



## Course Specification Document

<b>Title</b>	Engineering Drawing
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<b>Credits</b>	2 ECTS
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<b>Aims</b>	This course aims to provide the student with the necessary knowledge to understand the basic principles and techniques of engineering drawing, enabling him to read and comprehend technical drawings accurately and prepare them according to the established standards in this field.
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### Intended learning outcomes

On successful completion of this course, the student will be able to:

- Recognize the basics of engineering drawing and its applications in engineering fields, especially mechanical engineering, and what it represents for the engineer (a tool for professional communication, investigation and understanding of information).
- Understand the principles of preliminary drawing, line drawing, shape description, drawing projections, sectors, sections, ... .
- Understand the principles and guidelines for placing geometric dimensions on technical drawings.
- Understand the methodologies for drawing and describing holes, threaded shafts, screws, as well as the procedures for assembling mechanical components.
- Draw schematics for complex pieces that contain many internal details, such as holes and cavities, based on the concepts of sectors and segment.
- Prepare detailed engineering plans for individual pieces and assemblies.
- Read, understand and interpret engineering drawings and technical bulletins for designs and equipment.

### Syllabus

- **Projection principles:** The principle of cylindrical parallel projection, drawing projections and arranging them on plates, drawing projections of pieces with flat surfaces, drawing projections of complex pieces with inclined surfaces, types of lines, completing projections based on their compatibility, dimensions and dimensions of drawing plates.
- **Sections and profiles:** Simple sections, special sections: (nerve sections, sound sections, thin sections), parallel level sections, intersecting level sections, local or partial sections: (round sections, external sections).
- **Dimensioning (Quotation):** Basic elements necessary for dimension description, methods of dimensioning, special cases of dimensioning.
- **Description of holes, axes, and screws:** Types of threads, metric thread specifications, expressing threaded holes in technical drawings and how to draw their sections, expressing axes in technical drawings and how to draw their sections, describing screws, assembly drawing.