INFN45, Informatics: Business Intelligence, 7.5 credits
Informatik: Business Intelligence, 7,5 högskolepoäng
Second Cycle / Avancerad nivå

Details of approval

The syllabus is an old version, approved by The Board of the Department of Informatics on 2013-09-20 and was valid from 2014-01-20 , spring semester 2014.

General Information

Language of instruction: English

Main field of studies	Depth of study relative to the degree requirements
Information Systems	A1N, Second cycle, has only first-cycle course/s as entry requirements
Informatics	A1N, Second cycle, has only first-cycle course/s as entry requirements
Information Systems	A1N, Second cycle, has only first-cycle course/s as entry requirements
Informatics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

The objective of this course is for the students to achieve a profound understanding of BI systems in terms of its tools, current practices and impacts. The students should acquire knowledge on how to design BI solutions for different BI targets and users.

On completion of the course, students shall have achieved the following:

Knowledge and understanding

For a pass on the course, students must demonstrate knowledge about and understanding of

- key concepts and current practices of business intelligence
- the individual, organizational and societal impacts of BI systems
- analytical techniques widely used in business intelligence systems
- integration of business intelligence into decision-making processes
- big data and analytics
- data visualization techniques
- future trends of business intelligence

Competence and skills

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

- use BI systems and technology to support decision making
- build BI applications based on users' needs
- plan and implement BI system
- identify business and technical requirements for a BI solution
- apply the concepts and techniques to solving real-world BI problems
- perform data analyses

Judgement and approach

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

- critically evaluate the limitations and possibilities of BI technology
- evaluate BI impacts on decision-making process and on the organization

Course content

Business intelligence (BI) is a broad category of applications, technologies, and processes for gathering, storing, accessing, and analysing data to help business users make better decisions and take actions. Many companies recognise the importance of corporate data and information and decide to implement BI due to the increased competition and its significant impact on their performance. BI is one of the current "hot topics" and although the IT investments have decreased in the recent years, BI is still dominant in IT leaders' agenda and it is positioned as the most important of application and technology developments.

The BI targets differ in terms of their focus, scope, level of sponsorship, commitment, and resources required, technical architecture, impact on personnel and business processes, and benefits. In this course BI is explored at both the micro and macro levels. At the micro level, the course concentrates on design of BI solutions. At the macro level, implementing BI enterprise-wide is investigated. Issues related to BI data management (from separate BI databases to real-time data warehousing), meta-data, data quality, BI governance, and BI benefits are addressed. Contemporary BI trends will be covered. The trends include scalability (more data, more users, and more complex queries), pervasive BI, operational BI, and the BI-based organisation (how organisations can compete on analytics).

Course design

The teaching will be in the form of modules, consisting of lectures, seminars, labs and assignments.

Some course components and lectures might be mandatory. These are marked mandatory in the schedule.

Assessment

Examination will be carried out through the following compulsory tests:
- Written exam (individual), 3.0 credits, grading scale A-U
- Assignments (individual), 1.0 credits, grading scale G-U
- Laborations (group), 1.0 credits, grading scale G-U
- Projects (group), 2.5 credits, grading scale G-U

Re-exams will be held in close proximity to the ordinary examination period.

Academic misconduct such as cheating, 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 (and all the faculties of 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 % 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 (U) (Fail) 0-49. The result does not meet the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought.

Students have to receive a grade of E or higher in order to pass a course.

Entry requirements

Completed courses INFA16, INFB02 and INFK11 along with 15 credits in informatics/information systems at bachelor level or the equivalent. English B (advanced) proficiency.

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

Further information

Regarding transitional regulations, please contact the study advisor for an individual evaulation.

Should the course be discontinued, the possibility for examination might be limited. Please contact the study advisor for information.

Subcourses in INFN45, Informatics: Business Intelligence

Applies from V14

1301 Seminars, 1,0 hp
       Grading scale: Fail, Pass
1302 Assignments, 2,0 hp
       Grading scale: Fail, E, D, C, B, A
1303 Laborations, 1,5 hp
       Grading scale: Fail, Pass
1304 Projects, 3,0 hp
       Grading scale: Fail, E, D, C, B, A