

# Petroleum-Gas University of Ploiesti ROMANIA

**EDUCATIONAL OFFER** 

Ploiești, 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 Ploieşti 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 Ploieşti 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

**FACULTY OF PETROLEUM- GAS ENGINEERING** 

942 students

3 departments

**FACULTY OF MECHANICAL AND ELECTRICAL ENGINEERING** 

1104 students

2 departments

**FACULTY OF PETROLEUM REFINING AND PETROCHEMISTRY** 

450 students

2 departments

**FACULTY OF LETTERS AND SCIENCES** 

1293 students

3 departments

**FACULTY OF ECONOMIC SCIENCES** 

1722 students

2 departments

TEACHERS'TRAINING DEPARTMENT



**European dimension** 



CANARIAS Santa Eruz de Tenerife

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

**ERASMUS + , EEA and Norway Grants.** 

In line with the strategic priorities of the Digital Education Action Plan (2021-2027), the Erasmus + Programme aims to support this endeavour to engage learners, educators, youth workers, young people and organisations in the path to digital transformation.

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

More than 2.5 milion Euros entered in UPG through European projects.

PORTUGAL

Toulouse

ANDORRA

Baila

Sibiu

HRVATSKA

BOSNA

HERCEGOVINA

SRBIJA

BÂLGARIJA

CRNA

GORA

SRBIJA

BÂLGARIJA

CRNA

SHQIPËRIA MAKEDONIJA

Thessaloniki

Thessaloniki

ELLADA

sou5IYA



### 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

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### 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



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]** 



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



### 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.



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 & GAMBLE** 

**ROMGAZ** 

**TRANSGAZ** 

**ROMPETROL** 

**CONPET** 

**E.ON GAZ** 

**TENARIS** 

**AMROMCO** 

**DEPOGAZ** 

**ENGIE** 

Laboratories (including equipment)

**Students grants** 

**Training programs** 

**Summer training** 





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 ing Mechanica Field [S]** 





Open and distance learning (4 years):

**ENGINEERING AND MANAGEMENT [F] Economic Engineering ing Mechanical Field [S]** 

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

Master's degree (1,5 years)

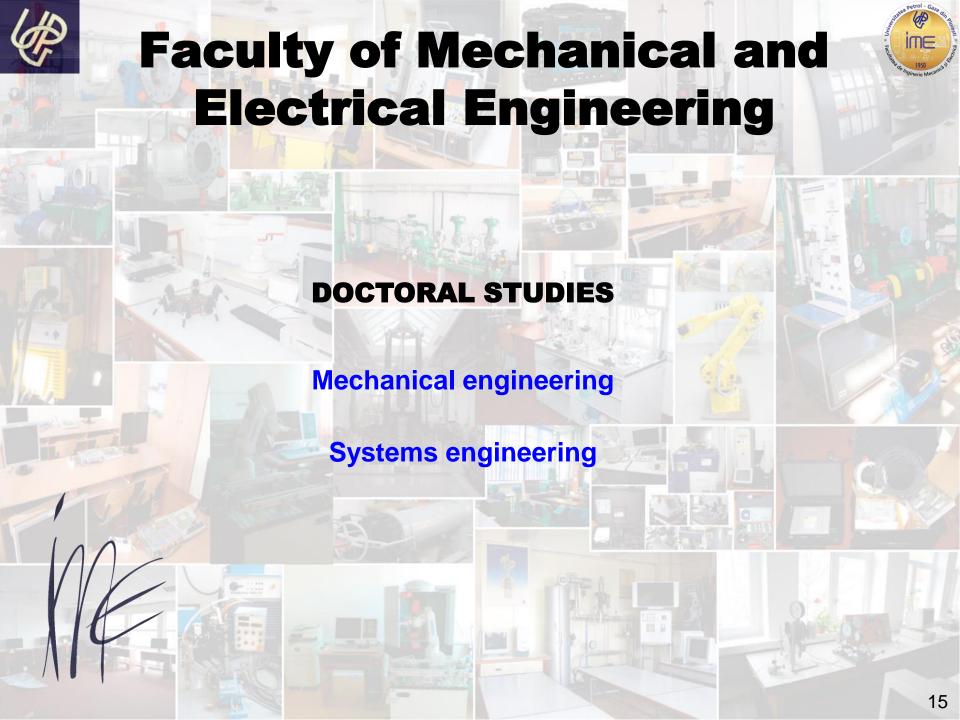
Risk Management and Engineering Reliability of Petroleum and Petrochemical Equipment

**Engineering Optimal Exploitation of Oilfield Equipment** 

**Hydrocarbon Transport and Storage Systems Engineering** 

**Advanced Control** 

Management and Production Engineering Equipment Oil and Petrochemical







### Graduates' fields of competence and abilities

- research, design and construction of technological equipment for drillingproduction, 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, briefical and petrochemical industry, power industry and machine building industry)







**Mechanical Engineering** 

**Automatics, Computers and Electronics** 









#### **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





#### **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. Qurability 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.





#### **RESEARCH FIELDS**

Artificial Intelligence. Process control. Process modelling and simulation. Measurement of industrial parameters. Modelling and simulation of chemical processes. Design of automatic systems 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.





#### **PARTNERS**



















































# Faculty of Petroleum Refining and Petrochemistry

Founded in 1948, the Faculty of Petroleum Refining and Petrochemistry was transferred to Ploieşti 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** 



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's Degree Programmes - 3 years** 

COMPUTER SCIENCE [F]

Computer Science[S]-75 places

LANGUAGE AND LITERATURE [F]

Romanian Languageand Literatureand English Languageand Literature[S]-150 places

English Languageand Literatureand French Languageand Literature[S]-75 places

#### **ADMINISTRATIVE SCIENCES [F]**

Public Administration [S]–60 places

Managerial and Administrative Assistance [S]–50 places

**EDUCATION SCIENCES [F]** 

Pedagogy [S]-50 places

Pedagogy of Primaryand Pre-school Education[S]-80 places



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

Master's Degree Programmes-2years

COMPUTER SCIENCE[F] -50 places/

**Advanced Technologies for Information Processing** 

PHILOLOGY[F]-100 places/

**Romanian Cultural Studies in the European Context** 

**Concepts and Strategies of Intercultural Communication** 

**ADMINISTRATIVE SCIENCES [F]-50 places/** 

**Public Administration and European Integration** 

**EDUCATION SCIENCES [F]-100 places/** 

**School Counselling and Career Development** 

**Educational management and European integration** 



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

#### **RESEARCH CENTERS:**

**CerTIMF ResearchCenter** 

Research Center in Literary Studies, Linguistics, Critical Theory and Culture Center for Legal and Socio-Administrative Studies and Research (CSCJSA)

https://ls.upg-ploiesti.ro/en/

https://web.facebook.com/LS.UPG

https://www.instagram.com/ls.upg/



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:

LANGUAGE AND LITERATURE -Teaching Romanian language and literature, English language and literature, French language and literature, authorised translation, communication expert

COMPUTER SCIENCE -IT systems and software, databases, computer networks, Web development and management

ADMINISTRATIVE SCIENCES— assistant manager, analyst assistant, civil servant, executive secretary in the administrative field

EDUCATION SCIENCES –Teaching in pre-school and primary school, school counselor, HR expert

https://ls.upg-ploiesti.ro/en/



### Faculty of of Letters and Sciences structure and research

### **Departments:**

**Philology Department** 

Computer Science, Information Technology, Mathematics and Physics Department

**Educational Sciences Department** 

#### Research fields:

Cultural studies, theoretical and applied linguistic, mathematics, computer science, public administration, educational sciences

https://ls.upg ploiesti.ro/en/ https://web.facebook.com/LS.UPG https://www.instagram.com/ls.upg/



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]



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]



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.



### NON-FORMAL EDUCATIONAL ACTIVITIES Celebrating Europe Day





### Faculty of Economic Sciences NON-FORMAL EDUCATIONAL ACTIVITIES

### 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 cerficate 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:**