

ECTS CATALOGUE WITH LEARNING OUTCOMESUniversity of Montenegro

Faculty of Civil Engineering / Građevinarstvo (2017) / Tehničko crtanje

| Prerequisites | There is no conditionality by other exams. |
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| Aims | To acquire basic knowledge of the elements of technical drawing; understanding/reading and independent production of technical drawing; presenting 3D objects on 2D media (paper or computer monitor), using classic drawing tools or the Auto Cad software package. |
| Lecturer / Teaching assistant | Marija Jevrić |
| Metdod | Lectures and consultations |
| Week 1, lectures | Introduction to technical drawing; classic drawing tools; types of technical lines; scale; standards in technical drawing |
| Week 1, exercises | |
| Week 2, lectures | Type and purpose of lines; technical letters; graphic markings and symbols in engineering drawings. |
| Week 2, exercises | |
| Week 3, lectures | Methods of 3D object representation: orthogonal and central projection and axonometry. |
| Week 3, exercises | |
| Week 4, lectures | Types of dimensioning and dimension elements; dimensioning rules; hatching. |
| Week 4, exercises | |
| Week 5, lectures | Types of construction projects, their content and requirements; project composition |
| Week 5, exercises | |
| Week 6, lectures | Drawing of roads, buildings, construction sites, installations |
| Week 6, exercises | |
| Week 7, lectures | Basic geometric constructions and transformations |
| Week 7, exercises | |
| Week 8, lectures | 1st part of the exam |
| Week 8, exercises | |
| Week 9, lectures | Introduction to Auto Cad; interface, elements and initial settings |
| Week 9, exercises | |
| Week 10, lectures | Coordinate systems, grid and OSNAP functions |
| Week 10, exercises | |
| Week 11, lectures | Basic commands for drawing lines, polygons, curves and polylines |
| Week 11, exercises | |
| Week 12, lectures | Basic commands for modifying and transforming objects |
| Week 12, exercises | |
| Week 13, lectures | Dimensioning, text entry, hatch |
| Week 13, exercises | |
| Week 14, lectures | Blocks, layers, preparation for printing |
| Week 14, exercises | |
| Week 15, lectures | 2nd part of exam |
| Week 15, exercises | |
| Student obligations | To attend lectures, do graphic papers and sit their exams. |
| Consultations | Mon, 12-13h Thu, 12-13 h |
| Workload | Weekly 3.0 credits \times 40/30 = 4 hours Total workload to the course: 3.0 \times 30 = 90 hours |
| Literature | |
| Examination metdods | The forms of knowledge testing and grading: Assessment is carried out continuously throughout the |



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| | semester and the final exam. If the student shows a minimally sufficient level of knowledge during the semester can earn 51/100 points. |
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| Special remarks | |
| Comment | Additional information can be obtained at the present teaching staff, Head of the study program, and at Vice Dean for academic affairs. |
| Learning outcomes | After passing this exam, the student will be able to: 1. Draw a clear, precise, unambiguous and aesthetically appropriate technical drawing, and imagine the drawn object in space, as well; 2. Know all elements of the technical drawing, as a basis for the preparation of project documentation and independently drawing and understanding of it; 3. Graphically represent 3D objects and details using standards and rules of technical drawing, with the help of classic tools or computer-aided drawing. |