

## Kompetencije diplomiranih studenata/ Competence of graduates

Studenti koji završe doktorske akademske studije Industrijskog inženjerstva i inženjerskog menadžmenta imaju kompetencije da vode istraživanja kao i da rešavaju realne probleme iz prakse. Kompetencije uključuju, pre svega, razvoj sposobnosti kritičkog mišljenja, sposobnosti analize problema, sinteza rešenja i predviđanje ponašanja odabranog rešenja sa jasnom predstavom šta su njegove dobre, a šta loše strane.

Students who complete the doctoral studies of industrial engineering and engineering management will have the competence to conduct research and to solve real problems in practice.

Competencies include, above all, the development of critical thinking, skills for problem analysis, synthesis solutions and predicting the behavior of the selected solution with a clear idea of what are its good and bad sides.

## Gostujući profesori/ Guest Professors

U držanju nastave i u mentorstvu učestvovaće gostujući profesori sa eminentnih inostranih visokoškolskih ustanova / In classes conduction and in mentorship guest professors from eminent international high school will take part:

Ph.D. Dobrila Petrović,  
Titula/Title: Professor of Operational Research  
Institucija/Institution:  
Coventry University, Faculty of Engineering and Computers

Ph.D. Goran Putnik  
Titula/Title: Professor of Intelligent Manufacturing Systems  
Institucija/Institution:  
Universidade do Minho, Braga, Portugal

Ph.D. Micaela Demichela  
Titula/Title: Professor of Operational Research  
Institucija/Institution:  
Politecnico di Torino, Italia

Prof. Miha Boltežar, PhD  
Titula/Title: Professor of Operational Research  
Institucija/Institution:  
Ladisk, Faculty of Mechanical Engineering,  
University of Ljubljana

## Izborni predmeti

Naziv predmeta	Semestar	ESPB
<b>I godina</b>		
Napredne metode i alati upravljanja industrijskim procesima	I	15
~Integrirani sistemi menadžmenta (IMS)	I	15
Analiza i projektovanje informacionih sistema	I	15
Metode vestacke inteligencije u inženjerstvu	I	15
Merenje i upravljanje performansama preduzeca	I	15
~Napredni inženjering održavanja	II	15
Poslovna inteligencija	II	15
~Menadžment sistemom bezbednosti i zdravlja na radu	II	15
Digitalna proizvodnja	II	15
~Racunarska inteligencija u inženjerstvu	II	15
U prvoj godini bira se 4 predmeta sa liste predmeta (2 predmeta u prvom semestru, 2 predmeta u drugom semestru)		
<b>II godina</b>		
Kompjuterom integrisana proizvodnja i poslovanje	III	15
~Metode vestacke inteligencije u menadžmentu	III	15
Modeli poslovanja preduzeca	III	15
Modeliranje i optimizacija u oblasti energetike i zivotne sredine	III	15
~Energetski menadžment	III	15
Priprema za prijavu doktorske disertacije		10
~Laboratorija, istrazivanje, publikovanje		20
U drugoj godini (3 semestar) biraju se dva predmeta sa liste predmeta. Četvrti semestar se sastoji od "Priprema za prijavu doktorske disertacije" i „Laboratorija, istrazivanje, publikovanje (SIR)“		
<b>III godina</b>		
Pisanje doktorske disertacije		10
~Laboratorija, istrazivanje, publikovanje		20
Priprema odbrane doktorske disertacije		10
~Laboratorija, istrazivanje, publikovanje		20
<b>Ukupno ESPB</b>		<b>180</b>

## Elective courses

Course name	Semester	ECTS
<b>I year</b>		
Advanced methods and control tools of industrial processes	I	15
Integrated management system (IMS)	I	15
Analysis and design of Information Systems	I	15
The methods of artificial intelligence in engineering	I	15
Measurement and performance management of enterprise	I	15
Advanced maintenance engineering	II	15
Business intelligence	II	15
Management system of occupational health and safety	II	15
Digital Manufacturing	II	15
Computational Intelligence in Engineering	II	15
In first year 4 courses are elected from the list of courses (2 courses in the first semester, 2 courses in the second semester)		
<b>II year</b>		
Computer integrated enterprises and manufacturing	III	15
The methods of artificial intelligence in engineering	III	15
Business models of enterprises	III	15
Modelling and optimization in the field of energy and environment	III	15
Energy management	III	15
Preparation of application for doctoral dissertation		10
Laboratory, research, publishing		20
In second year (3th semester) two courses are elected from the list of courses. Forth semester is conducted of "ÊË ÑÏ ŒŒŒ of application for doctoral dissertation" and „Laboratory, research, publishing (SIR)“ - Independent Research Work		
<b>III year</b>		
Writing of doctoral dissertation		10
Laboratory, research, publishing		20
Preparation of the defense of the doctoral dissertation		10
Laboratory, research, publishing		20
<b>Total ECTS</b>		<b>180</b>