this period

- 2- The student does not obtain a bachelor's degree unless he successfully passes all the basic and non-basic courses.
- 3- Final year students who fail in no more than two basic courses, a second round examination is held for them in the month of November of each year. If their failure is repeated, they will be tested in what they failed with the students of the semester in which this course is taught until they are successful in what they failed in.
- 4- The (two parts) course of mathematics and physics in the preparatory year is considered one course, and the student is considered successful in the course if he succeeded in the total of the two parts of the course. But if the student fails in the total sum of the (two parts) course, he will perform the examination in the part of the course in which he failed.

Article (11):

Success Grades :

- 1- The student's success in courses and in the general grade is estimated by one of the following grade :

Excellent:

More than 85% of the total score.

Very Good:

From 75% to less than 85% of the total score

Good:

From 65% to less than 75% of the total score.

Pass:

From 50% to less than 65% of the total score.

As for the student's failure, it is estimated by one of the following:

Weak:

From 30% to less than 50% of the total score.

Very weak:

Less than 30% of the total score.

- 2-The general grade of students in the bachelor's degree is calculated on the basis of the total number of grades they obtained in all academic

years, and they are arranged according to this total score. The student is granted honors grade if his final grade is excellent or very good, provided that the overall grade in any of the academic years, except for the preparatory year, is not less than very good, and provided that he has not failed in any examination submitted to him in any year except the preparatory year.

Chapter Three

Transitional Provisions

Article (12):

Application of the Regulations :

The provisions of this regulation shall be applied to students enrolled in the preparatory year and the first year, and those remaining for repetition when they are applied in the academic year that begins after the issuance of the ministerial decision regarding the regulation and its application proceeds sequentially to freshmen and those who are remaining for repetition until it is gradually circulated to all faculty students

Article (13):

Transition

During transition of starting the application of this regulation, the following shall be taken into account:

- 1- When calculating the final grade for the bachelor's degree, the cumulative total is calculated as the maximum score for each year in which the student was previously examined before applying this regulation in proportion to the maximum end of the total score of the academic year in this regulations (1500 marks).
- 2- The grades of the year's activities are attributed to the students who are behind in one of the articles of the regulation (proportionately) with respect to the maximum end for the degree of the year's activities in this regulation

3- The courses that its name are changed without changing the content in the new regulations are completely equivalent to the existing courses with the same content in the previous regulation, and the scientific departments are concerned with determining the courses of the new regulation equivalent to the courses of the previous regulation.

Chapter Four

Code System of Courses

Article (14):

Code System of Courses:

A-The attached tables show the courses for the different departments, including the number of academic hours assigned to lectures, exercises, scientific lessons, the number of hours of the written exam, and the grades allocated to the exercises, practical, as well as oral and written examinations for the two semesters.

B - In each academic year, each department determines the test courses taught during the year from the list of the optional courses of the department according to the academic schedules in this course, and that this is announced before the beginning of the academic year.

C - Courses are numbered according to the following system:

Numbers refers to the course			Letters refers to the department		
Year	Semester	Course rank			

Where the letters refer to the following departments:

Electrical Engineering:	E E E E P	Human Sciences	H S
Electrical Power Electronics	E E E	Basic Sciences	B S
		Architectural Engineering	A E
Production, Design and civil Engineering	PDC	Civil Engineering	C E
Computers and Systems Engineering	CS	Power and Energy Engineering	P E
Human Sciences for the department that begins with the letter (x)	HSX	Automotive and Tractors Engineering	AT

Basic Sciences for the department that begins with the letter (x)	BSX	Production and Design Engineering	PD
Chemical Engineering-			CE



