



<b>MODULE: AUDIOVISUAL AND MULTIMEDIA</b>	
<b>General objective</b>	<p>Train and qualify the students to be able to carry out 2D and 3D Shape designs, as well as to get working techniques to achieve project Layouts and designs with high visual power.</p> <p>The students will carry out the whole process to create a design:</p> <ul style="list-style-type: none"> <li>- Outline the design to carry out</li> <li>- Three-dimensional creation of the object</li> <li>- Product presentation</li> </ul>
<b>Specific objectives</b>	<ul style="list-style-type: none"> <li>- Generate the necessary wire geometry to get 3D geometric shapes</li> <li>- Use the necessary mathematical calculations to add and subtract volumes and for the dynamic edition of the design</li> <li>- Previous outline of the design to carry out</li> <li>- Master the layout techniques for a professional outcome</li> </ul>
<b>Units</b> <i>Each unit should be described in detail in the following template</i>	<ol style="list-style-type: none"> <li>1.- Colour, Visualisation and Dynamics of the Shapes</li> <li>2.- Geometric shapes and abstract concepts</li> <li>3.- 2D and 3D Shape Design</li> <li>4.- Layout and Graphic composition</li> <li>5.- Layout and Graphic composition (II)</li> </ol>
<b>Learning outcomes of the Module</b>	<ul style="list-style-type: none"> <li>- The student will be able to classify the object colours by their texture and the physical properties of the materials they are made of.</li> <li>- The student will be able to carry out impact surveys of light on colour through the observation of the object in different situations, such as the spatial point of view.</li> <li>- The student will be able to elaborate the design and digital edition of the geometric shapes planned for their further use in volumetric generation.</li> <li>- The student will be able to carry out digitally the Volumetric design of the planned project, operating with specific computing equipments and applications in the creation processes: AutoCAD, Inventor, Solid Works, Catia...</li> <li>- The student will be able to digitalise and elaborate the image processing through computer applications.</li> <li>- The student will be able to analyse the colour, evaluate the image quality, using technical specifications.</li> <li>- The student will be able to create the layout of graphic products processed for the visual presentation of the design carried out, working with specific computer applications: Photoshop, PowerPoint, Adobe Premiere...</li> </ul>
<b>Module Duration</b>	<p><b>50 hours</b></p> <p>Unit 1 6 hours Unit 2 10 hours Unit 3: 15 hours Unit 4: 9 hours Unit 5: 10 hours</p>
<b>Evaluation Methods and Criteria</b>	<p><b>Module: Colour, Visualisation and Dynamics of the Shapes</b></p> <p>-Carry out 2D Shape outlines, using the parameters of the necessary variable measurements for their dynamic transformation, using the</p>



corresponding orders of the software used (AutoCAD, Inventor, Catia, Solidworks,...)

- Present the layouts carried out in digital format for their observation, as well as the relevant tests of the module

**Module: Geometric shapes and abstract concepts**

-Use the necessary orders for the creation of bidimensional and tridimensional environments using the corresponding orders of the used software (AutoCAD, Inventor, Catia, Solidworks,...)

-Identify the geometric shapes of objects

-Identify and create the layers. Properties.

**Module: 2D and 3D geometric shape design**

- Use the necessary orders for the creation of 3D volumetric Objects, using the corresponding orders of the used software (AutoCAD, Inventor, Catia, Solidworks,...)

- Use the Boolean orders to add and subtract matter to transform 3D volume, using the orders learnt regarding the used software.

Present the designs carried out in digital format for their observation, as well as the relevant tests of the module.

**Module: Layout and Graphic composition**

- Carry out the Storyboard and the Layouts of the presentation planned from the created design or designs.

- Achieve the Layout of the presentation of the design carried out using the necessary software (Photoshop, PowerPoint, Adobe Premiere,...)

**Module: Layout and Graphic composition (II)**

- Achieve the Layout of the presentation of the design carried out using the necessary software (Photoshop, PowerPoint, Adobe Premiere,...)

*Continuation*

- Present the Layout carried out in digital format for its observation, as well as the relevant tests of the module.



MODULE: AUDIOVISUAL and MULTIMEDIA		
ECVET Unit: Colour, Visualisation and Dynamics of the Shapes		
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre-impresion	
<b>EQF Level</b>	<b>4</b>	
<b>Learning outcomes</b>	<ul style="list-style-type: none"> <li>- The student will be able to classify the object colours by their texture and the physical properties of the material they are made of</li> <li>- The student will be able to carry out impact surveys of light on colour through the observation of the object in different situations, as the spatial point of view.</li> </ul>	
Knowledge	Skills	Competences
<ul style="list-style-type: none"> <li>- Describe the colour, outline and shape; Design and Creativity: Observation and Abstraction; Colour: Shade, Value and Saturation; Illumination and Shades.</li> <li>- Define the physical properties of the material: Reflexion, Refraction, Luminance and Transparency</li> <li>- Explain the shapes' outline: the shape balance and weight; Lineal and Curve outlines; Visual angle, Points of view</li> </ul>	<ul style="list-style-type: none"> <li>-Analyse and compare the outlines previously carried out to get an improved design</li> <li>-Compare the outlines carried out to get the best design</li> </ul>	<ul style="list-style-type: none"> <li>- Elaborate the Project survey to create different models by observing the problem to be solved.</li> </ul>



MODULE: AUDIVISUAL and MULTIMEDIA		
ECVET Unit: Geometric shapes and abstract concepts		
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre- Impression	
<b>EQF Level</b>	<b>4</b>	
<b>Learning outcomes</b>	- The student will be able to elaborate the design and digital edition of the geometric shapes planned for their further use in volumetric generation.	
<b>Knowledge</b>	<b>Skills</b>	<b>competences</b>
<ul style="list-style-type: none"> <li>- Define changing orders: move, copy, turn, scale, equidistance, symmetry,... cut, lengthen, connection, chamfer...</li> <li>- Define axis and plans systems: orthogonal and isometric views</li> </ul>	<ul style="list-style-type: none"> <li>- Solve the relevant volumetric design, implementing the relevant orders</li> <li>-</li> </ul>	<ul style="list-style-type: none"> <li>- Elaborate geometric shapes and abstract designs analysing the necessary parameters of the model to optimize the possible changes.</li> </ul>



MODULE: AUDIVISUAL and MULTIMEDIA		
ECVET Unit: Design of 2D and 3D geometric shapes		
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre-Impression	
<b>EQF Level</b>	<b>4</b>	
<b>Learning outcomes</b>	- The student will be able to carry out digitally the Volumetric design of the planned project, operating with specific computing equipments and applications in the creation processes: AutoCAD, Inventor, Solid Works, Catia...	
<b>Knowledge</b>	<b>Skills</b>	<b>competences</b>
<ul style="list-style-type: none"> <li>- Describe 2D drawing orders: line, circle, arch, ellipse, rectangle, polygon...</li> <li>- Explain the 3D modelling orders: extrusion, revolution and sweeping and Boolean operations: addition, subtraction and intersection.</li> <li>- Describe 3D impression: additive technique: export of parts to stl format.</li> </ul>	<ul style="list-style-type: none"> <li>- Implement the orders to build 2D outlines</li> <li>- Carry out the necessary changes in 2D geometry to get the best design, optimizing the process</li> <li>- Use correctly the working plans and axis to get the 3D shape</li> </ul>	<ul style="list-style-type: none"> <li>- Elaborate 2D and 3D virtual designs analysing the necessary parameters of the model to optimize the possible changes and reduce costs.</li> </ul>



MODULE: AUDIOVISUAL and MULTIMEDIA		
ECVET Unit: Layout and Graphic composition		
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre- Impression	
<b>EQF Level</b>	<b>4</b>	
<b>Learning Outcomes</b>	<ul style="list-style-type: none"> <li>- The student will be able to digitalise and elaborate the image processing through computer applications.</li> <li>- The student will be able to analyse the colour, evaluate the image quality, using technical specifications.</li> </ul>	
Knowledge	Skills	Competences
<ul style="list-style-type: none"> <li>- Explain the balance in Composition, Rhythm and Harmony</li> <li>- Define Shade, Contrast and Texture</li> <li>- List the visual directions in Layout: horizontality, verticality...</li> </ul>	<ul style="list-style-type: none"> <li>- Import external elements that will be used in Layout</li> </ul>	<ul style="list-style-type: none"> <li>- Create the project Layout, elaborating an optimal composition of all the elements embedded</li> </ul>



MODULE: AUDIOVISUAL and MULTIMEDIA		
ECVET Unit: Layout and Graphic composition (II)		
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre- Impression	
<b>EQF Level</b>	<b>4</b>	
<b>Learning Outcomes</b>	- The student will be able to create the layout of graphic products processed for the visual presentation of the design carried out, working with specific computer applications: Photoshop, PowerPoint, Adobe Premiere...	
<b>Knowledge</b>	<b>Skills</b>	<b>Competences</b>
<ul style="list-style-type: none"> <li>- Describe audio-visual elements</li> <li>- Explain multimedia file import</li> <li>- Define the use of Typography in Composition.</li> </ul>	<ul style="list-style-type: none"> <li>- Elaborate the suitable composition for the design presentation</li> </ul>	<ul style="list-style-type: none"> <li>- Create the project Layout, elaborating an optimal composition of all the elements embedded, getting a good rhythm regarding colour and dynamics.</li> </ul>



ECVET Unit: Colour, Visualisation and Dynamics of the Shapes				
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre-impression			
<b>Module Title</b>	AUDIVISUAL and MULTIMEDIA			
<b>Module Type</b>	Sector-specific			
<b>Module Theme</b>	Audiovisual and multimedia arts			
Training Methods			Training hours	Weight
<b>Instructor-led/Classroom-based</b>	Theoretical learning	Theoretical presentation: Color and light chromatic scales RGB, HLS, CMYK	0,5 hour	8,5%
	Practical learning	Creating colors and textures in the digital environment; Doubts about e-learning workshops will be solved individually by the students; Software used in the classroom session: Photoshop, 3dstudio VMAX	0,5 hour of individual working / exercises to be reviewed by teacher	8,5%
<b>E-learning</b>	Color and light, chromatic scales, digital Color and Dynamic forms readings; Workshops, conducted by the student on color and behavior, using digital techniques; Bocetacion freehand of an object and its schematic process Videos about color and color psychology		4 hours	66%
<b>Proyecto</b>	The student must define the base colors and its chromatic variations, which later he/she used in the project, as well as the font to be used for texts		1 hour of workshops – final project	17%
<b>Total training hours</b>			6h	
<b>Total ECVET points</b>			0,45	





ECVET Unit: 2D and 3D geometric shape design				
Reference Qualification:	Expert on processing and Layout of Graphic Elements in Pre-impresion			
Module Title	AUDIVOVISUAL and MULTIMEDIA			
Module Type	Sector-specific			
Module Theme	Audiovisual and multimedia arts			
Training Methods			Training hours	Weight
<b>Instructor-led/Classroom-based</b>	Theoretical learning	Drawing Orders and edit 2D geometric shapes; Creating Orders for 3D objects; Boolean operations	1 hours	12%
	Practical learning	Doubts about e-learning workshops will be solved individually by the students; Practical exercises to help to improve and understand the three-dimensional design; Software used: AutoCAD	3 hour of individual working / exercises to be reviewed by teacher	28%
<b>E-learning</b>	Suggested Reading: Three-dimensional representation, coordinates, 2D and 3D volumetric shapes Design, Mass operations: Union and Difference  Workshops to put in practice the previous issues  Videos: Three-dimensional design Using Additive Techniques for obtaining prototype: 3D Printing		4 hours	40%
<b>Projecto</b>	The student perform the three-dimensional design of the		2 hours of workshops – final project	20%



	proposed object in order to make the project		
	<b>Total training hours</b>	10	
	<b>Total ECVET points</b>	0,75	



ECVET Unit: Layout and Graphic composition				
Reference Qualification:	Expert on processing and Layout of Graphic Elements in Pre-impresion			
Module Title	AUDIOVISUAL and MULTIMEDIA			
Module Type	Sector-specific			
Module Theme	Audiovisual and multimedia arts			
Training Methods			Training hours	Weight
<b>Instructor-led/Classroom-based</b>	Theoretical learning	Drawing Orders and edit 2D geometric shapes; Creating Orders for 3D objects; Boolean operations	2 hours	12%
	Practical learning	Doubts about e-learning workshops will be solved individually by the students; Practical exercises to help to improve and understand the three-dimensional design; Software used: AutoCAD	4 hour of individual working / exercises to be reviewed by teacher	28%
<b>E-learning</b>	Suggested Reading: Three-dimensional representation, coordinates, 2D and 3D volumetric shapes Design, Mass operations: Union and Difference Workshops to put in practice the previous issues Videos: Three-dimensional design Using Additive Techniques for obtaining prototype: 3D Printing		5 hours	40%
<b>Proyecto</b>	The student perform the three-dimensional design of the proposed object in order to make the project		4 hours of workshops – final project	20%
<b>Total training hours</b>			15	
<b>Total ECVET points</b>			1,13	



ECVET Unit: Layout and Graphic composition				
<b>Reference Qualification:</b>	Expert on processing and Layout of Graphic Elements in Pre-impresion			
<b>Module Title</b>	AUDIVOVISUAL and MULTIMEDIA			
<b>Module Type</b>	Sector-specific			
<b>Module Theme</b>	Audiovisual and multimedia arts			
Training Methods			Training hours	Weight
<b>Instructor-led/Classroom-based</b>	Theoretical learning	Layers and treatment Brushes, filters Tools for retouching: Patch, Focus and blur	0,5 hours	5%
	Practical learning	Graphic Composition and layout to present a product  Resolution of doubts arising in e-learning workshops Software used: Photoshop, PowerPoint	1,5 hours of individual working / exercises to be reviewed by teacher	16%
<b>E-learning</b>	Suggested Readings: -Using Layers in the graph composition -Different types of brushes -Opacity, transparency and paints -Filters for applying effects -Harmony, Contrast and balance in the composition Workshops for implementing what is explained in the readings Videos: composition and Psychology presentation; Working with brushes and digital filters		3 hours	32%
<b>Projecto</b>	3D design layout and final composition, typography and other elements involved in the submission of the final project		4 hours of workshops – final project	47%
<b>Total training hours</b>			9	
<b>Total ECVET points</b>			0,68	



ECVET Unit: Layout and Graphic composition (II)				
Reference Qualification:	Expert on processing and Layout of Graphic Elements in Pre-impression			
Module Title	AUDIVISUAL and MULTIMEDIA			
Module Type	Sector-specific			
Module Theme	Audiovisual and multimedia arts			
Training Methods			Training hours	Weight
<b>Instructor-led/Classroom-based</b>	Theoretical learning	Layers and treatment Brushes, filters Tools for retouching: Patch, Focus and blur	0,5 hours	5%
	Practical learning	Graphic Composition and layout to present a product  Resolution of doubts arising in e-learning workshops Software used: Photoshop, PowerPoint	1,5 hours of individual working / exercises to be reviewed by teacher	16%
<b>E-learning</b>	Suggested Readings: -Using Layers in the graph composition -Different types of brushes -Opacity, transparency and paints -Filters for applying effects -Harmony, Contrast and balance in the composition  Workshops for implementing what is explained in the readings  Videos: composition and Psychology presentation; Working with brushes and digital filters		3 hours	32%
<b>Projecto</b>	3D design layout and final composition, typography and other elements involved in the submission of the final project		5 hours of workshops – final project	47%
<b>Total training hours</b>			10	
<b>Total ECVET points</b>			0,75	