SYLLABUS

The basic course information:	
Academic unit:	**Faculty of Engineering and Informatics**
Title of the subject:	CAD II
Level:	Bachelor
Course Status:	Core
Year of studies:	II
Number of hours per week:	3
Value of Credits - ECTS:	5
Time / location:	Cabinet 213
Course lecturer:	Msc. Flamur SALIHU
Contact details:	flamur.salihu@ushaf.net
Course description:	*This course will introduces students about 3D drawings with software AutoCAD/Inventor. Through lectures, exercises and drawings, students will be introduced to Computer-Aided Design (CAD) with software AutoCAD/Inventor*
Objectives of the course:	*The aim of the course is to prepare students with the basic and advanced principles of drawing in three dimensional view (3D) using AutoCAD/Inventor application software.*
Learning outcomes:	*After the completion of this module, student will be able to:* • *understand how to use AutoCAD/Inventor software,* • *apply commands to AutoCAD/Inventor software for drawing various figures in 3D view,* • *develop the skills to manage the 3D coordinate system, various engineering lasers, various techniques to create solid 3D models and 3D surfaces, various materials, etc.* • *create different drawings, texts, etc. in 3D view,* • *develop successfully engineering projects using AutoCAD/Inventor software.*

Contribution to the student load (which must correspond with learning outcomes)			
Activity	Hour	Day/week	In total
Teaching (Lectures and exercises)	3	15	45
Internship			
Contacts with teacher / consultations	1	4	4
Field exercises			
Midterm, seminars and projects.	2	7	14
Homework			

Self-learning time student (at the library or at home)	3	15	45
Final preparation for the exam	2	7	14
Time spent on evaluation (tests, quiz and final exam)	2		2
Projects and presentations.			
Total			**124**

Teaching methodology:	*Lectures through presentations, as well as using software directly, exercises tasks and examples, seminars, discussions.*
Assessment methods:	*Graphic tasks 20%,* *Final exam 80%*

Literature	
Basic Literature:	*[1] Avdiu S. Vizatimi me kompjuter (AutoCAD 2008)* *[2] Avdiu S. Vizatimi me kompjuter (praktikum) 2005* *[3] Engineering Design Graphics with Autodesk Inventor 2020, James D. Bethune.*
Supplementary Literature:	*[4] Finkelstein E. AutoCAD 2013 and AutoCAD LT 2013 BIBLE.2012* *[5] Autodesk Inventor 2019, Basics Tutorial*

Designed learning plan:

Week	Lectures and exercises to be held
Week one:	*Start working in 3D view (AutoCAD). Transition from 2D view to 3D view. How to use the interface (command panels, 3D images, ribbon, etc.)* *Commands in Solid panel (BOX, SPHERE, CYLINDER, CONE, WEDGE and TORUS)*
Week two:	*Commands in the draw and modify panel (3D polyline, 3D mirror, 3D rotate, 3D align, 3D scale, etc.).* *Commands: Extrude, Loft.*
Week three:	*Commands in the draw and modify panel (3D array, 3D fillet, chamfer, etc.). Commands: Sweep, Revolve.* *UCS coordinate system, Viewports. Creating layeres.*
Week four:	*Solid Editing Commands (union, slice, subtract, intersect, thickness, separate, etc.)*
Week five:	*MESH commands (mesh box, cylinders etc.). Mesh solids modeling and editing.*
Java e six:	*Dimensioning. Materials (RMAT).*

Week seven:	*Visualizing. Rendering.*
Week eight:	*Start working at Autodesk Inventor. Interface. Description of some features (commands) similar to the AutoCAD program.*
Week nine:	*Sketching tools.*
Week ten:	*Basic models in Autodesk Inventor.*
Week eleven:	*Assembly Creating.*
Week twelve:	*Creating complex models*
Week thirteen:	*Dimensioning. Projections. Slicing.*
Week fourteen:	*Visualizing. Materials.*
Week fifteen:	*Simulation of model parts.*

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.