



Petroleum-Gas University of Ploiesti ROMANIA

Educational offer

Ploiesti, 2021



HISTORY

DISCOVER WHO WE ARE...



Located in Ploiesti, the economic, cultural and social center of Prahova county, the Petroleum-Gas University has become the intellectual core of the city. Its evolution has pursued the scientific, economic and social changes, trying continually to offer its students the best opportunities to learn and grow to meet the demands of their future.

1948 Foundation in Bucharest under the name of the Petroleum and Gas Institute (PGI) with two faculties.

1950 New faculties added

1957 Changing of name into the Petroleum, Gas and Geology Institute (PGGI) of Bucharest.

1967-1974 The PGGI of Bucharest was transferred to Ploiești under the name of the Petroleum and Gas Institute (PGI)

1968-1982 Post-graduate UNESCO courses were organized in English in Petrochemistry

1992 The PGI changed its name into the University of Ploiești and included a new faculty, the Faculty of Letters and Sciences.



HISTORY

DISCOVER WHO WE ARE...



1993 The name of the university changed back to Petroleum-Gas University

1994 Master's degree for Mechanical, Petroleum and Chemical Engineering, Post-Graduate Academic Studies School in Petroleum.

1995 Post-graduate MBA courses (join venture with French partners)

2002 PGU included among its faculties the Faculty of Economic Sciences, formed by separation from the original Faculty of Letters and Sciences.

2005 Implementation of the Bologna process



Petroleum-Gas University in figures

2382
2516
7416
1.589
13266

FACULTY OF PETROLEUM- GAS ENGINEERING

1140 students

3 departments

FACULTY OF MECHANICAL AND ELECTRICAL ENGINEERING

1309 students

2 departments

FACULTY OF PETROLEUM REFINING AND PETROCHEMISTRY

829 students

2 departments

FACULTY OF LETTERS AND SCIENCES

1295 students

3 departments

FACULTY OF ECONOMIC SCIENCES

1188 students

2 departments

TEACHERS'TRAINING DEPARTMENT



0 500 km
Karte J. D. Mueller



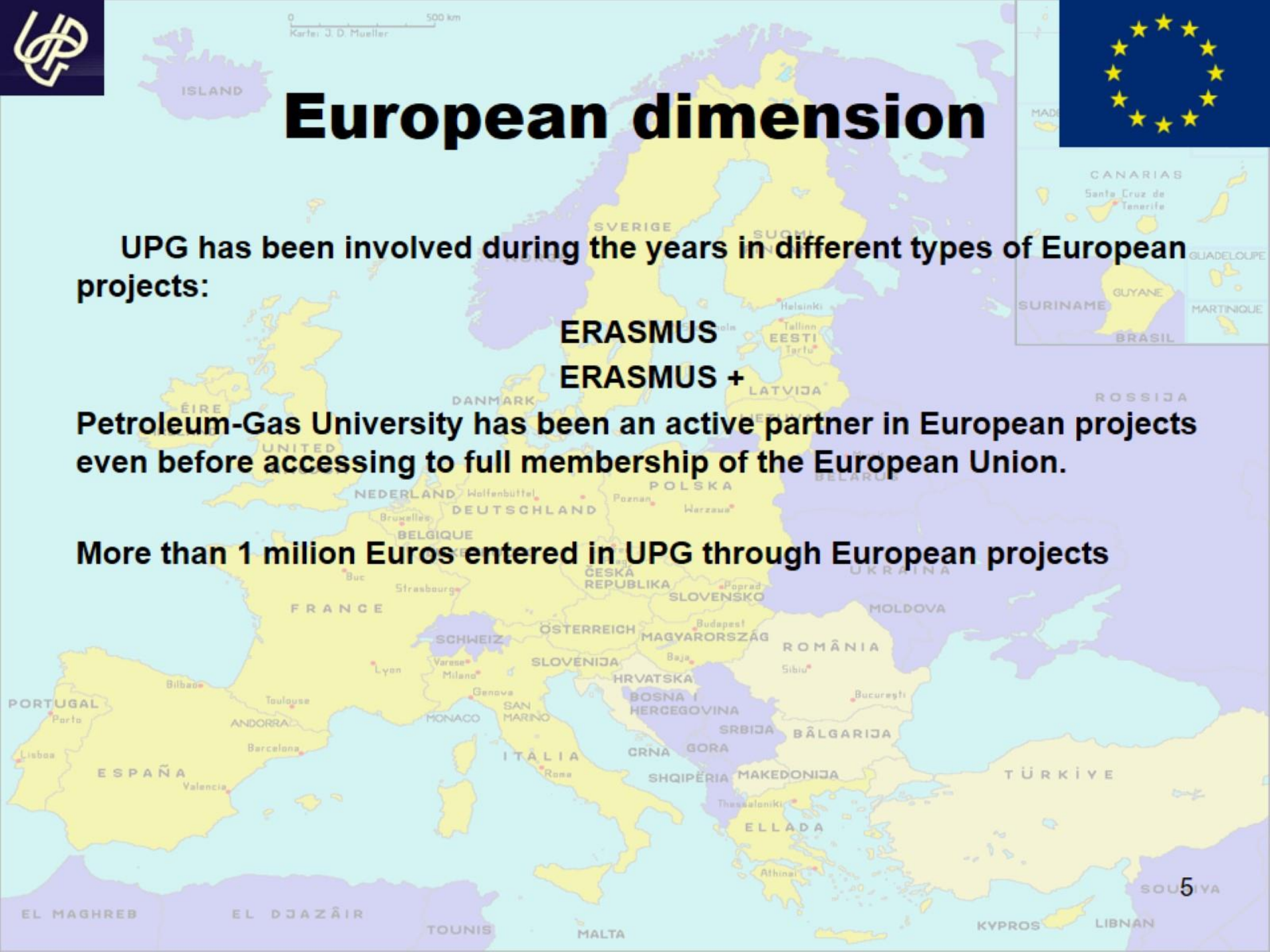
European dimension

UPG has been involved during the years in different types of European projects:

**ERASMUS
ERASMUS +**

Petroleum-Gas University has been an active partner in European projects even before accessing to full membership of the European Union.

More than 1 million Euros entered in UPG through European projects





0 500 km
Karte: J. D. Mueller

ISLAND

The Bologna process

Priorities and fields of action

Bologna, June 19th, 1999

- 1. Adoption of a system of easily readable and comparable degrees**
- 2. Adoption of a system essentially based on two cycles**
- 3. Establishment of a system of credits**
- 4. Promotion of mobility**
- 5. Promotion of European co-operation in quality assurance**
- 6. Promotion of the European dimension in higher education**

Prague, May 19th, 2001

- 7. Lifelong learning**
- 8. Higher education institutions and students**
- 9. Promoting the attractiveness of the European Higher Education Area**

Berlin, September 19th, 2003

- 10. Doctoral level (third cycle) included in the Bologna process**



Faculty of Petroleum and Gas Engineering - structure and research

DEPARTMENTS:

- 1. Drilling Wells, Production and Transport of Hydrocarbons**
- 2. Petroleum Geology and Reservoir Engineering**
- 3. Motor Sciences and Sport**

RESEARCH FIELDS:

Oil and gas exploitation

Applied geophysics

Fluid distribution

Drilling

Gas production and underground storage

Thermoenergetics, heat transfer

Fluid transportation

Reservoirs engineering

Oil reservoirs geology



Faculty of Petroleum and Gas Engineering

The Faculty of Petroleum Engineering was founded in 1948 under the name of Drilling and Production Faculty.

Bachelor's degree (4 years)

with training programs in the following fields [F] and specializations [S]:

MINES-OIL-GAS [F]

Oil and Gas Engineering [S]

Hydrocarbons Transportation, Storage and Distribution [S]

GEOLOGY ENGINEERING [F]

Engineering of Petroleum Resources Geology [S]

Open and distance learning (4 years) program:

Petroleum and Gas Engineering [S]



Faculty of Petroleum and Gas Engineering

The Faculty of Petroleum Engineering was founded in 1948 under the name of Drilling and Production Faculty.

Master's degree (1.5 years)

Petroleum Geology [S]

Well Drilling [S]

Oil Production [S]

Reservoir Engineering [S]

Technology of Hydrocarbons Transportation and Distribution Systems [S]

Management in the Petroleum Industry [S]

Doctoral studies (3 years)

Mines, Petroleum and Gas



Faculty of Petroleum and Gas Engineering

International study program

Master Study Program

Master's degree (2 years)

Petroleum Engineering (English) [S]

The purpose of the program is to produce candidates on the master level, for the international natural gas industry, who have both theoretical and practical knowledge on the highest possible level in combination with abilities for continuous and life-long learning.

The PE - master is a 2 year program of 120 ECTS.



Faculty of Petroleum and Gas Engineering

The Faculty of Petroleum Engineering was founded in 1948 under the name of Drilling and Production Faculty.

Graduates' fields of competence and abilities: PETROLEUM:

- well drilling
- fluid production (oil, natural gas, drinking water; industrial, mineral and thermal waters)
- reservoir engineering
- research, designing and exploitation of transport fluid systems
- geotechnical projects in civil and industrial engineering

PETROLEUM GEOLOGY:

- petroleum geology, geological and geophysical investigation in the oil well
- geological and geophysical survey
- reservoir characterization
- hydrogeology
- design of exploitation of useful deposits of mineral, fluid and solid substances
- engineering geology



Faculty of Petroleum and Gas Engineering - partners

OMV – PETROM

SCHLUMBERGER

WEATHERFORD

TRANSOCEAN CORPORATION

BAKER HUGHES

M.I. SWAKO

HALIBURTON

CAMERON

PROCTER & GABMLE

ROMGAZ

TRANSGAZ

ROMPETROL

CONPET

E.ON GAZ

TENARIS

AMROMCO

DEPOGAZ

ENGIE



Laboratories refurbishment (including equipment)

Students grants

Training programs

Summer training



Faculty of Mechanical and Electrical Engineering

Founded in 1950, the Faculty of Petroleum Machines and Equipment, was later on named the Faculty of Technological Equipment and then the Faculty of Mechanical and Electrical Engineering.

Bachelor's degree (4 years)

with training programs in the following fields [F] and specializations [S]:

MECHANICAL ENGINEERING [F]

Petroleum and Petrochemical Equipment [S]

Hydrocarbon Transportation and Storage Equipment [S]

ELECTRICAL ENGINEERING [F]

Electromechanics [S]

ELECTRONICAL ENGINEERING AND TELECOMMUNICATION [F]

Applied Electronics [S]

SYSTEMS ENGINEERING [F]

Automatics and Applied Informatics [S]

COMPUTERS AND INFORMATION TECHNOLOGY [F]

Computers [S]

ENGINEERING AND MANAGEMENT [F]

Economic Engineering in Mechanical Field [S]

IME



Faculty of Mechanical and Electrical Engineering

Open and distance learning (4 years):

ENGINEERING AND MANAGEMENT [F]
Economic Engineering in Mechanical Field [S]

SYSTEMS ENGINEERING [F]
Automatics and Applied Informatics [S]

Master's degree (1,5 years)

Risk Management and Engineering Reliability of Petroleum and Petrochemical Equipment

Engineering Optimal Exploitation of Oilfield Equipment

Hydrocarbon Transport and Storage Systems Engineering

Advanced Control

Management and Production Engineering Equipment Oil and Petrochemical

IME



Faculty of Mechanical and Electrical Engineering

Doctoral studies

Mechanical engineering

Systems engineering

IME



Faculty of Mechanical and Electrical Engineering

Graduates' fields of competence and abilities

- research, design and construction of technological equipment for drilling-production, refineries and petrochemical plants and petroleum transportation and storage;
- research, design and construction of electrical and electronical industrial installation, automation and measurement electronic equipment, electric drive control equipment and automation equipment;
- research and design of technological installation and equipment reconditioning, assembling and manufacturing technologies;
- maintenance, management, manufacturing of equipment and technological plants in oil industry;
- industrial processes monitorization and automatic control in the oil industry, chemical and petrochemical industry, power industry and machine building industry)

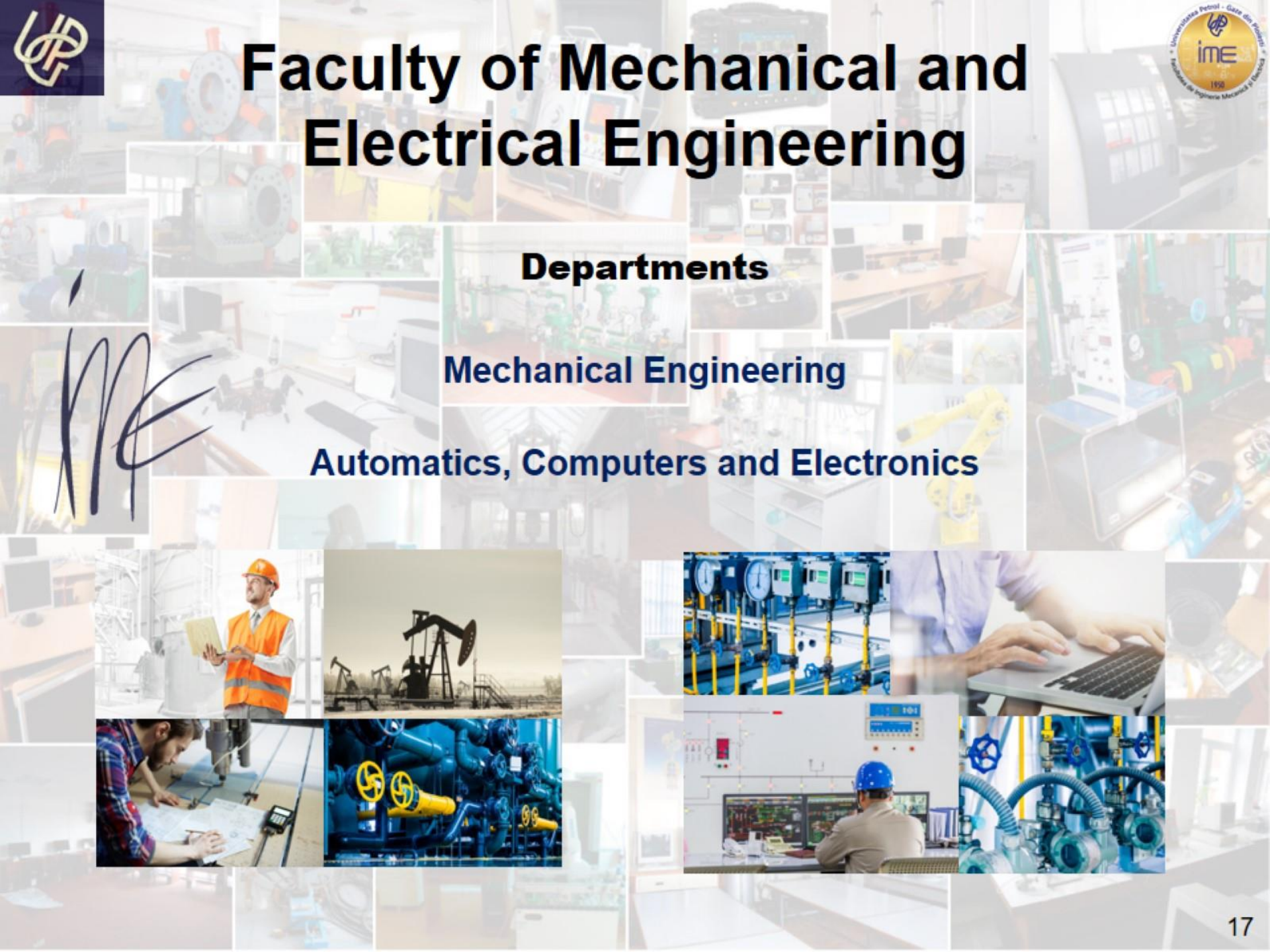


Faculty of Mechanical and Electrical Engineering

Departments

Mechanical Engineering

Automatics, Computers and Electronics





Faculty of Mechanical and Electrical Engineering

Research Centres

- Center for professional training and consulting in oil management and technologies – CEMATEP
- Regional Center for Determining Performance and Monitoring the Technical Condition of Tubular Material Used in the Oil Industry – CRDPMTP
- Destructive Testing Laboratory - LED
- Research Centre of Reliability, Diagnosis and Technical Safety of Petroleum and Petrochemical Equipment
- Research Centre of Strength, Stability, Dynamics and Durability of Structures from Petroleum and Petrochemical Equipment
- Research Centre of Advanced Automatic Control in Chemical Processes
- Second Degree Testing Laboratory authorized by ICPLUAT, Prahova district
- Electronics-Electrotechnics Department Research Center



Faculty of Mechanical and Electrical Engineering

Research Fields

Modern methods for the design and construction of petroleum and petrochemical equipment. Computer aided design of petroleum and petrochemical equipment. Optimization and monitoring of working processes in drilling/production. Optimal maintenance of petroleum equipment. Applied research in the fields of reliability and technical hazard. Petroleum and petrochemical reconditioning technologies. Durability and reliability of equipment and tools for drilling and production. Fundamental research and experiments in the field of digital computers (basic elements, structures, architectures). Basic research related to operating systems.



Faculty of Mechanical and Electrical Engineering

Research Fields

Artificial Intelligence. Process control. Process modelling and simulation. Measurement of industrial parameters. Modelling and simulation of chemical processes. Design of automatic systems for chemical processes. Training activities for refineries distributed control systems operation. Training activities for Honeywell distributed systems configuration. Robotics and Computer Vision. Studies regarding renewable power source. Data transmission security. Electric drives, electric machines, power electronics, power engineering, parameter monitoring.

IME



Faculty of Mechanical and Electrical Engineering

Partners

GDF SVEZ

e-on



EMIROM

SICK
Sensor Intelligence.

TRANSGAZ

christof JCRc
Engineering & Consulting S.R.L.

CONPET

LUK LUKOIL
OIL COMPANY

OMV Petrom

Weatherford

INSPET SA
PLOIESTI

Kraftanlagen
Romania

DUCTIL

CAMERON

P&G Urлаți

ELETTRA
Communications
A Finmeccanica Company

ipip

VEOLIA

Coca-Cola
Hellenic
Innovation & Excellence

ACTEMIUM

GRAFEX

POLITEH S.A.
polyethylene packages supplier

IME



Faculty of Petroleum Refining and Petrochemistry

Founded in 1948, the Faculty of Petroleum Refining and Petrochemistry was transferred to Ploiești in 1975.

Bachelor of Engineering degree (BEng) – 4 years

CHEMICAL ENGINEERING [F]

Petroleum Processing and Petrochemistry (in RO and EN) [S]

Chemical and Biochemical Processes Informatics and Engineering [S]

Food Control and Security [S]

ENVIRONMENTAL ENGINEERING [F]

Environmental Engineering and Protection in Industry [S]



Faculty of Petroleum Refining and Petrochemistry

Master of Engineering (MEng) -1.5 years

CHEMICAL ENGINEERING [F]

Advanced Technologies for Petroleum Processing [S]

Computer Aided Chemical Engineering Applied in Refineries and Petrochemistry [S]

Chemical Engineering for Refineries and Petrochemistry [S] (EN)

ENVIRONMENTAL ENGINEERING [F]

Advanced Technologies in Environmental Protection Engineering [S] - 1.5 years

Monitoring of Environmental Agents and Products Quality [S] - 2 years

Doctoral studies (PhD) - 3 years

Chemical Engineering



Faculty of Petroleum Refining and Petrochemistry

Graduates' fields of competence and abilities:

Petroleum Processing

Petrochemistry

Environmental Engineering

Plants design for Refineries and Petrochemistry

Computer Aided Process Design, Simulation and Integration



Faculty of Petroleum Refining and Petrochemistry Structure and Research

Departments:

Chemistry

Petroleum Processing Engineering and Environmental Protection

Research fields:

- **Technological analysis in the field of thermal and catalytic processes**
- **Design for oil processing industry and environmental engineering**
- **Improving the properties of mineral and blended oils and waxes**
- **Synthesis of catalytic, nanostructured and composite materials with applications in the oil and petrochemical industry**
- **Hydrogen obtaining by steam reforming and hydrocarbons obtaining from synthetic gas**
- **Study of phase equilibriums in fluid systems**
- **Air, soil and water depollution by physical and chemical methods**
- **Wastes and byproducts valorization**
- **Thermal energy analysis, thermal energy balances**
- **Pinch analysis and optimization of operating regimes for technological installations**
- **Green chemistry**
- **Food qualities research**



Faculty of Petroleum Refining and Petrochemistry- partners

OMV - PETROM

PETROTEL - LUKOIL

KAZMUNAYGAS ROMPETROL

PROCESS ENGINEERING

TÜV România

ICECHIM

CONPET

SAIPEM

IPIP - KRAFTANLAGEN

OLTCHIM

PETRODESIGN

SWISS CAPS România

PROCTER & GAMBLE

LUBRICHEM

OIL TERMINAL

ROMGAZ



Faculty of Letters and Sciences

The Faculty of Letters and Sciences was founded in 1992 as a result of the necessity to enrich the academic offer of the university

Bachelor of Sciences degree (Bsc) – 3 years

MATHEMATICS [F] / Mathematics [S]

INFORMATICS [F] / Informatics [S]

PHYSICS [F] / Physics [S]

CHEMISTRY [F] / Chemistry [S]

Bachelor of Arts degree (Ba) – 3 years

LANGUAGE AND LITERATURE [F]

Romanian language and literature and English language and literature [S]

English language and literature and French language and literature [S]

Bachelor degree – 3 years

ADMINISTRATIVE SCIENCES [F]

Public Administration [S]

Management assistance and office administration [S]

EDUCATION SCIENCES [F]

Pedagogy [S]

Pedagogy of primary and pre-school education [S]



Faculty of Letters and Sciences

The Faculty of Letters and Sciences was founded in 1992 as a result of the necessity to enrich the academic offer of the university

Open and distance learning and part-time learning – Bachelor degree 3 years

**Romanian language and literature and English language and literature [S]
Pedagogy of primary and pre-school education [S]**

Postgraduate programs

Management and strategy in administration – 1.5 years

Doctoral studies (PhD)

Chemistry

Duration: 4 years full-time courses, 6 years part-time courses.



Faculty of Letters and Sciences

The Faculty of Letters and Sciences was founded in 1992 as a result of the necessity to enrich the academic offer of the university

Graduates' fields of competence and abilities:

Teaching Romanian language and literature,
English language and literature,
French language and literature,
Chemistry,
Informatics and Mathematics,
at elementary school, high school and university
levels

Solving research problems in their area of expertise



Faculty of Letters and Sciences structure and research

Departments:

Informatics

Mathematics

Philology

Foreign languages and literatures

Law and socio-humanistic sciences

Physics

Research fields:

**Law, mathematics, informatics, literature, cultural studies, theoretical and
applied linguistic**



Faculty of Economic Sciences

The Faculty of Economic Sciences was founded in 2002 as a necessity imposed by the natural growing of the number of students in the field of the economic studies. The Faculty of Economic Sciences provides significant opportunities to the students specializing in economics.

Bachelor Programmes – 3 years

BUSINESS ADMINISTRATION [F]

Science of commodities and quality management [S]

Economy of commerce, tourism and services [S]

FINANCE [F]

Finance and banking [S]

ACCOUNTING [F]

Accounting and management information system [S]

CYBERNETICS, STATISTICS AND ECONOMIC INFORMATICS [F]

Economic informatics [S]

MANAGEMENT [F]

Management [S]

Bachelor Programmes - Open and distance learning – 3 years

Accounting and management information system [S]

Management [S]



Faculty of Economic Sciences

Master Programmes – 2 years

BUSINESS ADMINISTRATION [F]

Administration and financing of development projects [S]

Business administration in petroleum and gas industry [S]

Strategies in international business [S]

ACCOUNTING [F]

Accounting, taxation and audit [S]

MANAGEMENT [F]

Management of microeconomic systems [S]

Management of public sector [S]

Management of banking system [S]

ECONOMIC INFORMATICS [F]

Information technologies for business [S]



Faculty of Economic Sciences

The Faculty of Economic Sciences has programs whose main targets are:

- To develop competences correlated with the labour market requirements;
- To provide free access to economic informatics laboratories equipped with up-to-date facilities;
- To provide access to library and to sport facilities.

Graduates' field of competence and abilities:

Graduates can apply for jobs such as:

- ☐ financial officers
- ☐ accountants
- ☐ programmers
- ☐ database administrators, ITC
- ☐ security consultants
- ☐ banking officers
- ☐ tourism managers
- ☐ quality management experts etc.



Faculty of Economic Sciences structure and research

Departments:

Business Administration

Cybernetics, Economic Informatics, Finance and Accounting

Scientific activity:

☐ **The academic staff conducts research at the highest international level, being interested in offering an exceptional education to all students, in order to prepare them for a successful career in the public, non-private or private sector.**

☐ **Main scientific fields:**

- **Business administration**
- **Business ethics and CSR**
- **Accounting**
- **Management**
- **Artificial intelligence, big data**



Faculty of Economic Sciences structure and research

Economic Insights - Trends and Challenges

- ❑ The journal “*Economic Insights - Trends and Challenges*” is being published since 1998;
- ❑ 4 issues/year;
- Since 2008, the journal has been indexed in several international databases like:
 - EconLit
 - DOAJ
 - EBSCO
 - Cabell's
 - ProQuest and
 - Ulrich's.



Faculty of Economic Sciences

Non-formal educational activities

Celebrating Europe Day





Faculty of Economic Sciences

Non-formal educational activities

UniverCity Festival





Teachers Training Department

The Teacher Training Department is an accredited institution that ensures the psycho-pedagogic and methodology training for graduates who want to become teachers; it has functioned at the Petroleum Gas University from Ploiesti since 1998.

Initial and Continuous Education:

- Training courses for the basic degrees in education (certificate for the basic degree in education);
- Training courses for the II degree in education (certificate for the II degree in education);
- Training courses for the I degree in education (certificate for the I degree in education);

Postgraduate courses:

- Teaching certificate for elementary, secondary and academic education (graduation certificate).



Teacher Training Department

The Teacher Training Department is an accredited institution that ensures the psycho-pedagogic and methodological training for graduates who want to become teachers/trainers/instructors; it has functioned at the Petroleum Gas University from Ploiesti since 1998.

Studies:

- Initial Education (Graduation Certificate):
- Education psychology
- Elements of pedagogy
- Theory and methodology of teaching
- Education management
- Classroom management
- Teaching methodology for specialties
- Teaching practice