

National technical University “Kharkiv polytechnic institute”
Institute of Education and Science in Chemical
Technologies and Engineering
Department of “Technologies of Oil, gas
and solid fuel processing and refining”





Speciality – 161. “Chemical Technologies and engineering”

Educational program - **“Technologies of Oil, gas and solid fuel processing and refining”**

Qualification academic degrees :

- 1. Bachelor** of Chemical Technology and engineering
(4 years)
- 2. Master** of Chemical Technology and engineering
(1 years 4 months on bachelor’s base)



Areas of studying:

Processing and refining of crude oil into commodities such as petroleum naphtha, gasoline, diesel fuel, asphalt base, lubricating oil, greases, heating oil, kerosene, paraffin wax and liquefied petroleum gas.

Producing of alternative fuel includes producing of biodiesel, bioalcohol (methanol, ethanol, butanol), hydrogen, non-fossil methane, non-fossil natural gas, propane and other biomass sources.

Environmental protection, sewage treatment

Refining of different kinds of petroleum and coke waste including sulphur dioxide emissions, nitrogen oxides, carbon monoxide.

Automotive oil recycling includes recycling of waste motor and hydraulic oil.



Areas of studying:

Methods of analysis of petroleum products.

Determination of the following characteristics for petroleum and petroleum products:

- Density (methods ASTM D-1298, IP 160 and ASTM D-1250, IP 200), viscosity,
- water content, octane rating for gasoline and cetane rating for diesel fuels,
- flash point, sulphur and sulphur-containing particles amount



Employment perspectives:

- Oil and gas refineries
- Oil – and gas refining companies and laboratories
- Petroleum institutes and departments
- Departments of CAD (computer- aided design) that deal with designing of oil-refining equipment
- Petrol – and gas stations
- Certification oil- and gas laboratories and companies



General academic disciplines for the students of our department (bachelor's level)

Methods of analysis of fossil fuels processing products

Mathematical Modeling and Optimization in chemical technology

The modern methods of cleaning and preparation of petroleum raw
and gas materials

Basics of technology of oil and gas production



General academic disciplines for the students of our department (bachelor's level)



The equipment of oil terminals

Manufacturing Equipment for Oil and Gas Refining

Methods of oil, gas and processing products quality definition

Physics and Chemistry of Blast Furnace Production

Physics and Chemistry of Fuels, Oils, Lubricants

CAD (Computer Aided Design)



General academic disciplines for the students of our department (master's level)

Material Science and corrosion defence of industrial equipment

Collection and Preparation of Oil and Gas Products

Ecology of Manufacturing

Synthesis Based on Gasification of Fuels

Energy saving technologies in the process of preparation and refining of fuels



General academic disciplines for the students of our department (master's level)

Alternative fuels

Modern Technologies of Fossil Fuels
Processing

Theoretical bases of technical processes
of fossil fuels refinery

Projecting of fossil fuels refineries and
computer technologies implementation

Applying of products of fossil fuels
refinery



Our academic teachers



Prof. Inna Lavrova



**Head of department,
prof. Denis Miroshnichenko**



**Associate prof.
Evgeniy Skripnik**



**Associate prof.
Iryna Senkevich**



**Associate prof.
Andrey Grigorov**



**Prof.
Valeriy Nazarov**

Our academic teachers



**Associate prof.
Igor Shulga**



**Associate prof.
Pavel Karnojitskiy**



Lecturer Alena Tulskeya

Our fundamental laboratory equipment



The device for
determination of
flash-point
TB3-1M



Muffle furnace



The device for determination of
resin content
ПООС-77



Chromatograph 3700



Analytic weights
RADWAG AS 220/X

Our fundamental laboratory equipment



Student's laboratory practice

Our contacts:

- Kharkov, Ukraine
- Kyrpychova str. 2
- National Technical University “Kharkov polytechnic institute”
 - Technical bulding, 3 floor, room № 17
 - Contact numbers (+38099)486-58-25
 - (+38057) 707-69-03
 - e-mail: fuel.khpi@gmail.com

