Information sheet for the course
Designing repair processes

University: *Alexander Dubček University of Trenčín*

Faculty: *Faculty of special technology*

Course unit code: *UŠMT/I/3-52/d* | **Course unit title:** *Designing repair processes*

Type of course unit: *compulsory*

Planned types, learning activities and teaching methods:
1 hour lectures per week, 2 hours laboratory exercises per week

Number of credits: *2*

Recommended semester: *4st semester in the 2nd year (full-time)*
5th semester in the 3rd year (part-time)

Degree of study: *II. (engineer)*

Course prerequisites: *UŠMT/I/4-56/d Computer-Aided Design II.*

Assessment methods:
100% participation in laboratory exercises demonstrate basic knowledge of the subject during the semester, the timely production and delivery of the project.

Learning outcomes of the course unit:
The student has knowledge of cross-department focusing on application usage level design repair processes and systems at the workplace, workshops, and plant operation, provide theoretical and practical knowledge of creation and all levels of programming methods and processes of repair and refurbishment and repair process time studies with soft analytical and graphical support systems HEIDENHAIN iTNC530 (Milling), FANUC 30i (Turning, Milling) and CATIA V5 NC manufacturing.

Course contents:
Repair process and its breakdown. Technical preparation of corrections and its breakdown. Overall preparation processes repairs and renovations. Technological Preparation of the repair process. Technological design repair processes. Designing renovation of castings, forgings, stampings and weldments (blanks). Designing renovations súčiastkových files and assembly workshop. Designing repair work. Basic Engineering repair systems at the workshop, and plant operation. Application creation restoration process by machining and repair time trials process with software analytical and graphical support CNC control systems HEIDENHAIN iTNC530, FANUC 30i NC GUIDE FOR (Turning, Milling), and CAD / CAM CATIA V5 NC manufacturing.

Recommended of required reading:
MAJERÍK, J, ŠANDORA, J.: Nové progresívne nástroje a metódy technológie obrábania, FŠT TnUAD Trenčín, 2012, tlač J+K Nemšová ISBN 978-80-8075-515-7, EAN 97888080755 157, 212 s.
DILLINGER. J. a kol.: Moderní strojírenstvi pro školu a praxi, Europa Sobotáles, 2007 by Verlag Europa-Lehrmittel, ISBN 978-80-86706-19-1
ŠTULPA, M.: CNC obráběcí stroje a jejich programování. BEN Praha 2006, ISBN 978-80-7300-207-7
HLAVENKA, B.: Projektování výrobných systémů I, VUT - FS Brno, CERM 2005, s19 , ISBN 80-214-2871-6
GE FANUC AUTOMATION CNC: MANUAL GUIDE i - Turning, 2007, 125 strán, - 1.st edit. GE fanuc Automation CNC Europe S.A. Echternach, Luxembourg.
GE FANUC AUTOMATION CNC: MANUAL GUIDE i - Milling, 2007, 125 strán, - 1.st edit. GE fanuc Automation CNC Europe S.A. Echternach, Luxembourg.
TECHNOCENTRUM CAD - Turning and Milling applications of CATIA V5 NC Manufacturing, 530 strán, 2007, TC CAD Liberec, Czech Republic.
JANDEČKA, K.: Postprocesory a programování CNC strojů. FTVM Brno. ISBN978-80-7044-870-0

Language: *Slovak*

Remarks:

Compulsory subject.

Evaluation history:

Total number of students being evaluated: 0

A	B	C	D	E	FX
0,0	0,0	0,0	0,0	0,0	0,0

Lecturers: *doc. Ing. Harold Mäsiar, CSc.- Lecturer*
Ing. Jozef Majerík, PhD. - instructor

Last modification: *15.4.2014*

Supervisor: *prof. Ing. Alexej Chovanec, CSc., guarantee of the study program „Maintenance and Repair of Special Mobile Technology“.*