



Ladok Code: NUM011 Version: 1.0 Established by: Board of the department 2007-12-20 Valid from: Spring 2008

Education Cycle: First cycle Main Field of Study (Progressive Specialisation): Informatics (G1N) Disciplinary Domain: Natural sciences Prerequisites: General entry requirements set for the the programme Science without Borders. Subject Area: Informatics/Computer and Systems Sciences Grading Scale: Fail (U), Pass (G) or Pass with Distinction (VG)

### Content

This course will introduce students to the modeling of information systems from two points of view: the static, class-based view and the dynamic view of business processes. In each area we will look at the respective diagrams, such as class diagrams, object diagrams, use case diagrams and activity diagrams. The relevant modeling techniques will be presented in lectures and engrossed in concrete modeling assignments that will revolve around the same business case.

- Introduction to Object-Oriented Modeling
- Static views of a system
- Class diagram
- Object diagram
- Dynamic views of a system
- Business Processes
- Use cases and use case diagrams
- Activity Diagrams

### Learning Outcomes

Skills and capabilities

- Students shall be able to formulate class diagrams
- Students shall be able to analyse class diagrams
- Students shall be able to analyse requirements
- Students shall be able to formulate use-case models
- Students shall be able to perform object-oriented analysis

### Forms of Teaching

Lectures, exercises and home exercises. The course is in English.

### Forms of Examination

- Assignment 1 obligatory Failed/Passed
- Assignment 2 obligatory Failed/Passed
- Assignment 3 obligatory Failed/Passed

Assignment 4 - obligatory - Failed/Passed/Passed with distinction

Course grade = Passed if all assignments are passed, passed with distinction if assignments 1-3 are passed and assignement 4 is passed with distinction, otherwise failed

Student rights and obligations at examination are in accordance with guidelines and rules for the University of Borås.

#### Literature and Other Teaching Materials

# **Student Influence and Evaluation**

Questionnaire survey The evaluation is published according to the school's rules and will be the basis for future course planning.

## Miscellaneous

Open course. The course plan replaces the course plan Unified Modeling Language (NUMG01).