

Computer graphics (IInd Year of study, IIIth Semester)

Credit value (ECTS) 5

Course category

Domain Fundamental

Course holder:

Assoc. Prof. Dr. Eng. Petru Marian CÂRLESCU

Discipline objectives (course and practical works)

The course aims to acquire the basic knowledge on the correct use by students of vector graphics programs (SolidWorks, Curve Expert, PowerPoint, Prezi) using a computer. Also, a special importance is given to the students' skill with the notions of graphics specific to the technical information: images, drawings, graphs, diagrams.

The practical works aim to familiarize students with specific programs for designing equipment and technologies in the agri-food industry using a computer. Particular emphasis is placed on developing the skills to create, process and use graphic information in engineering activities.

Contents (syllabus)

Course (chapters/subchapters)
General considerations regarding the object of the computer-aided graphics discipline and the graphical interfaces of the specific software.
2D graphics in SolidWorks
3D graphics in SolidWorks
Graphics of technical drawings in SolidWorks
Basics on Computer-Aided Design: CAD.
Graphical representations specific to technical information: images, drawings, graphs, charts.
Graphics using PowerPoint and Prezi.
Steps for making presentation of projects using specific software.

Practical works
General training for NTN and PSI; Symbols used in the technical drawing for equipment and machinery specific to the agro-food industry.
Computer-aided design. SolidWorks (I) - part 2D, 3D.
Computer-aided design. SolidWorks (II) - assembly 3D.
Computer-aided design. SolidWorks (III) - drawing 2D.
Use of graphics processing software. AdobePhotoshop, Excel, CurveExpert.
Use of graphical presentation tools. Power Point and Prezi.
Final colloquium of knowledge evaluation.

Bibliography

1. Cârlescu, P. - *Proiectare asistată de calculator - SolidWorks*, Suport de curs 2017.

2. Cârlescu,P. -*Modelarea și simularea numerică a proceselor fizice industriale*, Ed. Performantica, Iași, 2005.
3. Cârlescu P. – *Procese și operații în industria alimentară*, vol. I, Ed. PIM Iași, 2016.
4. Cârlescu, I., Cârlescu P. – *Arta prezentării rezultatelor științifice*, Ed. PIM, Iași, 2016.
5. Stănescu Oprișa P.D. – *Simularea numerică a proceselor de ardere cu FLUENT*, Ed. Politehnica, București, 2001.
6. Popescu D. – *Sisteme 3D CAD pentru proiectare mecanică*, Ed. Aius PrintEd, Craiova, 2009.
7. Ciobanu, L. – *Grafică asistată de calculator*, Politehniun, Iași, 2008.
8. Teodosiu C. – *Modelarea și simularea sistemelor în domeniul instalațiilor pentru construcții*, Ed. MatrixRom, București, 2007.
9. Curteanu S. – *Tehnologia informației. Partea I. Curs și aplicații*, Tipografia UT, Iași, 2004.
- 10.***** - *Using ADOBE PHOTOSHOP CS6. Help.*
- 11.***** - *MS Office Power Point 2016 - instrucțiuni de utilizare, Help.*
- 12.***** - *MS Office Excel 2016 - instrucțiuni de utilizare Help.*

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Writing examination	60%
Appreciation of the activity during the semester	Assessment during the semester of a project on a computer - practical application and final laboratory colloquium. (Presentation of the project).	40%

Contact

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