

## UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Architettura		
ACADEMIC YEAR	2018/2019		
BACHELOR'S DEGREE (BSC)	INDUSTRIAL DESIGN		
SUBJECT	COMPUTER DESIGN AND REPRESENTATION		
TYPE OF EDUCATIONAL ACTIVITY	A		
AMBIT	50233-Formazione di base nella rappresentazione		
CODE	15331		
SCIENTIFIC SECTOR(S)	ICAR/17		
HEAD PROFESSOR(S)	DELL'ARIA STEFANO	Professore a contratto	Univ. di PALERMO
	AVELLA FABRIZIO	Professore Associato	Univ. di PALERMO
	GIAMMUSSO FEDERICO MARIA	Professore a contratto	Univ. di PALERMO
OTHER PROFESSOR(S)			
CREDITS	12		
INDIVIDUAL STUDY (Hrs)	204		
COURSE ACTIVITY (Hrs)	96		
PROPAEDEUTICAL SUBJECTS			
MUTUALIZATION			
YEAR	1		
TERM (SEMESTER)	Annual		
ATTENDANCE	Not mandatory		
EVALUATION	Out of 30		
TEACHER OFFICE HOURS	AVELLA FABRIZIO		
	Tuesday 10:00 13:00		

DOCENTE: Prof. FABRIZIO AVELLA- Le PREREQUISITES	None
LEARNING OUTCOMES	<ul> <li>Knowledge and understanding skills</li> <li>The student will need to know the methods of representation, the construction of Flat and three-dimensional figures and manual representation techniques computer.</li> <li>Ability to apply knowledge and understanding</li> <li>The student must know the simple and complex geometric forms. He will be able to handle methods and techniques of representation. The student will have to use the computerized procedures suitable for building models of surfaces and solids and manage their flat and three-dimensional representation. He will also need to know the shading and rendering techniques. Judgment autonomy</li> <li>The student will be able to choose which modeling methods, of projection and which techniques will be the most suitable for the representation. Communicative Skills</li> <li>We want to bring the student to know how to convey, using their own codes of the drawing discipline, the description of the design project. Learning Skills</li> <li>At the end of the course the student will be able to know and apply the criteria of the representation by means of the project.</li> </ul>
ASSESSMENT METHODS	Of representation by means of manual procedures and informatiche.The oral test consists of an interview, and in the presentation of drawings, aimed at ensuring the possession of the competences and the disciplinary knowledge provided by the course; The evaluation is expressed in thirtieths.Examining will have to answer at least two or three questions posed orally, on all parts of the program, with reference to the suggested texts.Applications will tend to verify: a) the knowledge and understanding acquired; B) 
	<ul> <li>A) Advanced knowledge of topics and critical understanding of theories of the principles of discipline</li> <li>B) Advanced ability to apply knowledge and solve problems also proposed in an innovative way</li> <li>C) Full ownership of specific language</li> <li>D) Capacity to organize work autonomously and innovatively</li> <li>26 - 29</li> <li>A) Comprehensive and specialized knowledge accompanied by awareness criticism</li> <li>B) Complete ability to apply acquired knowledge and to develope Creative solutions to abstract problems</li> <li>C) Good command of specialist language</li> <li>D) Ability to organize work autonomously</li> </ul>
	<ul> <li>22 - 25</li> <li>A) Knowledge of principles, processes and general concepts of teaching</li> <li>B) Basilari has the ability to apply methods, tools, materials and information related</li> <li>teaching</li> <li>C) Basic mastery of specialized language</li> <li>D) Basilari has the ability to organize the work autonomously</li> <li>18-21</li> <li>A) Minimum knowledge of the main subjects of the teaching</li> <li>B) Minimum ability to apply the acquired knowledge independently</li> </ul>
	C) Minimal mastery of technical language D) Minimal ability to organize the work autonomously
EDUCATIONAL OBJECTIVES	The course aims to provide the student with the knowledge and application tools in order to be able to represent architectural and architectural objects, both with techniques manuals that with computer techniques, knowing the methods of rojection and presentation and techniques suitable for communicative purposes requests.
TEACHING METHODS	Lectures, exercises.
SUGGESTED BIBLIOGRAPHY	Avella F., Elementi teorici per il disegno informatico, Janotek, L'Aquila 2009 Docci M., Gaiani M., Maestri D., Scienza del disegno, Citta' studi edizioni, Novara 2011

## **SYLLABUS**

Hrs	Frontal teaching
56	<ul> <li>8 Monge Projections</li> <li>8 Assonometric projections</li> <li>8 Perspective projections</li> <li>8 Flat geometry</li> <li>8 Geometry of Surfaces</li> <li>8 Digital Modeling</li> <li>8 Rendering Techniques</li> </ul>
Hrs	Practice
32	<ul> <li>8 Double orthogonal projection of solids</li> <li>8 Assonometry of solid systems</li> <li>8 Digital modeling of an object</li> <li>8 Interior rendering</li> </ul>
8	8 Perspective constructions

DOCENTE: Prof. FEDERICO MARIA GIAI PREREQUISITES	None
LEARNING OUTCOMES	Knowledge and understanding skills
	The student will need to know the methods of representation, the construction of Flat and three-dimensional figures and manual representation techniques computer. Ability to apply knowledge and understanding The student must know the simple and complex geometric forms. He will be able to handle methods and techniques of representation. The student will have to use the computerized procedures suitable for building models of surfaces and solids and manage their flat and three-dimensional representation. He will also need to know the shading and rendering techniques. Judgment autonomy The student will be able to choose which modeling methods, of projection and which techniques will be the most suitable for the representation of a project. It will also be set to choose the scale of adeguate representation, appropriate techniques and criteria for representation. Communicative Skills We want to bring the student to know how to convey, using their own codes of the drawing discipline, the description of the design project. Learning Skills
	At the end of the course the student will be able to know and apply the criteria Of representation by means of manual procedures and informatiche.
ASSESSMENT METHODS	The oral test consists of an interview, and in the presentation of drawings, aimed at ensuring the possession of the competences and the disciplinary knowledge provided by the course; The evaluation is expressed in thirtieths. Examining will have to answer at least two or three questions posed orally, on all parts of the program, with reference to the suggested texts. Applications will tend to verify: a) the knowledge and understanding acquired; B) the ability to elaborate, c) the possession of adequate exhibition capacity, d) the autonomy of judgment Distribution of votes: 30 - 30 and praise
	<ul> <li>A) Advanced knowledge of topics and critical understanding of theories of the principles of discipline</li> <li>B) Advanced ability to apply knowledge and solve problems also proposed in an innovative way</li> <li>C) Full ownership of specific language</li> <li>D) Capacity to organize work autonomously and innovatively</li> </ul>
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