



**LUND**  
UNIVERSITY

School of Economics and Management

## **INFN50, Information Systems: Business Decision Management, 7.5 credits**

*Informatik: Business Decision Management, 7,5 högskolepoäng*  
**Second Cycle / Avancerad nivå**

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### **Details of approval**

The syllabus is an old version, approved by The Board of the Department of Informatics on 2013-09-20 and was last revised on 2016-06-03. The revised syllabus applied from 2016-08-29, autumn semester 2016.

### **General Information**

The course can be taken as part of the MSc Programme in Information Systems, or as a separate course.

*Language of instruction:* English

*Main field of studies*

Information Systems

Informatics

*Depth of study relative to the degree requirements*

A1N, Second cycle, has only first-cycle course/s as entry requirements

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### **Learning outcomes**

The aim of the course is that the students, after having completed the course, understand and can apply the principles of the Business Rules Approach (BRA) and Business Decision Management (BDM) for automated operational decision management through rule-oriented architecture, can put these principles in their context, can design rule-oriented digital decision services and can evaluate the benefits of this.

The goal is also that the students understand and can apply basic process design using Business Process Modelling and can connect operational digital decision services through Business Decision Modelling to decision points in the process flows in Business Information Systems (BIS) to control and support them. The basis for this is the separation of firstly operational decision management through Business Decision

Models and Business Rules (BR) and, secondly, operational process management through Business Processes (BP) by: 1) decision logic expressed through operational decision models and BR, and 2) the process logic expressed through BP.

Such an architecture is an approach to design the business rules of a BIS as logical, and put them into components that can handle declarative rule sets as decision services, as well as separate business decisions from business processes to achieve "separation of concerns" and systems flexibility. A BIS designed according to this therefore supports business owners' application of automatic operational Business Decision Management (BDM), as well as achieve greater system flexibility and business agility.

### **Knowledge and understanding**

For a pass on the course, the student shall demonstrate knowledge of and understanding of

- the role and significance of operational business decision automation in business and information systems and architecture
- decision logic as a key component in information systems
- the interconnection between decision logic and process logic, and the relevance of this for business and information systems and architecture
- BR as a key component for automation of decision logic in business and information systems and architecture
- BR quality assurance and governance processes.

### **Competence and skills**

For a pass on the course, students shall demonstrate competence and skills individually or in groups to

- identify requirements and design necessary models for Business Process Management (BPM), operational Business Decisions Management (BDM), and Business Rules Management (BRM) using relevant modelling syntaxes and tools to separate and connect decision logic and process logic
- harvest and formulate different types of BR in accordance with patterns for BR design
- apply different methods of quality assurance of BR
- process BR into BR-based executable digital decision services through specific technical solutions (e.g. BPMS/WfMS/ODM/BRMS).

### **Judgement and approach**

For a pass on the course, students shall demonstrate the ability to

- assess the advantages and drawbacks of BDM and Business Rules Approach (BRA) for Information Systems Design (ISD)
- assess and reflect over the application of BPM, BDM, and BRA to ISD from a learning perspective.

### **Course content**

The following topics will be covered:

- historical background of BDM
- system models and architectures for BPM, BDM, and BRA
- decision and process rules in business and information systems and architectures

- relevant syntaxes and tools for BPM, BDM, and BRA
- specification and design of operational decision models and BR
- methods to establish BR
- quality assurance of models and architecture
- rules, maxims and established practice.

## Course design

The teaching consists of lectures, classes, workshops and laboratory sessions. Workshops and laboratory sessions focus on practicing BDM theory taught in lectures and classes. The teaching is research based and presents examples from BDM-initiatives from different contexts.

The course includes compulsory components, which are stated in the schedule.

## Assessment

The assessment is based on written exam, take-home exam and a group case.

Re-examinations are offered in close conjunction with the first examination.

*Cheating* such as plagiarism, fabrication and falsification is considered a serious offence in higher education (see Chapter 8 of the Higher Education Ordinance). The disciplinary measures that may be taken as a result of such offences are caution or suspension for a limited period of time from the University.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## Grades

Marking scale: Fail, E, D, C, B, A.

**Grade** (Definition) Points or percentage out of maximum points. Characteristic.

**A** (Excellent) 85-100. A distinguished result that is excellent with regard to theoretical depth, practical relevance, analytical ability and independent thought.

**B** (Very good) 75-84. A very good result with regard to theoretical depth, practical relevance, analytical ability and independent thought.

**C** (Good) 65-74. The result is of a good standard with regard to theoretical depth, practical relevance, analytical ability and independent thought and lives up to expectations.

**D** (Satisfactory) 55-64. The result is of a satisfactory standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

**E** (Sufficient) 50-54. The result satisfies the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought, but not more.

**F** (Fail) 0-49. The result does not meet the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought.

To pass the course, the students must have been awarded the grade of E or higher.

## Grading rules and definitions

Grades are awarded according to a graded scale from A (highest) to F (lowest), with E as the minimum passing grade.

When the exam/assignment is not graded, the grades G (Pass) or F (Fail) will be applied.

### *Course grades*

When calculating course grades, the graded components will be weighted according to the following formula:

The number of credits for the exam is multiplied with the exam score. The total value is then divided by the total number of credits for the exams/assignments included. The resulting average is then rounded off to the nearest whole number. The number indicates the relevant course grade in accordance with the grading definitions above.

For exams/assignments which are graded and scored, the grades A to F will be used in accordance with the grading definitions above. The exam score will be used directly in the calculation.

For exams/assignments which are graded but not scored, the grades A to F will be used and converted as follows: A = 92, B = 80, C = 70, D = 60, E = 52.

Exams/assignments which are not graded but awarded with G (Pass) or F (Fail) will not be included in the calculation of the course grade.

## Entry requirements

General and completed courses: "Informatics: Introduction to Information Systems, 1-30 cr", "Informatics: Level 2, 31-60 cr" and "Informatics: Bachelor Degree Project, 15 cr" and further 15 credits informatics/information systems at Bachelor level or the equivalent. English 6/English Course B.

An exception for the general entry requirement in Swedish will be granted when the course is given in English.

## Further information

The Director of the MSc Programme in Information Systems has on 9 November 2012 decided that this course may be included in the programme.

The course may not be credited towards a degree together with INFN20 or equivalent courses.

It is compulsory to attend the introduction meeting, where a roll call will be taken. Absence without notification means that the admitted student will lose his/her seat on the course.

For transitional provisions with regard to previous courses, please contact the study advisor for an individual assessment.

If the course is discontinued, there may be limited opportunities for re-examination. Please contact the study advisor for information.

### *Amendments*

2015-06-05: Revised learning outcomes and course content and a new set of exams from Autumn term 2015.

2015-12-04: Added that the course includes compulsory components and that attendance on the introduction meeting is compulsory.

2016-06-03: New grading rules from Autumn term 2016.

## Subcourses in INFN50, Information Systems: Business Decision Management

Applies from H17

- 1701 Take-home exam, 2,0 hp  
Grading scale: Fail, Pass
- 1702 Case, 5,5 hp  
Grading scale: Fail, E, D, C, B, A

Applies from H16

- 1601 Written exam, 1,5 hp  
Grading scale: Fail, E, D, C, B, A  
Individual exam.
- 1602 Take-home exam, 1,5 hp  
Grading scale: Fail, Pass  
Individual exam.
- 1603 Case, 4,5 hp  
Grading scale: Fail, E, D, C, B, A  
Group case.