



Major field of study:
Level of education:
Educational profile:
Specialisation:

Management and Production Engineering
1st degree studies (Bologna first cycle)
General academic
Computer Science in Management and Modelling

The specialisation description:

The specialisation "Computer Science in Management and Modelling" is addressed to students who are interested in widening their knowledge regarding the application of computer science methods and techniques in both solving engineers problems and supporting management processes. The specialisation's study subjects enable students to has attained the skills and competence in usage of basic computer tools, computer programming and modelling.

The following subjects as regards computer tools are offered:

- Computer Hardware,
- Computer Graphics,
- Computer Network and Operating Systems.

The subject syllabuses cover the area of computer architecture, designing and programming of processors, methods and tools of computer graphics, and the use and administration of operating systems.

The following subjects as regards building computer models are offered:

- Algorithms and Data Structures,
- Designing of Relational Databases,
- Application of Numerical Methods In Mechanics,
- Methods of Discrete Analysis of Structures.

The subject syllabuses cover the area of practical aspects of applying computer methods to solve the problems of structural mechanics.

Computer programming subjects taught during basic studies are extended during the specialisation studies by:

- Object Programming in Graphical Environment,
- Internet Technologies.

The subjects cover the area of structured and object programming techniques, creating Windows-controlled application, and Internet application programming tolls and methods.

Students prepare their engineer diplomas in the following topics:

- database models for enterprise management processes,
- utilising Internet,
- solutions of engineer tasks.

Academic teachers that have scientific achievements as well as professional practice or business cooperation experience conducts the specialisation subjects. Multimedia presentations, professional software, and educational materials for students are used during lectures, lessons, seminars, and computer laboratory classes. Students can practice and master their skills working in groups as well as individually.



The graduate profile:

Knowledge and skills has been attained during study of the specialisation subjects are the continuation and extension of knowledge and skills that student had attained during education in the Management and Production Engineering field of study.

The graduate from specialisation of the Computer Science in Management and Modelling is equipped with the knowledge and practical skills as regards the use of computer tools and means in modelling and product design, computer simulation, production knowledge management issues, and the technological aspects of applying computer systems in enterprise management.

The graduate has knowledge, skills, and social competences that predestine to occupy independent positions in contemporary economical entities. The graduate is capable of performing interdisciplinary initiatives in solving technical and economic problems with a special use of computer tools and methods.

The specialisation tutor:

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