

Course Descriptions CiE

Course Title IT-Systems II

Course code IF-I-B05

Hours per week 4 H/W

1. Semester

Credits 5 ECTS-Credits

Objectives

Lectures will cover the common characteristics of modern IT systems:

- Information representation and coding
- Principles of the classic John von Neumann computer
- Control
- Principles of machine-level programming
- Basic data structures

Machine-level programming will be practiced during the practicum with the simulated MMIX model computer of Donald E Knuth.

Prerequisites none

Prerequisites none

Course objective The composition and functioning of an IT system from the register level to the operating system will be explained. Students will become familiar with the interface between hardware and software.

Recommended literature Anlauff, Böttcher, Ruckert: „Das MMIX-Buch“, Springer 2002

Method of instruction presentation and seminar work

Examination written exam

Language of instruction English

Name of lecturer Ruckert

Email ruckert@cs.hm.edu