SYLLABUS

Basic data of the subject	
University	**University of Applied Sciences in Ferizaj**
Academic unit	**Faculty of Engineering and Informatics**
Program	**Industrial Engineering with Informatics**
Title of the subject:	**CAD/CAM**
Level:	**Bachelor**
Course Status:	**Core**
Year of studies:	**III, Semester VI**
Number of hours per week:	**3**
Value of Credits - ECTS:	**4**
Time / location:	
Course lecturer:	
Contact details:	
Course Description	*With the development of production technology, the approach of CAD professionals to CAD applications in CAM software has evolved. This course will introduce students to CAD/CAM application and methodology.*
Objectives of the course:	*Introduction of application possibilities of computers in production with an emphasis on programming CNC machine tools. Adoption of fundamentals of programming in systems CAD / CAM.*
Expected learning outcomes:	*Upon successful completion of this subject, student will be able to:* • *compile and select a constructing task theoretically* • *working independently on computer task constructive* • *Compile manufacturing operations for processing a detail in CNC machines*
Prerequisites	*N/A*

Contribution to the student load (which must correspond with learning outcomes)			
Activity	**Hour**	**Day/Week**	**In total**
Lectures with lab tutorials	3	15	45
Internship			
Contacts with teacher / consultations	1	4	4
Field exercises			
Midterm, seminars and projects.	3	12	36
Homework			
Self-learning time student (at the library or at home)	1	15	15
Final preparation for the exam			
Time spent on evaluation (tests, quiz and final exam)			
Projects and presentations.	1	1	1
Total			**101**

Teaching methodology:	*Lectures combined with laboratory work and in the workshop with CNC machines, as well as active collaboration in the student team*

Assessment methods:	Course work 100% ***Rating:*** *91-100 points – graded 10 (ten)* *81-90 points – graded 9 (nine)* *71-80 points – grade 8 (eight)* *61-70 points – grade 7 (seven)* *51-60 points – grade 6 (six)* *0-50 points – The student repeats the exam.*
Literature	
Basic Literature:	*1. Prof. dr. Shaban A. Buza, Sistemet CAD/CAM –* *ligjerata të autorizuara,* *Prishtinë 2009* *2.Stark, J., Managing CAD/CAM Implementation,* *Organisation and Integration, McGraw Hill,1998.*
Additional Literature:	*1. Altintas, Y.: Manufacturing Automation, Cambridge* *University Press, Cambridge 2000.* *2. R. Cebalo: Obradni sustavi, Vedograf, Zagreb 2000.*

Designed learning plan	
Week:	**Lectures and exercises to be held**
Week one:	*Introduction to CAD and CAM.*
Week two:	*CAD systems. Components of CAD systems. Production supported by computers - CAM.*
Week three:	*NC and CNC machines. The key elements of CNC machines, measuring systems, drives, and computers command. Characteristics of CNC computer command.*
Week four:	*Programming of CNC machines. Programming by hand. Programming systems CAD / CAM.*
Week five:	*Practical work in the Laboratory.*
Week six:	*CAD modelling taking into account the generation of NC Programs.*
Week seven:	*The integration of CAD and CAM systems.*
Week eight:	*The interfaces of systems CAD / CAM.*
Week nine:	*Application of systems CAD / CAM design and manufacture of complex Parts.*
Week ten:	*Tool path generation for faster processing of prototypes.*
Week eleven:	*Manipulation with working parts and tools*
Week twelve:	*Programmable Controllers*
Week thirteen:	*Robots and manipulators.*
Week fourteen:	*Practical work in the Laboratory*
Week fifteen:	*Presentation of course work*

Academic policies and rules of conduct
Regular attendance of lectures and exercises is necessary, as well as active participation with discussion and solution of tasks. Not impeding the progress required for learning using mobile phones turned off or in silent mode.