

DESCRIPTION OF THE COURSES

- Course code: ELR1273
- Course title: COMPUTER-ASSISTED ENGINEERING ACTIVITIES
- Language of the lecturer: Polish

| <i>Course form</i> | <i>Lecture</i> | <i>Classes</i> | <i>Laboratory</i> | <i>Project</i> | <i>Seminar</i> |
|--------------------------------------|----------------|----------------|-------------------|----------------|----------------|
| <i>Number of hours/week*</i> | 1 | | 2 | | |
| <i>Number of hours/semester*</i> | 11 | | 22 | | |
| <i>Form of the course completion</i> | written test | | hands-on test | | |
| ECTS credits | | | | | |
| Total Student's Workload | | | | | |

- Level of the course (basic/advanced): basic
- Prerequisites: BASICS of INFORMATICS
- Name, first name and degree of the lecturer/supervisor: Leszek Woźny, PhD
- Names, first names and degrees of the team's members:
 1. Anna Kisiel, PhD
 2. Paweł Żyłka, PhD
- Year:.....1..... Semester:.....2.....
- Type of the course (obligatory/optional): optional
- Aims of the course (effects of the course): Knowledge about various software packages supported engineering activity and ability to applications them in practice.
- Form of the teaching (traditional/e-learning): traditional
- Course description:

Lecture and laboratory tutorials are aimed at acquainting students with wide range of software products used in computer aided engineering available currently on the market, including not only word processors and spreadsheets but also CAD/CAM software, mixed signal circuit simulators, graphical engineering environments, matrix and symbolic mathematical packages, presentation graphics as well as Internet services and resources.
- Lecture:

| <i>Particular lectures contents</i> | <i>Number of hours</i> |
|--|------------------------|
| The lecture , given in a computer lab, is integrated with laboratory tutorial. | |
| 1. Word processors and spreadsheets | 1 |
| 2. Presentation graphics and graphing software packages. | 2 |
| 3. Statistical and symbolic math programs, CAD/CAM. | 2 |
| 4. Analog and digital signal and circuit simulators, high-level computer languages - overview. | 2 |
| 5. Graphical engineering environments, review and comparison of Operational Systems. | 2 |
| 6. Computer network services. Internet resources and computer scientific | 1 |

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| information systems. | |
| 7. Written test | 1 |

- Classes – the contents:
- Seminars – the contents:
- Laboratory – the contents:

Laboratory tutorial is aimed at demonstrating selected computer aided engineering software packages and making students capable of using them efficiently. SigmaPlot, MatLab, Agilent Vee, Internet services and basic MS Office software packages will be introduced. The tutorials will be project-oriented.

- Project – the contents:
- Basic literature:
 1. A. Zalewski, R. Cegiela, *MatLab – obliczenia numeryczne i ich zastosowania*, Nakom, Poznań 1996
 2. K. Pikoń, *Podstawy Internetu*, Helion, Gliwice 1997
 3. A. Marciniak, *Borland Pascal 7.0*, Wyd. Nakom, Poznań 1994-96
- Additional literature:
 1. G. Lynch, *Word 6 dla Windows dla opornych*, ReadMe, Warszawa 1995
 2. T. Chester, *Opanuj Excel 5Pl do Windows*, PLJ, Warszawa 1995
- Conditions of the course acceptance/creditation: Written and hands-on test passed.

* - depending on a system of studies