

COURSE SYLLABUS

University	UNIVERSITY OF ORADEA
Faculty	FACULTY OF ENERGY ENGINEERING AND INDUSTRIAL MANAGEMENT
Study program*	KNITTING AND CLOTHING TECHNOLOGY

I.CourseName: COMPUTER AIDED GRAPHICS

II. Course Details

No of hours/week						
Code	Semester	Credits	Lecture	Seminar	Laboratory	Project
IEMI 0523	2		3		3	

III.Coursecoordinator (title, name, surname, e-mail): Assoc.Prof. ŞUTEU Marius DariusPhD,
msuteu@uoradea.ro, suteu_marius@yahoo.com.

IV. Courseobjectives

The discipline has as mainobjectivetheacquisition of thegraphiclanguage specific tothe engineering field, means ofobjectsrepresentation, elaborationprocedures ofgraphicdocumentation for a product. The aims for studentstobeabletoapplythenotionsaquiredduring computer graphicscourses, in practicalapplications in thefield of computer graphics, industrial design.

V. Course content	No. of hours
V.1. Lecture (chapters/subchapters and paragraphs)	
1. Introductorynotions Directionsandtrends. Software packagesused for drawing – design.	1
2. General presentationstandards in engineering graphics	1
3. AutoCAD program Launch of the program. CAD worksession. Coordinate system (WCS and UCS). Absolute and relative Cartesiancoordinates, polar coordinates. Program menus. Launchingorders. Assistance. Starting a drawing. Savethedrawing in variousformatsandendtheworksession. Coordinate systems. Data entry. Printing-plottingandscale modelling. Plottingstyles	9
4. CorelDRAW program Launch ofCorelDRAWapplication. Creating a document in CorelDRAW. Saveandclosedocuments in CorelDRAW. Page formatting. Settingcontour line attributes. Workingwith text, text properties, basic features, fonts, font installation, resizingand text editing, columnwriting. Properties of documents, layout, how it interactswiththeuser.Effects in Corel Draw. Bitmapimagesandbitmapelements, bitmapeffects.	15
5. The Adobe Illustrator® program Interfaceandworkingspace. Layers / layers / fields. Color panel. Drawinglines, drawingpredefinedshapes. Drawingmodes. Drawingtools: pen, curves, pencil. Effectsandfilters. Commands for cutting, dividingandobjectsdivision. Drawings. Workingwith text. Workspacecustomization. Selectingandarrangingobjects. Objectstransformation.	16
V.2. Laboratory/Seminar/Project:	
1. Gettingusedwith Auto CAD program. Use of drawing, processing,drawingentitiescommands. Making simple sketches.	3
2. Auto CAD program. Applications in thegarmentindustry.	6
3. The mainelements of the Corel program, themaintools in thecommand bar, howthey are used, drawing in Corel, withthehelp ofcurves, lines, geometric shapes, etc. Makingthesimplestmodels of clothingproducts.	6
4. Modificationandtransformation of drawings, constructedlines, geometric shapesintothree-dimensional shapes, etc.	3
5. Properties of documents, layout, howtointeractwiththeuser, howtomakecatalogs, leaflets, howto integrate and insert pages, howtomake layout scalingmodelsfor presentations, etc.	3
6. Bezier curve editingmodes, workingwiththesecurves, nodes, nodetypes.	3

7. Effects in Corel; adjustments, transformations, color corrections, three-dimensional effects (extrude, blend, etc.) artistic effects, successive cloning, making gradients, combining objects, applying shadows on objects, gradients between objects, transforming and bringing into perspective, placing an image in an invisible frame (place-insider), copying the effects, cloning them.	6
8. Bitmap images and bitmap elements, bitmap effects. Converting images to bitmaps, converting images into vector files, vectorizing images, various settings for converting to vector file.	3
9. Launch Adobe Illustrator program. Workspace preparation and description of tools. Making graphics sketches - women's skirt, women's dress using Adobe Illustrator program.	3
10. Layers panel. Drawing mode without contour. Making the graphics sketch - women's t-shirt with the help of Adobe Illustrator program.	3
11. Gradient function. Making the graphics sketch of the women's sweater. Inserting a .jpg file into the swatches panel using the tool for predefined shapes. Making the graphics sketch - women's jacket.	3

VI. Bibliography

1. Șuteu, M.D. - *Grafică asistată de calculator* - în format electronic CD, Editura Universității din Oradea, 2018, ISBN 978-606-10-1964-9.
2. Șuteu M., Rațiu G.: *Grafică asistată de calculator - Note de curs*, Editura Universității din Oradea, ISBN 978-606-10-1988-5, 2018, 259 pp.
3. Șuteu, M. D., Rațiu, G. *Grafică asistată de calculator - Note de laborator*. Editura Universității din Oradea, 2018, ISBN 978-606-10-1969-4.
4. Simion I. – AutoCAD 2002 pentru ingineri, Ed. Teora, București, 2003
5. Bain, S., Wilkinson, N., *CorelDRAW 12. Ghidul oficial*. Editura BicAll, București, 2006.
6. Bădulescu L., Matei, S., Bădulescu, E., I., *Inițiere în CorelDRAW*, Editura ARVES București, 2008.
7. Ciobanu, L. – „*Grafică asistată de calculator*”, Politehnicum, Iași, 2008
8. Moldoveanu, F., ș.a., *Grafică pe calculator*, Editura Teora, București, 1996.
9. Racocia Cristina, *Grafica asistata de Calculator*, 2013, Iași, 300 pag., format electronic; Pater, Mirela *Elemente de grafica pe calculator*, Editura Universitatii din Oradea, 2002

VII. Grading criteria

Activities	Assesment	% of final grade
Exam	Written exam from the notion learned at the lecture. Understanding the basic principles of computer graphics. Basic knowledge of the concepts presented in the lecture: explain and apply. Minimal knowledge is measured by reaching the grade for passing the exam (5). 10: excellent (outstanding performance with only minor errors), 8-9: very good (above the average standard but with some errors), 6-7: satisfactory (fair, but with significant shortcomings), 5: sufficient (performance meets minimum criteria), 1.0-4: fail (significant work has to be done).	40%
Seminar/Laboratory/Project	Continuous evaluation. Proper implementation, knowledge. Correctness of the assignments.	60%

Course coordinator,
Assoc.Prof. ȘUTEU Marius Darius