



PHYSICS

FYD431 Programming in the C#-language Part II, 7.5 higher education credits

C#-programming II, 7,5 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Physics on 2009-11-24 to be valid from 2010-01-01.

Field of education: Science 100%

Department: Physics

Position in the educational system

Advanced course in the main subject physics. The course is given in the programme Computer-aided physical measuring techniques and as a freestanding course at University of Gothenburg. This course replaces the courses FYD430 and FY0440 and only one of these courses may be included in a degree.

Entry requirements

Entrance conditions to the course includes completed and passed course FYD421, C# programming I or the equivalent documented knowledge.

Learning outcomes

The aim of the course is that the student should obtain knowledge in programming of advanced modern measurement systems as well as structure of these.

After having gone through the course "C# programming II" the student should:

- be able to write programs in C# that handle and control advanced modern measurement systems.

- be able to handle in and output signals in modern measurement systems.
- have a basic understanding of good program structure and debugging of C# programs.
- be able to develop advanced measure and control programs by means of modern development tools.
- have good knowledge of control of instruments and be able to communicate with different hardwares and softwares.

Course content

The student utilises a Windows based C# development environment to develop advanced measure and control programs. The student will acquire knowledge in instrument control networks, communication with mikrocontrollers, different busses, protocols, gates, DAQ cards, etc

Form of teaching

Teaching is given in the form of lectures and laboratory sessions.

Language of instruction: Swedish

Assessment

For examination, it is required that the required number of laboratory sessions is completed and passed, as well as that a final assignment has been carried out and been presented. Depending on the degree of difficulty of the final assignment and submitted exercises, the grade Pass is given or Passed with distinction.

Grades

The grading scale comprises: Fail (U), Pass (G), Pass with Distinction (VG).
Report to course coordinator no later than a week after start of the course if ECTS grade is required.

Course evaluation

Course evaluation is carried out by students and teachers during the course.