



UČNI NAČRT PREDMETA / SUBJECT SPECIFICATION

Predmet:	Načrtovanje in upravljanje proizvodnje
Subject Title:	Planning and Production Management

Študijski program Study programme	Študijska smer Study field	Letnik Year	Semester Semester
Tehnika – področje izobraževanja		1	Letni
		ali	
Education in Engineering		2	zimski
		1	Summer
		or	
		2	winter

Univerzitetna koda predmeta / University subject code:

Predavanja Lectures	Seminar Seminar	Sem. vaje Tutorial	Lab. vaje Labor work	Teren. vaje Field work	Samost. delo Individ. work	ECTS
15	10				155	6

Nosilec predmeta / Lecturer:

Jeziki / Predavanja / Lecture:
Languages: Vaje / Tutorial:

Pogoji za opravljanje študijskih obveznosti:

Osnovno znanja o obdelovalnih tehnologijah in načrtovanju proizvodnje

Vsebina:

Predavanja:
Napredne proizvodne tehnologije
NC/CNC/DNC tehnologije;
CAD - CAM sistemi.
Načrtovanje in upravljanje proizvodnje.
1. Strategija lokacije in proizvodne mreže;
2. Integrirana proizvodnja in logistično načrtovanje;
3. proizvodni sistemi in optimiranje proizvodnje;
4. načrtovanje proizvodnje in montaže;
5. upravljanje vzdrževanja in obratna razpoložljivost;
6. Metode in orodja za načrtovanje in upravljanje
Seminar:
Seminar aplikativno dopolnjuje vsebino predavanj z reševanjem praktičnih problemov.

Temeljni literatura in viri / Textbooks:

- Aberšek, B., *Tehnologija in obdelava gradiv*, Didakta, Radovlica, 1995
- Balič, J., *Flexible manufacturing systems*, DAAAM Publishing, Vienna, 2001
- MacInnes, R.L. and Pearce, S.L., *Strategic MRO powered by DSC*, Net Results Inc., Kentucky, 2002

Prerequisites:

Basic knowledge of production technologies and planning of the production.

Content (Syllabus outline):

Lectures:
Advanced production technologies
NC/CNC/DNC technologies;
CAD - CAM systems.
Planning and Production Management
1. Location strategy and production networks
2. Integrated factory and logistics planning
3. Production system and production optimization
4. Product design and assembly planning
5. Maintenance management and plant availability
6. Methods and tools for Planning and Management
Seminar:
Seminar work supplements the lectures with the solutions of the practical problems.

Cilji:

Objectives:

podati znanja in informacij o sodobnih tehnologijah, ki se danes vse pogosteje uporabljajo;
 podati poglobljeno teoretično znanje s področja vrednotenja in izbire sodobnih obdelovalnih tehnologij;
 podati poglobljena znanja o načrtovanju in vodenju proizvodnje;
 prikazati praktično uporabo predhodno pridobljenih teoretičnih znanj na praktičnih primerih;
 spodbujanje študentov k kreativnemu in samostojnemu razmišljanju in razvijanju sposobnosti za kreativno reševanje inženirskih problemov.

To present knowledge and information about contemporary technologies, mostly connected with production;
 to provide detailed theoretical knowledge from area of assessment and selection of contemporary production technologies;
 to provide detailed theoretical knowledge about planning and management of the production;
 to demonstrate practical use of previously accumulated theoretical knowledge on the practical examples.
 to encourage the students to creative and independent thinking for developing and solving different engineering problems.

Predvideni študijski rezultati:

Znanje in razumevanje:
 poznavanje splošnih napotkov in pravil za izbiro ustreznih obdelovalnih tehnologij;
 poznavanje didaktičnih načel, pravil in orodij za prenos tehnoloških znanj;
 poznavanje načinov za učinkovito načrtovanje proizvodnega procesa;
 poznavanje splošnih kriterijev za izbiro ustreznih tehnologij;
 poznavanje metod in smernic za tehnološki razvoj izdelka;
 poznavanje sodobnih računalniških metod za tehnološko načrtovanje proizvodnje;
 razumevanje sovisnosti različnih znanj in postopkov ter pomena uporabe strokovne literature in računalniških sistemov za učinkovito reševanje praktičnih problemov.

Intended learning outcomes:

Knowledge and understanding:
 knowledge of general instructions and rules for selecting suitable production technologies;
 knowledge of didactical principles, rules and tools for learning about technologies;
 knowledge for effective planning of production technologies;
 knowledge of general criteria for selecting production technologies;
 knowledge of methods and guidelines for technological product development;
 knowledge of advanced computer aided methods for technological planning of the production;
 understanding of relationships between different skills and procedures and importance of professional literature and computer systems for efficient solutions of practical problems.

Prenesljive/ključne spretnosti in drugi atributi:
 Spretnosti komuniciranja: pisno izražanje v forumih, zagovor seminarskih del;
 uporaba informacijske tehnologije: uporaba orodij za načrtovanje tehnoloških procesov;
 reševanje problemov: ocenjevanje obstoječih in lastnih tehnoloških rešitev;
 kombinirana uporaba različnih znanj za reševanje praktičnih problemov;
 načrtovanje tehnologije za izdelavo izdelka z uporabo sodobnih metod.

Transferable/Key Skills and other attributes:
 Communication skills: written expression in discussion groups, presentation of seminar assignments;
 use of information technology: use of tools for creating and designing technological process;
 problem solving: evaluation of existing and proper program solutions;
 combined use of different skills for solution of practical problems;
 design of technological process using advanced approaches.

Metode poučevanja in učenja:

frontalna predavanja,
 skupinsko delo;
 izdelava seminarske naloge,
 diskusije v elektronskem forumu,
 e-učenje.

Teaching and learning methods:

frontal lectures,
 work in small groups;
 seminar work,
 discussion in electronic forums,
 e-learning.

Načini ocenjevanja:

Način (pisni izpit, ustno izpraševanje, naloge, projekt):
 diskusije v elektronskem forumu,
 seminarska naloga,
 pisni izpit,
 ustni izpit.

Delež (v %) /
 Weight (in %)

Assessment methods:

Type (examination, oral, coursework, project):
 discussion in electronic forums,
 seminar work,
 written examination,
 oral examination.

20 %
 40 %
 20 %
 20 %