**SYLLABUS**

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| **I. GENERAL DATA ON SUBJECT COURSE** |
| code and title of subject course (in Estonian and English) | **SD.067 Technical graphics I***Insenerigraafika I* |
| academic year, term, form of studies | 2019/20 spring term, daytime  |
| curriculum, speciality and module where the subject belongs to | Erasmus+ module for exchange students |
| volume of subject (ECTS) | 3.0 ECTS |
| form of control | Non-differentiated assessment |
| workload and format of course | Lectures, practice sessions, independent work and testsContact studies: 32 hrsIndependent work: 46 hrs |
| language of instruction | English |
| additional information (prerequisites for enrolment for course, restrictions on participating in the course, etc) | Knowledge of English at upper-intermediate level (CEF B2) |
| lecturer | Karl-Erik Seegel |

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| **II. THE GOAL, LEARNING OUTCOMES AND ABSTRACT OF SUBJECT COURSE** |
| goal of subject course | The aim of the course is providing primary knowledge to accomplish technical drawings with modern CAD software (Solid Edge, Fusion 360) |
| learning outcomes | Student having passed the course: * is able to execute technical drawings on computer with selected CAD software;
* is able to accomplish working drawings of details in 2-D (Draft);
* is able to make models of various machine building details with 3-D modelling tool (including making the detail models from sheet metal in sheet metal treatment environment), to process them and to make working drawings of 3-D models;
* is able to accomplish 3-D models of various easier assemblies with creating necessary interrelationships between details in assembly environment, and to make their assembly drawings in projection environment
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| abstract of subject course  | Projection environments, sheet formats. Menus, commands and accomplishment of drawings in 2-D environment. Shifting, rotation, reflection, scaling of objects. Accomplishment of models with 3-D tools: the bodies with protrusions, indents and undercuts of various shape, the details with threads and ribs. Accomplishment of working drawings of 3-D models (elevations, sections, local sections, local elevations, dimensioning of drawings, surface roughnesses). Accomplishment of models in sheet metal treatment environment (bending, tensile and flanged details).Developments. Accomplishment of simple assembly in assembly environment, correlations. Execution of technical drawings. Terminal requirement is the proficiency of accomplishment of technical drawings both with 2-D (Draft) and 3-D modelling tools. |

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| **III. GRADING SYSTEM AND CRITERIA** |
| prerequisites to be allowed to take examination /preliminary examination | 1. Home works must be submitted by portfolio and rated positively (1…5).2. Classroom tests must be passed positively (1...5). |
| formation of examination /preliminary exam mark | 1. **Evaluation method:** graded preliminary in classroom and homework portfolio.2. **There are pre requirements to get the final mark**:a) Home works must be submitted by portfolio and rated positively (1…5).b) Classroom tests must be passed positively (1...5). |
| opportunities for settling arrears | The homework that has got the mark 0 must be amended and resubmitted until getting a positive mark (1... 5).Unsuccessful tests can be repeated. |

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| **IV. TIMETABLE AND LIST OF TOPICS** |
| WEEK OF YEAR | WORK FORMAT | TOPICS |
|  |  | to be completed |
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| **V. STUDY MATERIALS** |
| 1. Available in e-learning system Moodle
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