## POZNAN UNIVERSITY OF TECHNOLOGY



#### EUROPEAN CREDIT TRANSFER AND ACCUMULATION SYSTEM (ECTS)

pl. M. Skłodowskiej-Curie 5, 60-965 Poznań

## **COURSE DESCRIPTION CARD - SYLLABUS**

Course name

Foundations of innovativity

**Course** 

Field of study Year/Semester

Mechanical and Automotive Engineering 1/1

Area of study (specialization) Profile of study

**Product Engineering** 

Level of study Course offered in

english

Form of study Requirements

**Number of hours** 

Lecture Laboratory classes Other (e.g. online)

15 0

Tutorials Projects/seminars

0 0

**Number of credit points** 

1

## Lecturers

Responsible for the course/lecturer: Responsible for the course/lecturer:

Prof. Zbigniew Kłos, Ph.D.(Eng.), D.Sc.

e-mail: zbigniew.klos@put.poznan.pl

Faculty of Civil and Transport Engineering

Piotrowo 3 Street, 60-965 Poznan

tel.: 61 665 2231

# Prerequisites

KNOWLEDGE: Student has fundamental knowledge about management of organizations and on innovativity issues.

SKILLS: Student possesses ability of perceiving and associating of phenomena occurring in management of market organizations and is able to interpret them, to draw conclusions and to formulate opinions.

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SOCIAL COMPETENCES: Student has the awareness of importance and understands the effects of taking of market oriented activities.

#### **Course objective**

Transmitting to the students the knowledge of fundamental issues connected with conditions of undertaking innovative, market oriented, enterprises.

#### **Course-related learning outcomes**

Knowledge

He knows the main development trends in the field of mechanical engineering.

Is aware of the civilization effects of technology.

Has in-depth knowledge of entrepreneurship and business economics.

Skills

Can communicate on specialist topics with a diverse audience.

Can lead the team's work.

Can interact with other people as part of teamwork and take a leading role in teams.

#### Social competences

It is ready to fulfill social obligations, inspire and organize activities for the benefit of the social environment.

It is ready to initiate actions for the public interest.

Is willing to think and act in an entrepreneurial manner.

#### Methods for verifying learning outcomes and assessment criteria

Learning outcomes presented above are verified as follows:

Control test

## **Programme content**

Definition of innovation and innovativity. Main types of innovations. Personal features of innovative entrepreneurs. Ways of analysis of innovative ideas. Shaping of innovative business activities. Fundamental condition of commercialization of know-how. Phases of innovative enterprise development. Different aspects of introduction of innovative enterprises to the market. Basic knowledge about marketing in area of innovative technological and product solutions.

# **Teaching methods**

Lecture with multi-media presentation

#### **Bibliography**

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#### **Basic**

- 1. J. G. Wissema, Towards third generation university. Technostarters, why and how? Edward Elgar Publishing, Cheltenham 2009
- 2. Oslo manual. 3rd edition. OECD Publishing, Paris 2005

#### Additional

- 1. M. Winger, The innovation imperative. New Direction Press, Texas 2010
- 2. J. Verloop J.G., Wissema, Insight in innovation. Elsevier/Shell Global Solutions, 2006

# Breakdown of average student's workload

	Hours	ECTS
Total workload	25	1,0
Classes requiring direct contact with the teacher	15	0,5
Preparation to test <sup>1</sup>	10	0,5

3

<sup>&</sup>lt;sup>1</sup> delete or add other activities as appropriate