



## COURSE DESCRIPTION CARD - SYLLABUS

Course name

Introduction to the automotive industry [S1MiTPM1>WdM]

### Course

Field of study	Year/Semester
Materials and technologies for automotive industry	1/1
Area of study (specialization)	Profile of study
–	general academic
Level of study	Course offered in
first-cycle	Polish
Form of study	Requirements
full-time	compulsory

### Number of hours

Lecture	Laboratory classes	Other
15	0	0
Tutorials	Projects/seminars	
0	0	

### Number of credit points

1,00

### Coordinators

prof. dr hab. inż. Jarosław Jakubowicz  
jaroslaw.jakubowicz@put.poznan.pl

### Lecturers

### Prerequisites

Basic knowledge of technology, ability to think logically and obtain information from various sources, understanding the need to learn and acquire new knowledge.

### Course objective

Providing information on the development of the automotive industry and motor vehicles.

### Course-related learning outcomes

Knowledge:

1. Students have knowledge about milestones in the automotive industry.
2. Students have knowledge about the development of motor vehicle structures and production techniques.

Skills:

1. Students can describe the development of the automotive industry.
2. Students can describe the development of motor vehicle structures.

Social competences:

1. Students are aware of the role of the automotive industry and means of automotive transport for the economy and society.

### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

The knowledge acquired during the lecture is verified during the final colloquium lasting at least 45 minutes. There are two completion dates to which every student is entitled. In addition, students are entitled to make-up colloquium in the make-up session. The final test includes 3-5 questions. The passing threshold is a minimum of 50% of points.

### Programme content

The history of the development of motor vehicles, the development of technical solutions used over the years in the area of construction, production technology, materials, and drive sources.

### Course topics

1. The beginnings of the automotive industry - the idea of the creation of the car
2. Types of road vehicles, their development and purpose
3. Development of car design, design requirements and society's expectations
4. Development of drive systems
5. Introducing new materials, technologies and technical solutions in the automotive industry, from Industry 1.0 to 4.0
6. EU standards and regulations regarding the automotive industry in terms of its development

### Teaching methods

Lecture in the form of a multimedia presentation

### Bibliography

Basic:

1. E. Eckermann, World History of the Automobile, SAE International, 2001, ISBN 9780768048667
2. R. Volti, Cars and Culture The Life Story of a Technology, Johns Hopkins University Press, 2006, ISBN 9780801883996
3. A. Zieliński, Samochody osobowe. Dzieje rozwoju, WKŁ 2009, ISBN 9788320617337

Additional:

1. Z. Kluczkowski, Historia motoryzacji, Wydawnictwo SBM, Warszawa 2021, ISBN 978-83-8222-508-2
2. Advanced Automotive Technology: Visions of a Super-Efficient Family Car, 1995, GPO stock #052-003-01440-81

### Breakdown of average student's workload

	Hours	ECTS
Total workload	28	1,00
Classes requiring direct contact with the teacher	15	0,50
Student's own work (literature studies, preparation for laboratory classes/ tutorials, preparation for tests/exam, project preparation)	13	0,50