



Faculty of Arts and Social Sciences

Syllabus

Course Approval

The syllabus was approved by the Faculty Board of Arts and Social Sciences on 12 February 2013, and is valid from the Autumn semester of 2013 at Karlstad University.

Course Code: ISGB08

Continuation course in programming, 7.5 ECTS Credits

(Fortsättningskurs i programmering, 7.5 Swedish credit points)

Degree Level: Bachelor

Progressive Specialisation: G1F (First cycle, has less than 60 credits in first-cycle course/s as entry requirements)

Language of Instruction

Swedish

Prerequisites

Information Systems 30 ECTS cr including the courses ISGA04 Basic Programming 7.5 ECTS cr and ISGB03 Object-Oriented modelling 7.5 ECTS cr or equivalent

Major Field of Study

IKA (Information Systems)

Learning Outcomes

Upon completion of the course, students should be able to:

- give an account of central theories and methods in object-oriented program development,
- apply object-oriented programming,
- handle exceptions,
- create graphic programs with event handling,
- demonstrate understanding of and implement some design patterns,
- apply good semantics by giving an account of inheritance, polymorphism, data encapsulating and data abstraction in a way that is relevant to the object-oriented design paradigm, and
- analyse and assess program code in respect to design and semantics.

Content and Form of Instruction

The course builds on ISGA04 Basic Programming 7.5 ECTS cr and covers components such as exception handling, event handling, graphic components and design pattern. The course is based on object-oriented analysis and design, involving concepts such as object, class, encapsulating, method, attribute, inheritance, polymorphism and constructors. Methods for constructing graphic interface are treated. Concepts such as components and events for creating user interface are discussed. Applications in the form of practical exercises on constructing graphic user interface are performed in an object-oriented programming language.

Instruction is in the form of a lecture and laboratory supervision.

Reading List

See separate document.

Examination

Assessment is based on a written exam and presentations of application assignments. All laboratory work must also be completed satisfactorily for a Pass grade.

Grades

One of the grades Distinction (VG), Pass (G), or Fail (U) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.

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