

Information sheet for the course Car Construction I

University: <i>Alexander Dubček University of Trenčín</i>	
Faculty: <i>Faculty of special technology</i>	
Course unit code: <i>SaOA/B/1-61/d</i>	Course unit title: <i>Car Construction I</i>
Type of course unit: <i>compulsory</i>	
Planned types, learning activities and teaching methods: <i>Lectures 2 hours per week / laboratory exercises 2 hours per week, full-time method</i>	
Number of credits: <i>4</i>	
Recommended semester: <i>5th semester in the 3rd year (full-time)</i> <i>5th semester in the 3rd year (part-time)</i>	
Degree of study: <i>I. (bachelor)</i>	
Course prerequisites: <i>none</i>	
Assessment methods: <i>Continuous assessment: 100% attendance and active creative work on laboratory exercises, the attainment of goals laboratory practice, mastery of technical terminology, min. 60% attendance at lectures, semester work properly. Twice during the semester written test. The ongoing evaluation is needed to get 40 points. Final assessment: test in a written test with emphasis on theoretical knowledge of the subject and the support of the oral response, which is verified deal activity description functional parts car. Of the 80 points is required to evaluate the minimum obtained: (E) - 55 points, (D) - 60 points (C) - 65 points (B) - 70 points (A) - 75 points.</i>	
Learning outcomes of the course unit: <i>The student will acquire a comprehensive overview of the basic characteristics, classification, basic elements and overall conceptual layout of the main groups of cars. Understand the principle of operation of internal combustion engines, basic parameters, calculations and designs of their functional parts, which is essential for the successful completion of the course structure of the automobile II in the 3rd year of studies.</i>	
Course contents: <i>Definition cars. The characteristics, distribution, basic and conceptual design of the main groups of cars. Definition, classification, conceptual design and principle of operation of reciprocating internal combustion engines. Fixed and movable parts of piston internal combustion engines. Heat balance motors. The forces acting on the crank mechanism and the formation of torque. Power and performance parameters of internal combustion engines. Improving performance supercharged engines. Purpose, structure, principle of operation of individual structural units and systems of internal combustion engines. Construction of turbochargers. Vehicle gas turbines. Wankel rotary piston engines. Unconventional power unit vehicles, hybrid drives, electric.</i>	
Recommended of required reading: <i>Eliáš, J.: Mobilná technika I [skriptá] - 1.vyd. - Trenčín: TnUAD, 2013. - 308 s. - ISBN 978-80-8075-608-6</i> <i>Eliáš, J.: Mobilná technika II [skriptá] - 1.vyd. - Trenčín: TnUAD, 2013. - 308 s. - ISBN 978-80-8075-609-3</i> <i>SLOBODA, A.-FERENCEY, V.-HLAVŇA, V.-TKÁČ, Z.: Konštrukcia kolesových a pásových vozidiel. [učebnica] - 1.vyd. TU Košice. , Sjf TU Košice, 2008.- 558 s. ISBN 978-80-89232-28-4</i> <i>ELIÁŠ, J.: Energetické stroje v mobilnej technike.-1.vyd. -Trenčín : TnUAD, 2011.-224 s. ISBN 978-80-8075-507-2</i> <i>Eliáš, J.: Mobilná technika na kolesových podvozkoch [skriptá] : charakteristiky, technické údaje a popis / - 1.vyd. - Trenčín : TnU AD, 2002. - 338 s. - ISBN 80-88914-62-0</i> <i>Eliáš, J.: Špeciálna mobilná technika na pásových podvozkoch [skriptá] : Charakteristiky, technické údaje a popis / - 1.vyd. - Trenčín : TnUAD FŠT, 2002. - 266 s. - ISBN 80-88914-63-9</i>	
Language: <i>Slovak</i>	
Remarks: <i>The subject is provided in the summer semester in the second year of full-time study. Subject is</i>	

required.

Evaluation history

Total number of students being evaluated: 209

A	B	C	D	E	FX
2,39	5,26	14,35	28,24	44,98	4,78

Lecturers: *Assoc.prof. Ing. Peter Droppa, PhD., Ing. Jozef Eliáš, PhD. – lecturers*
Ing. Štefan Timár. - instructor

Last modification: *15.4.2014*

Supervisor: *Assoc.prof. Alexej Chovanec, PhD., guarantee of the study program “Vehicles Maintenance and Repair”*