

TYPE and FIELD OF STUDIES: MSc in MECHANICAL SCIENCE

PROGRAMME TITLE: COMBUSTION ENGINES

Faculty / Department: Mechanical Faculty / Institute of Vehicles and Combustion Engines / Combustion Engines Department

Duration: 4 semesters

Programme description: Programme of studies on Combustion Engines Speciality enables development of the engineer's skill in the field of mechanical engineering based on the knowledge obtained formerly and application of that knowledge to the construction, technology, testing and use of combustion engines.

Graduates of this Speciality have ability of apply of the basic knowledge to solve the technical problems concerned combustion engines of different types and size as well as turbine and jet turbine engines. They obtain also the basic knowledge in the domain of combustion engines testing with use of up-to-date special measurement equipment and advanced computer techniques.

Our graduates are familiar with contemporary trends of engine development with particular respect to environment protection requirements.

They possess knowledge in the range of technology of new fuels and operation materials.

Obtained knowledge and preparation enables getting a job in almost all enterprises connected with machines building and exploitation and particularly in the engine industry – R&D institutes, firms or companies using combustion engines, motor transport companies, diagnostic and service stations and many others.

Programme of studies:

	Hours	ECTS
1 st semester		
Piston Engines Theory	30	3
Fuels and Greases	15	2
Turbine Engines	30	3
2 nd semester		
Piston Engines Theory	15	2
Piston Engines Construction	30	2
Turbine Engines	30	3
Piston Engines Laboratory	30	2
Turbine Engines Laboratory	15	2
Fuel Supply and Equipment of Combustion Engines	30	2
Power Transmission Systems with Combustion Engine	30	2
Ecology of Combustion Engines	30	3
3 rd semester		
Piston Engines Construction	30	2
Piston Engines Laboratory	45	3
Fuel Supply and Equipment of Combustion Engines	30	2
Technology of Combustion Engines	45	2
Exploitation of Combustion Engines	45	3
Ecology of Combustion Engines	15	2
Electronic Equipment of Combustion Engines	15	1
Optional Subject I	30	1
4 th semester		
Optional Subject II	30	1
Diploma Seminar	30	3
Diploma Thesis	—	20
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	TOTAL	600 66

OPTIONAL SUBJECTS:

Alternative Sources of Vehicle Drive	15/30
Combustion Processes in Combustion Engines	15/30
Charging of Combustion Engines	15/30
Electronic Control Systems in Combustion Engines Investigation	15/30

Eligibility / Admission: Students who have completed Bachelor Program in Mechanical Science and who earned Bachelor degree

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