Course title: Descriptive Geometry

Course Basic Information	
Academic Unit:	**Faculty of Civil Engineering**
Course title:	**Descriptive Geometry**
Level:	**Bachelor**
Course Status:	**mandatory**
Year of Study:	**1st year**
Number of Classes per Week:	**2+2**
ECTS Credits:	**6**
Time /Location:	**According to the timetable**
Teacher:	**prof. asoc. dr. Arta Basha-Jakupi**
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Course Description:	This course is an intensive introduction to geometrical disciplines in architecture that affect the reciprocity between drawing and modeling in the design process, taught primarily through a series of weekly or two-week exercises. The pedagogical goal of the course is twofold, theoretical and graphical. The course is developed through theoretical and practical lessons, the content of which is initially done by the subjects of descriptive geometry and geometric perspectives, and then, as they acquire the main concepts, they will be treated in the framework of projects. The conceptual basis of each exercise is the geometric principles that lie at the core of each technique, by "generalizing" the specific technique to show for its generative possibilities in wider contexts.
Course Goals:	Basic preparation for professional and technical presentation of three-dimensional forms, architectural designs as well as development of capabilities to understand three-dimensional space and the spatial thinking in context of articulating elementary concepts in the profession of architecture. The course belongs in the group of preparatory subjects and enables gaining of basic knowledge for further studies in the subject of Construction.
Expected Learning Outcomes:	To provide the students with the main contents of the descriptive geometry and its application so that they can translate the geometric patterns of the three dimensions of architecture into normatively correct representations. - be able to make a link between reality and its measurable graphical model. This knowledge is essential to understanding space and its representation in two-dimensional support. The student will also possess the basic knowledge to master all drawing tools. - The application of various methods of representation, made by the study of descriptive geometry and manual drawing practice, will allow students to develop their own graphical language and expression in the specific field of architecture. - Developing skills for understanding two dimensional and three-dimensional spaces and spatial thinking

Student Workload (should be in compliance with student's Learnign Outcomes)			
Activity	**Hours**	**Day/ Week**	**Total**
Lectures	2	15	30
Theory/ Lab Work/Exercises	2	15	30
Practical Work	1	15	30
Consultations with the teaher			
Field Work	0.5	14	7
Test, seminar paper			
Homework	2	2	4
Self-study (library or home)	2	15	30
Preparation for final exam	1	15	15
Assessment time (test, quiz, final exam)	15		15
Projects, presentations, etc.	2	2	4
Total			**150**

Teaching Methods:	Teaching method of the course consists in giving lectures and making exercises, weekly for particular study units, doing graphic works and models for defined study units.
Assessment Methods:	Individual assignments completed in class and at home 30%; Attendance 10%, Tests 60%; in case they don't pass the test, Exam 60%.
Primary Literature:	The Projective Cast: Architecture and Its Three Geometries. MIT Press, 2000 Ching, F., & Steven P. J., (2010) Design Drawing. 2nd ed. Wiley Cohen, P. S., (2001) Contested Symmetries and Other Predicaments in Architecture. Princeton Architectural Press
Additional Literature:	Pottmann, H, Andreas A.,(2007) et al. Architectural Geometry. Bentley Institute Press. G.R. Bertoline, E.W. Wiebe, C.L. Miller, L.O. Nasman, (1995) Engineering Graphics Communication. R.D. Irwin Inc., Chicago, Chapter 11, pp. 597–695. Flamur DOLI,1990, Gjeometria Deskriptive

Designed teaching plan	
Week	**Title of the Lecture**
Week 1:	*Introduction. Projections methods. Projection of point in a plane. Projection of point in two planes - quadrant. The projection of the point in the respective quadrants*
Week 2:	*Projection of Point in Three Planes-Octants, The projection of the Point in the respective Octant.*
***Week 3*:**	*Line - Projections of Line*
Week 4:	*Projections of Line in Arbitrary and Special Positions.*
Week 5:	Line Intersection with the Projection Planes, Line Imprint in Projection Plane
***Week 6*:**	Projections of the plane with arbitrary position. Projections of the plane with special position.
Week 7:	*Projections of the plane in which lays a line and one point. Projections of the plane given with line in particular position. The parallels the plane. Horizontal plane. Frontal plane. Side Plane.*

Week 8:	Projections of plane given by the Triangle. The use of first and second parallel.
Week 9:	Projections of the plane given with the intersection of two lines. Projections of plane given with two parallel lines.
Week 10:	Projection of two intersected planes. Intersection of the line with arbitrary plane.
***Week 11*:**	Transformation – changing of the projection planes. Transformation of the point. Transformation of the line. Transformation of the triangle.
***Week 12*:**	Rotation. The rotation of the point. The rotation of geometric shape. Determining the true dimension of the line, and the angles created from the line with projection planes.
***Week 13*:**	Method of falling-fitting of the arbitrary and projection plane.
***Week 14*:**	Intersection of polyedric bodies. Intersection of the pyramid with the projection plane.
***Week 15*:**	Intersection of the pyramid with arbitrary plane. Drafting the envelope of the pyramid

Academic Policies and Code of Conduct
We start and finish class on time. *Tools used during class must be cleaned and stored away at the end of class.* *Mobile/smart phones, and other electronic devices (e.g. iPods) must be turned off (or on vibrate) and hidden from view during class time.* *Laptop and tablet computers are allowed for quiet use only; other activities such as checking personal e-mail or browsing the Internet are prohibited.*

Note | If a student has more than 3 class assignments evaluated below 50% he/she loses the right on taking the final exam. Evaluation is done from 0-100 %.