



# **ANNEX 1.1**

# DEGREE PROGRAM DIDACTIC REGULATIONS MANAGEMENT ENGINEERING

## CLASS L-9

**School: Polytechnic University of Basic Sciences** 

**Department: Industrial Engineering** 

Didactic Regulations in force since the academic year 2025 -2026

# **STUDY PLAN**

**KEY** 

#### Type of Educational Activity (TAF):

A = Basic

**B** = Characterising

**C** = Related or Supplementary

**D** = At the student's choice

**E** = Final examination and language knowledge

**F** = Further training activities

## Year I

#### I semester

Title Course	SSD	Module	Credits	Hours	Type Activities (lectures, workshop s, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory/ optional
Mathematical Analysis I	MAT/0 5	single	9	72	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory
Geometry and Algebra	MAT/0 3	single	6	48	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory
Elements of Computer Science	ING- INF/05	single	6	48	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory
English Language		single	3	24	Frontal lesson	In-presence	E	Language Knowledge	Mandatory

II semester												
Title Course	SSD	Module	Credits	Hours	Type Activities (lectures, workshop s, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory/ optional			
Mathematical Analysis II	MAT/0 5	single	9	72	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory			
Chemistry	CHIM/ 07	single	9	72	Frontal lesson	In-presence	Α	Physiscs and Chemistry	Mandatory			
Industrial technical drawing	ING- IND/15	single	6	48	Frontal lesson	In-presence	В	Mechanical Engineering	Mandatory			
General Physics I	FIS/01	single	6	48	Frontal lesson	In-presence	Α	Physiscs and Chemistry	Mandatory			

## Year II

Chemistry

#### I semester

Title Course	SSD	Module	Credits	Hours	Type Activities (lectures, workshop s, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory/ optional
General Physics II	FIS/01	single	6	48	Frontal lesson	In-presence	А	Physiscs and Chemistry	Mandatory
Technical Physics	ING- IND/10	single	9	72	Frontal lesson	In-presence	С	Energy Engineering	Mandatory
Plants for the process industry	ING- IND/25	single	9	72	Frontal lesson	In-presence	С	Chemical Engineering	Mandatory

## II semester

Title Course	SSD	Module	Credits	Hours	Type Activities (lectures, workshop s, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory/ optional
Principles of Economics	ING- IND/35	single	9	72	Frontal lesson	In-presence	В	Management Engineering	Mandatory
Electromagnetism and Electrotechnics	ING- IND/31	single	6	48	Frontal lesson	In-presence	В	Electrical Engineering	Mandatory
Mechanics Applied to Machines	ING- IND/13	single	9	72	Frontal lesson	In-presence	С	Mechanical Engineering	Mandatory
Operations Research	MAT/0 9	single	9	72	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory

# Year III

#### I semester

Title Course	SSD	Module	Credits	Hours	Type Activiti es (lecture s, worksh ops, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory / optional
Business Management	ING- IND/35	single	9	72	Frontal lesson	In-presence	В	Management Engineering	Mandatory
Industrial Logistics	ING- IND/17	single	9	72	Frontal lesson	In-presence	В	Management Engineering	Mandatory
Probability and Statistics	SECS- S/02	single	9	72	Frontal lesson	In-presence	А	Mathematics, Informatics, and Statistics	Mandatory
Mechanical Technology	ING- IND/16	single	9	72	Frontal lesson	In-presence	В	Management Engineering	Mandatory

## II semester

Title Course	SSD	Module	Credits	Hours	Type Activiti es (lecture s, worksh ops, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area	Mandatory / optional
Business Organization	ING- IND/35	single	9	72	Frontal lesson	In-presence	В	Management Engineering	Mandatory
At the student choice (a)			18	144	Frontal lesson	In-presence	D	At the student choice	Mandatory (at choice of students, 2 or more exams)
Further Training Activities (b)			3	24	-	In-presence or by distance	F	Further Training Activities	Obbligatorio
Final Examination			3	24	-	In-presence	E	Final Examination	Obbligatorio

Tab. A List of training activities suggested for the student choice

Title Course	SSD	Module	Cred its	Hours	Type Activities (lectures, workshops, etc.)	Course Modalities (in-person, by distance)	TAF	Disciplinary area
DataBases	ING- INF/0 5	single	9	72	Frontal lesson	In-presence	D	Mathematics, Informatics, and Statistics
Sustainable Chemistry and Industrial Safety Module I – Sustainable Chemistry for Circular Economy	CHIM /07	Module I	5	40	Frontal lesson	In-presence	D	Chemical Engineering
Sustainable Chemistry and Industrial Safety Modulo II – Risk Analysis and Management in the Process Industry	ING- IND/2 7	Module II	4	32	Frontal lesson	In-presence	D	Chemical Engineering
Corporate and industrial appraisal	ICAR/ 22	single	9	72	Frontal lesson	In-presence	D	Civil Engineering- Architecture
Mathematical physics	MAT/ 07	single	9	72	Frontal lesson	In-presence	D	Mathematics, Informatics, and Statistics
Fundamentals and Management of the Fluid Machinery and Power Systems	ING- IND/0 8	single	9	72	Frontal lesson	In-presence	D	Mechanical Engineering
Fundamentals of law for Engineers	IUS/0 1	single	9	72	Frontal lesson	In-presence	D	Low sciences
Fundamentals of transport systems engineering	ICAR/ 05	single	9	72	Frontal lesson	In-presence	D	Civil Engineering- Architecture
Smart Production Systems	ING- IND/1 7	single	9	72	Frontal lesson	In-presence	D	Management Engineering
Heat Transfer	ING- IND/1 0	single	9	72	Frontal lesson	In-presence	D	Energy Engineering

(a) In the case where the 18 credits "at the student choice" are obtained by selecting courses listed in Table A, the student is not required to submit a Study Plan. Otherwise, the student must submit an Individual Study Plan, which will be subject to approval by the Degree Program Committee to verify the consistency of the student's choices with the educational program. The credits for "at the student choice" can be obtained during the third year, either in the first or second semester, depending on the timing of the chosen exam.

(b) The assessment of Further Training Activities is certified by the Coordinator of the Degree Coordination Committee (CCD) based on the attendance certificate issued by the faculty responsible for the initiatives, upon successful participation in seminar cycles or other educational activities. It may also be certified through attendance of specific courses organized by the University to provide students with additional linguistic knowledge, IT and telecommunication skills, interpersonal skills, or other competencies useful for entering the job market. These courses may include the issuance of digital certifications through open badges or participation in Team Working initiatives.

#### List of propaedeuticities

- Mathematical Analysis I for: Mathematical Analysis II, Technical Physics, Principles of Economics, Operations Research, Probability and Statistics;
- Geometry and Algebra for: Operations Research;
- General Physics I for: General Physics II, Applied Mechanics to Machines;
- Mathematical Analysis II for: Electrical Engineering, Applied Mechanics to Machines;
- Chemistry for: Plants for the Process Industry