

BITE's Course Contents 2006-2007

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Programming 2

- Code: ATK02F
- Extent: 5 cr (135h)
- Semester: 2
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Student is able to:

- Use basic problem-solving techniques with a programming language
- Have sufficient basis of Java and object-oriented programming for further studies
- Master basic programming terminology and concepts
- Understand the basics of object oriented concepts such as encapsulation and inheritance
- Utilize the API documentation
- Design and code small stand-alone Java applications, which meet simple requirements expressed in English

Course description

During the study unit programming skills and Java skills in program implementation will be extended. The classes will be a mix of lectures and supervised practical programming sessions in a computer classroom. The independent studies are based on weekly personal programming tasks.

Course contents

- Repetition of the basic Java Syntax
- Introduction to Object-Oriented Programming
- Basics of Event-Driven GUI Programming
- Introduction to File and Database Programming
- Using the Java Development Environment and the Java API Documentation

Prerequisites

Programming 1 (ATK01F)
Information Systems and OOA (SYS01F)

Course materials

Silpiö, K. Programming 2 Course Papers.
Deitel, H. M. & Deitel, P. J. Java: How to Program. Prentice Hall.
Horton, I. 2002. Beginning Java 2 - JDK 1.4 Edition or 1.5 Edition. Birmingham: Wrox Press.
Software used: J2SE Development Environment and its Documentation

Advisors

Birgitta Jansson-Koponen
Juhani Välimäki

Teaching and learning methods

64 h Contact hours (4 h/week)
71 h Independent studies (4-5h/week)
Compulsory attendance 80 % of the contact hours.

Assessment

2 hour practical test in the middle of the course followed by a 4 hour practical test at the end of the course. The distance learning exercises are also assessed. Both the test and distance learning exercises must be passed. Completion of a learning diary is mandatory.

50% Activity

50% Examination

Programming 3

- Code: ATK03F
- Extent: 4 cr (108h)
- Semester: 4
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Upon completion of this course the student will:

- Be acquainted with further programming language features and implementation architectures
- Have sufficient skills required for advanced studies in software implementation.
- Have an understanding of further object oriented concepts such as polymorphism
- Have an understanding of further Java issues such as exception handling, packages and JAR files
- Have a basic knowledge of terminology and concepts for Java multi-tier architecture and Java web applications
- Be capable to install, configure and use a simple web server for application development purposes
- Be able to design, code and test small Java web applications, which meet simple requirements expressed in English

Course description

During the study unit programming language and program implementation skills will be extended with comprehensive programming assignments. The classes will be a mix of lectures and hands-on Java programming sessions in a computer classroom. The course follows the curriculum of 2005.

Course contents

- Algorithm Design and Testing
- Further Object-Oriented Concepts
- Multi-Tier Architecture and Reusable Components
- Using the Java Class Library and Common Utility Classes
- Database Access Using JDBC
- Implementing Web Applications Using XHTML, Servlets, and JavaServer Pages

Prerequisites

Programming 2 (ATK02F), mandatory
Data Management (ATK04F)

Course materials

Course home page

Advisor

Kari Silpiö

Teaching and learning methods

Contact hours 40 h (4h per week)
Independent Studies 68 h
Group size 30 students

Assessment

Written exam (45%), two major assignments (45%), distance learning exercises (10%). Both the exam and assignments must be passed. Completion of a learning diary is mandatory.

Data Management

- Code: ATK04F
- Extent: 7 cr (189 h)
- Semester: 2
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Student is able to:

- Understand the data management needs in an operational information system
- Understands the database system development process
- Use interactive SQL to implement and maintain a relational database
- Read and understand the related material

Course description

During this course the student will learn the basic concepts of data management, relational database and SQL structured query language. A small relational database will be designed, defined and created. The course will focus on file- and database-based data management environments. The student will also learn about the standards and trends in the data management field.

Course contents

The main subjects are:

- Using databases in company

Database Project

- Code: ATK05F
- Extent: 5 cr (135 h)
- Semester: 4 second period
- Language: English
- Level: professional studies
- Type: free-choice

Learning outcomes

Student is able to:

- Understand the benefits of the DBMS Environment in comparison to the file-based system
- To design and implement a small relational database
- Generate a small database based application
- Understand the performance and security issues in a DBMS Environment

Course description

The course will enhance the contents of the Data Management course. The student will learn the main problems and solutions for creating a relational database for multi user environment. The course will focus on database creation and basic administration tasks. The course follows the curriculum of 2005.

Course contents

- Refreshing the SQL skills
- DBMS system and components
- Database design: conceptual, logical and physical
- Performance and security issues
- Indexes
- Transaction management
- Basics of Oracle Forms

Prerequisites

Data Management course (ATK04F) or Tieto ja tiedon varastointi (ICT03D).

Course materials

Course web-material

Connolly & Begg, Fourth edition 2005. Database Systems. A Practical Approach to Design, Implementation, and Management. Addison-Wesley. Software used: Rational Rose, Oracle RDBMS, Oracle Forms

Advisors

Juhani Välimäki
Outi Virkki
Seija Wolfer

Teaching and learning methods

64 h contact hours (8 h/week).
171 h independent studies (9 h/week)

Assessment

Activity 25 %
Mandatory assignments 75 %

.Net Programming

- Code: ATK06F
- Extent: 5 cr (135 h)
- Semester: 3
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

The students

- Know the fundamentals of .NET architecture and the essential features of C# programming language
- Will have basic knowledge of data base and web programming in .NET environment

Course description

The course includes a plenty of programming exercises in both Windows and Web environments. These exercises help the students to learn how to use the special features of C# programming language, .NET Basic Class Library and Visual Studio integrated development environment. MSDN Library documentation will be used for solving the programming problems. The first project work is an implementation of an application that includes algorithmic design, graphical user interface and file handling. The second project work is the study of data base programming in .NET environment. The course follows the curriculum of 2005.

Course contents

The major contents of the course are:

- .NET application development architecture
- Visual Studio.NET integrated development environment
- C# programming language
- User interface in Windows and Web environments
- Text file handling
- Data base programming/ADO.NET
- Web programming/ASP.NET/Web Services

Prerequisites

Prerequisites of the course are the completion of ATK01F and ATK02F courses or similar knowledge and skills.

Course materials

Learning material will be published on the web site of the course. MSND Library on-line documentation is also used as material. The following programs will be used in the course: .NET Framework 2.0 and Visual Studio 2005. The students have an option to install the programs and MSND Library on-line documentation in their own computers.

Advisors

Tuomo Ketomäki

Teaching and learning methods

Teaching methods are lectures and exercises. The course includes 64 contact hours, 4 h/week and the amount of independent study is 71 hours, ca. 4,5 h/week. The contact hours offer the students a possibility to get individual consultation and feed-back on the topics of the course. Teacher's solutions of the excercises will be published on the web site of the course in the week following the excercises.

Assessment

The assessment is based on the mid test in the middle of the course, the final test and the project works. The weight of tests are 30 % each and the weight of the project works are 20% each.

Mobile Applications

- Code: ATK07F
- Extent: 7 cr (189 h)
- Semester: 6 - 7
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

Course Description

The course introduces the students the main issues of development of mobile applications. What kind of architecture has WAP application and what are restrictions compared with conventional Web Application. The course also dealt with program development of small computing devices, like cellular phones and PDA devices, by means of J2ME platform and profiling of users and devices. The course follows the curriculum of 2005.

Course contents

- Mobile application development
- Usability
- WAP application development
- J2ME / MIDP application development
- Profiling

Prerequisites

Compulsory core and professional studies

Course materials

To be announced by the advisor

Advisors

Arvo Lipitsäinen

Teaching and learning methods

Contact hours
Independent studies

Assessment

Assignment
Seminar presentation

.Net Programming

- Code: ATK36F
- Semester: 4th
- Level and type: Professional Studies, Elective, Bite
- Credit units: 3 cu
- ECTS: 4,5 points
- Language: English

Description

The course will provide essential knowledge of Microsoft application development architecture .NET and skills to develop applications using it. The course follows the curriculum of 2003.

Essential contents

The basics of .NET architecture is discussed. The course includes a fair number of programming exercises that will be carried out either with command line compiling technique or as Visual Studio.NET solution. The students will learn the features of two .NET programming languages, C++ and VB.NET, C++ being the main language. Students will take a mid test in the middle of the course and a final test at the end of it. Both theoretical knowledge and programming skills are tested. The course includes a project work that is assessed as a part of the grade.

Prerequisite

Basic studies in programming and Developing Information Systems (SYS48F).

Aims and objectives

Participants should understand the essential features on .NET architecture and be capable of building applications using it.

Teaching and learning methods

Contact hours
Independent studies

Assessment

Exams 60%
Project work 40 %

Advisors

Tuomo Ketomäki

ABAP Programming

(SAP)

- Code: ATK37F
- Extent: 3 cr (81 h)
- Semester: 3-7
- Language: English
- Level: professional studies
- Type: free-choice

Learning outcomes

Student is able to:

- Understand the basic structure of an SAP System
- Use the ABAP Workbench Environment
- Write simple report programs using ABAP programming language
- Use the function library

Course description

The study unit familiarizes students with the SAP System and the ABAP Programming Language.

Course contents

- Introduction to the SAP System and SAPGUI user interface
- SAP Technology Infrastructure
- Fundamentals of the ABAP Programming Language, the ABAP Function Library and Open SQL

Prerequisites

Basic Programming and SQL skills

Course material

Course material in Blackboard

SAP AG. SAP Technology Infrastructure.

Keller, H., 2nd edition 2005. The Official ABAP Reference (Volume I and II). SAP Press.

Advisor

Seija Wolfer

Teaching and learning methods

35 Contact hours (5 h/week)

46 Independent studies and consultation (5-6h/week)

Assessment

Assignments 50 %

Final Exam 50 %

Mobile applications

- Code: ATK57F
- Semester: 6th to 7th
- Level and type: Advanced Professional Studies, Elective, Bite
- Credit units: 5 cu
- ECTS: 7,5 points
- Language: English

Description

The course introduces the students the main issues of development of mobile applications. What kind of architecture has WAP application and what are restrictions compared with conventional Web Application. The course also dealt with program development of small computing devices, like cellular phones and PDA devices, by means of J2ME platform.

Essential contents

- WAP architecture
- User interface of WAP application
- Development tools of mobile systems
- WML, WML Script
- WAP 2
- Multimedia messages
- J2ME and MIDP application development

Prerequisites

Compulsory basic and professional studies

Bibliography

To be announced by the advisor

Advisor

Arvo Lipitsäinen

Teaching and learning methods

Contact hours
Independent studies

Assessment

Assignment
Seminar presentation

Programming 1

- Code: ATK70F
- Extent: 6 cr (162 h)
- Semester: 1
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Student is able to:

- Solve simple programming problems
- Design the program logic with flowcharts
- Make Java programs based on the design
- Communicate design and programs using professional terminology

Course description

The Programming 1 and Programming 2 together form an introduction to programming. Programming 1 familiarizes the student with the task of programming, the general concepts of programming and limited concept of basic object oriented programming. This course gives an introduction to a modern programming language (Java) and the development environment it requires.

The weekly lectures give the theory basis. In the supervised laboratories students do individual and group work. Homework consists of personal programming tasks.

Course contents

- Programming as a profession and general concept of programming
- Planning, documenting and testing the logical flow of a program
- The basic concepts of programming languages
- Algorithm Design and Testing
- The basics of the Java programming language and its programming environment

Prerequisites

Previous experience of programming is not expected.

Course materials

Course material covers all the issues.

Programming 1 material, three parts

Java Text Books recommended for students who want to progress quicker with Java:

Deitel, H. M. & Deitel, P. J. 2005. Java: How To Program. 6th edition. Upper Saddle River, NJ: Pearson Education.

Horton, I. 2002. Beginning Java 2 - JDK 1.4 Edition or 1.5 Edition. Birmingham: Wrox Press.

Advisors

Juhani Välimäki

Birgitta Jansson-Koponen

Teaching and learning methods

80 h Contact hours; theory and exercises (5 h/week)

82 h Homework (5 h/week)

Compulsory attendance 80% of the contact hours.

Assessment

50% Activity

50% Examination

Introduction to Structured Documents

- Code: ATK73F
- Extent: 3 cr (81 h)
- Semester: 3
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The student:

- Learns to read W3C recommendations
- Can create valid XHTML documents, CSS-documents, XML documents and XSL transformations

Course description

The study unit introduces students to structured documents. The study unit is divided into four main themes:

- The student learns basic principles of structured documents and open information
- The student learns W3C HTML 4 and XHTML recommendations and CSS1 and CSS2 recommendations
- The student learns W3C XML recommendation and some other recommendations related to it
- The student learns W3C XSL transformations.

Course contents

Theme 1: The basic principles of structured documents and open information

- A short history of open information and structured documents.
- The basic principles of open information:
 - Content separated from structure
 - Media separated from coding
 - Data separated from protocols.
- The difference between structured and procedural documents.

Theme 2: W3C HTML 4 recommendation and some other recommendations closely related to it

- The main parts of W3C HTML 4.01 recommendation
- The main parts of W3C CSS2 recommendation
- The relationship between W3C HTML 4 and W3C XHTML 1.

Theme 3: W3C XML 1 recommendation and some other recommendations related to it

- The main parts of W3C XML 1.0 recommendation
- The basic principles of W3C XML Schema recommendations

Theme 4: W3C XML 1 recommendation

- The main parts of W3C XSLT 1.0 recommendation
- Transforming XML documents to XHTML documents

Prerequisites

Basic data processing skills

Course materials

HTML4 recommendation <http://www.w3.org/TR/html4/>

XHTML 1.0 recommendation <http://www.w3.org/TR/xhtml1/>
XHTML 1.1 recommendation <http://www.w3.org/TR/xhtml11/>
CSS1 recommendation <http://www.w3.org/TR/CSS1>
CSS2 recommendation <http://www.w3.org/TR/CSS21/>
XML 1.0 recommendation <http://www.w3.org/TR/REC-xml/>
XSL Transformations 1.0 recommendation <http://www.w3.org/TR/xslt>

Advisor

Markku Kuitunen

Teaching and learning methods

Contact hours 64 h, 4 weekly hours
Independent studies 17 h, 2 weekly hours

Assessment

Examination 1 33,5%
Examination 2 33,5%
Assignments 33 %

Software project B

- Code: ATK82F
- Semester: 6th - 7th
- Level and type: Advanced Professional Studies, Elective, Bite
- Credit units: 7 cu
- ECTS: 10,5 points
- Language: English

Description

The students will work in teams. Each team will produce for a customer a software system with up-to-date methodology and open software technology. The course follows the curriculum of 2003.

Essential contents

Students are divided into teams. Several software system concepts are introduced to the teams. Each team selects a software system concept and creates a project plan for it. The project plan includes requirements, analysis, design, implementation and test phases for the chosen software system. Quality assurance and usability requirement needs are considered. The software system is implemented according to the project plan.

Prerequisites

Programming 1 (atk70F)
Programming 2 (atk71F)
Programming 3 (atk84F)

Aims and objectives

Familiarize the student with modern iterative software system project. The students can use modern software development tools and modelling languages. The students learn to use up-to-date Java Internet and implementation technology and Oracle database technology.

Advisor

Markku Kuitunen

Bibliography

Bradley: The XML companion, Third edition, Addison-Wesley 2002
Quatrani: Visual Modeling with Rational Rose 2002 and UML, Addison-Wesley 2002

Teaching and learning methods

Contact lessons 100 hours
Group activity 120 hours
Independent studies 60 hours

Assessment

Software system and its documentation

Programming 3

- Code: ATK84F
- Semester: 4th
- Level and type: Basic Studies, Compulsory, Bite
- Credit units: 3 cu
- ECTS: 4,5 points
- Language: English

Description

During the study unit programming language and program implementation skills will be extended with comprehensive programming assignments. The classes will be a mix of lectures and hands-on Java programming sessions in a computer classroom. The course follows the curriculum of 2003.

Essential contents

- Program Design and Testing
- Language Framework
- Further Object-Oriented Programming Issues
- Class Library and Common Utility Classes
- Program Design with the Multi-Tier Architecture and Reusable Components

Prerequisite

Programming 2 (atk71f)
Data Management (atk72f)

Aims and objectives

The students will be acquainted with further programming language features and implementation architectures. The students will have sufficient skills required for advanced studies in software implementation.

Bibliography

To be announced later

Advisor

Birgitta Jansson-Koponen
Kari Silpiö

Teaching and learning methods

Contact hours 60 h
Independent Studies 60h
Group size 20 students

Assessment

A 4-hour final examination in a computer classroom. The programming assignments are also assessed (both the examination and assignments must be passed). Completion of a learning diary is mandatory.

Database Project

- Code: ATK88F
- Semester: 4th, second period
- Level and type: Free-choice Professional Studies
- Credit units: 3 cu (120 h)
- ECTS: 4,5 points
- Language: English

Description

The study unit familiarizes students with a larger Database Management System in multi user environment and its components. The student will learn how to design, create and manage a relational database. The course follows the curriculum of 2003.

Essential contents

SQL-92 statements, database design, creation, integrity rules, views, triggers and stored procedures. Tools for optimizing and analyzing database performance. Database transaction management. The Database Project Assignment will be carried out in teams of 3-4 students for the database platform used during the course.

Prerequisite(s)

Data Management course (atk72D, atk72F).

Aims and objectives

The course will enhance the contents of the Data Management course. The student will learn the main problems and solutions for creating a relational database for multi user environment. The course will focus on database creation and basic administration tasks.

Bibliography

Course handouts.

Connolly & Begg, Third edition 2002. Database Systems. A Practical Approach to Design, Implementation, and Management. Addison-Wesley.

Advisor

Seija Wolfer

Teaching and learning methods

Tutorials 50 h

Independent studies 70 h.

Assessment

Exam 50 %

Assignments 50 %.

Software Testing

- Code: ATK99F
- Extent: 3 cr (2 cu / 81 h)
- Semester: 4
- Language: English
- Level: Professional studies
- Type: Compulsory

Learning outcomes

The student

- Is familiar with the requirements of quality assurance and software testing from the supplier

English 2

- Code: ENG59F
- Extent: 1.5 cr
- Semester: 3
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The student

- Learns advanced English grammar
- Is able to apply it to texts related to the IT field

Course description

Students will work on grammar exercises from different areas of grammar and work with texts dealing with IT subjects.

Course contents

- Grammar exercises will be done in class, as will working with IT texts
- Short texts will be given as homework in which the students will correct errors in grammar, spelling, vocabulary, word order, etc.

Prerequisites

Students should have a basic grasp of English grammar to take this course.

Course materials

Materials will be provided by the instructor.

Advisor

Karl Robbins

Teaching and learning methods

16 contact hours. Students will attend class two hours a week with an additional three hours reserved for homework.

Assessment

Grading will be based on a final exam (50 %) and evaluation of homework and class participation (50 %).

English 1

- Code: ENG58F
- Extent: 3 cr (81 h)
- Semester:
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The student

- Learns specific areas of advanced English grammar

Course description

Students will work on grammar exercises from specific areas of grammar and correct the grammatical errors in sentences.

Course contents

- Grammar exercises will be done in class
- Sets of sentences will be given as homework in which the students will correct errors in grammar, spelling, vocabulary, word order, etc.

Prerequisites

Students should have a basic grasp of English grammar to take this course.

Course materials

Materials will be provided by the instructor.

Advisor

Karl Robbins

Teaching and learning methods

Students will attend class two hours a week with an additional three hours reserved for homework.

Assessment

Grading will be based on a final exam (50%) and homework and participation (50%).

Introduction to the Finnish Language 1

- Code: FIN01F
- Extent: 3 cr (81 h)
- Semester: 1
- language: English and Finnish
- Level: core studies
- Type: compulsory *

*Required only of foreign students in the Bite programme. The students, who are in the Bite programme and already know Finnish, can pass the course by attending a level test before the beginning of the course, and by obtaining the grade 4 or 5 from it.

Learning outcomes

The student:

- Gets an idea of the nature of Finnish language and learns strategic skills of learning Finnish
- Can understand and use simple sentences in easy everyday situations
- Can introduce oneself and others, ask what things cost, speak about weather, use expressions of time and tell about his/her home and family.

Course description

The course is an introduction to Finnish language and culture

Course contents

- Pronunciation
- Greetings
- Introducing oneself
- Nationalities
- Numbers, prices
- Clothing, colours
- What time is it?
- Conjugation of the verb 'olla'
- Weather
- Days of the week, months, seasons of the year
- Home, furniture
- Family
- To have, to have not

Prerequisites

No previous knowledge of Finnish.

Course materials

Heikkilä, S. & Majakangas, P. 2002. Hyvin menee! Suomea aikuisille. Helsinki: Otava. Chapters 1-5.

Advisors

Taija Hämäläinen
Tuula Jäppinen

Teaching and learning methods

Contact hours 32 h (4 h / week): oral and written exercises individually and in pairs, group work
Independent studies 49 h (6 h / week): homework and preparation for lessons and exams

Assessment

Attendance mandatory.

Active participation in lessons 20 %

Small tests and/or assignments 10 %

Final examination 70 %

Introduction to the Finnish Language 2

- Code: FIN02F
- Extent: 3 cr (81 h)
- Semester: 1
- Language: English and Finnish
- Level: core studies
- Type: compulsory *

*Required only of foreign students in the Bite programme. The students, who are in the Bite programme and already know Finnish, can pass the course by attending a level test before the beginning of the course, and by obtaining the grade 4 or 5 from it.

Learning outcomes

The student:

- Increases his/her knowledge of the basics of Finnish language and culture
- Can use verbs in different persons
- Can ask questions with question words and with the question suffix
- Is able to tell about work and free time activities in simple sentences
- Can tell if (s)he is sick and describe how (s)he feels
- Knows vocabulary for food and shopping

Course description

The course is a continuation of FIN01F. It is an introduction to the Finnish language and the Finnish society.

Course contents

- Verb conjugation in present tense, types 1 - 5
- Consonant gradation of verbs
- Asking questions with question words and with the question suffix
- Work, occupation
- Hobbies, free time
- Means of transport
- Going to doctor, health
- Food, shopping
- The partitive case of nouns

Prerequisites

Introduction to the Finnish Language 1

Course materials

Heikkilä, S. & Majakangas, P. 2002. Hyvin menee! Suomea aikuisille. Helsinki: Otava. Chapters 6-10.

Advisors

Taija Hämäläinen
Tuula Jäppinen

Teaching and learning methods

Contact hours 32 h (4 h / week): oral and written exercises individually and in pairs, group work
Independent studies 49 h (6 h / week): homework and preparation for lessons and exams

Assessment

Attendance mandatory.

Active participation in lessons 20 %

Small tests and/or assignments 10 %

Final examination 70 %

Finnish 3

- Code: FIN03F
- Extent: 3 cr (81 h)
- Semester: 2
- Language: English and Finnish
- Level: core studies
- Type: compulsory *

*Required only of foreign students in the Bite programme. The students, who are in the Bite programme and already know Finnish, can pass the course by attending a level test before the beginning of the course, and by obtaining the grade 4 or 5 from it.

Learning outcomes

The student:

- Can produce and understand brief everyday expressions in order to satisfy simple needs of a concrete type
- Can tell about his/her daily routine
- Can express his/her opinions
- Can ask for information
- Can deal with simple situations likely to arise whilst travelling

Course description

The course is a continuation of FIN02F.

Course contents

- Singular genitive case of nouns (Whose?)
- Consonant gradation and other changes (in the stem) of nouns
- Have to do -sentences
- Local cases of nouns (Where? Where from? Where to?)
- Expressing ones opinion
- Travelling
- Expressions of time
- Postpositions

Prerequisites

Introduction to the Finnish Language 1, Introduction to the Finnish Language 2

Course materials

Heikkilä, S. & Majakangas, P. 2002. Hyvin menee! Suomea aikuisille. Helsinki: Otava. Chapters 11 15.

Advisor

Taija Hämäläinen
Tuula Jäppinen

Teaching and learning methods

Contact hours 32 h (4 h / week): oral and written exercises individually and in pairs, group work.
Independent studies 49 h (6 h / week): homework, assignments and preparation for lessons and exam.

Assessment

Attendance mandatory.

Active participation in lessons 20 %

Small tests and assignments 10 %

Final examination 70 %

Finnish 4

- Code: FIN04F
- Extent: 3 cr (81 h)
- Semester: 2
- Language: Finnish
- Level: core studies
- Type: compulsory *

* Required only of foreign students in the BITE programme. The students who are in the BITE programme and already know Finnish can pass the course by attending a level test at the beginning of the course, and by obtaining the grade 4 or 5 from it.

Learning outcomes

The student

- Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters
- Can introduce in simple terms his/her own culture (e.g. how feasts are celebrated)
- Can describe aspects of his/her background and tell what he/she did in the past
- Can produce simple connected text on topics which are familiar or of personal interest.

Course description

The course is a continuation of FIN03F.

Course contents

- Imperative forms of verbs
- Passive forms of verbs (present tense)
- 3. infinitive of verbs
- Nominative plural of nouns
- The simple past tense of verbs
- Different situations in everyday life (vacation, shopping, in a post office, library etc.)

Prerequisites

Introduction to the Finnish Language 1, Introduction to the Finnish Language 2, Finnish 3

Course materials

Heikkilä, S. & Majakangas, P. 2002. Hyvin menee! Suomea aikuisille. Helsinki: Otava. Chapters 16-22.

Advisors

Taija Hämäläinen
Tuula Jäppinen

Teaching and learning methods

Contact hours 32 h (4 h / week): oral and written exercises individually and in pairs, group work.
Independent studies 49 h (6 h / week): homework, assignments and preparation for lessons and exam.

Assessment

Attendance mandatory.

Active participation in lessons 20 %
Small tests and/or assignments 10 %

Final examination 70 %

Finnish 5

- Code: FIN05F
- Extent: 3 cr (81 h)
- Semester: 3
- Language: Finnish
- Level: core studies
- Type: compulsory *

* Required only of foreign students in the BITE programme.

Learning outcomes

The student

- Becomes familiar with topics in business and ICT field
- Develops vocabulary and speaking skills, and also the knowledge of Finnish grammar

Course description

The course is designed to improve the student's knowledge of Finnish grammar, business and IT vocabulary.

Course contents

- Texts, conversations and presentations
- Finnish grammar: perfect tense, plural, comparison
- The students will also learn to write various documents in Finnish, for example an e-mail.

Prerequisites

Introduction to the Finnish Language 1, Introduction to the Finnish Language 2, Finnish 3, Finnish 4

Course materials

Heikkilä, S. & Majakangas, P. 2002. Hyvin menee! Suomea aikuisille. Helsinki: Otava.
Other material will be provided by the teacher.

Advisor

Tarja Paasi-May

Teaching and learning methods

Contact hours 32 h: oral and written exercises individually and in pairs, group work.
Independent studies 49 h: homework, assignments and preparation for lessons and exam.

Assessment

Active participation in lessons 20 %
Assignments 10 %
Examination(s) 70 %

Finnish 6

- Code: FIN06F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: Finnish
- Level: core studies
- Type: compulsory *

* Required only of foreign students in the BITE programme.

Learning outcomes

The student

- Becomes familiar with current topics in the business field through (simplified) newspaper articles and other up-to-date sources
- Develops vocabulary and speaking skills, and also the knowledge of Finnish grammar
- Learns to write various documents in Finnish (for example, memo, quotation letter, reclamation, advertisement and official forms)

Course description

The course concentrates on improving the student's

Finnish 7

- Code: FIN17F
- Extent: 3 cr (81 h)
- Semester: 4 - 7
- Language: Finnish
- Level: core studies
- Type: compulsory / elective / free-choice

Learning outcomes

The student

- Is able to write e-mails in Finnish
- Knows the basics of meeting techniques
- Can give a brief presentation of a company

Student's business vocabulary will be increased

Course description

This course is held at Helsinki School of Economics (Finnish Business Communication 1).

The course introduces the fundamentals of oral and written business communication in Finnish. It provides training in spoken and written communication fluency, grammatical accuracy, and business terminology. The grammar will be determined by the needs of the students.

Course contents

- E-mail
- Informative business presentations
- Meetings
- Memos
- Advanced Finnish grammar

Prerequisites

Common European Framework of Reference (CEF), minimum starting level: A2 (or Helias' course Finnish 6 with good marks). The student should master all basic structures of the Finnish language.

Course materials

Course materials provided by the teacher.

Advisors

Course coordinator: Marketta Majapuro, lecturer

Teaching and learning methods

Contact hours 32 h, mandatory attendance

Independent studies 49 h: homework, assignments and preparation for lessons and exams

Assessment

Assignments 20 %

Exams 50 %

Class contribution 30 %

Finnish 8

- Code: FIN08F
- Extent: 3 cr (81 h)
- Semester: 4 - 7
- Language: Finnish
- Level: core studies
- Type: compulsory / elective / free-choice

Learning outcomes

The student

- Can participate in a negotiation or argumentation discussion
- Can express his/her opinion
- Can write a memo and a report
- Knows the characteristics of persuasive language

Course description

This course is held at Helsinki School of Economics (Finnish Business Communication 2).

The course focuses on the fundamentals of oral and written business communication in Finnish. It provides training in spoken and written communication fluency, grammatical accuracy, and business terminology. The grammar will be determined by the needs of the students.

Course contents

- Product demonstrations
- Negotiations
- Memos
- Reporting
- Advanced Finnish grammar

Prerequisites

Common European Framework of Reference (CEF), minimum starting level: B1 (or Finnish 7 = Finnish Business Communication 1 at HSE)

Course materials

Course materials provided by the teacher.

Advisor

Course coordinator: Marketta Majapuro, lecturer

Teaching and learning methods

Contact hours 32 h, mandatory attendance

Independent studies 49 h: homework, assignments and preparation for lessons and exams

Assessment

Assignments 20 %

Exams 50 %

Class contribution 30 %

Work Placement

- Code: HAR03F
- Extent: 30 cr (810 h)
- Semester: 5
- Language: English
- Level: work placement
- Type: compulsory

Learning outcomes

The students:

- Familiarise themselves with the work placement organisation

Innovative Techniques In Group-Work

- Code: JOH54F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

After completing the course the student

- Has a general overview of the problem-solving process and its phases,
- Knows how to get use of oneÂ

Foreign Cultures Seminar

- Code: KAN01F
- Extent: 7 cr (189 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: compulsory, elective, Bite*

* Required only of native Finnish speakers in the Bite programme. Recommended for other students interested in cross-cultural business issues.

Learning outcomes

The student

- Increases awareness of cultural differences
- Learns to understand and take into consideration the importance of culture in his/her personal and working environments using the ICT industry as a general context

The business environment differs from country to country. It is important to understand a variety of factors shape the social and technical environment of a country.

Course description

An introduction to gaining a better understanding of different cultures, different levels, aspects of cultural variation, and the impact of culture on different areas of life. The emphasis is on the ICT industry.

Course materials

Gesteland, Richard R. 2002. Cross-Cultural Business Behavior Marketing, Negotiating, Sourcing and Managing Cultures. Copenhagen Business School Press.

O'Hair, Dan, Friedrich, Gustav W., Shaver, Lynda Dixon 1998: Strategic Communication in Business and the Professions. Houghton Mifflin.

Up-to-date articles

Advisor

Tarja Paasi-May

Teaching and learning methods

Contact hours

Assignments

Network-based learning

Team project

Assessment

Examination

Attendance

Assignments

Team project

Foreign Cultures Seminar

- Code: KAN68F
- Extent: 7.5 ects, 5 cu
- Semester : 4
- Language : English
- Level: Professional Studies
- Type : Compulsory, Elective, Bite*

* Required only of native Finnish speakers in the Bite programme. Recommended for other students interested in cross-cultural business issues.

Aims and objectives

The student

- Increases awareness of cultural differences
- Learns to understand and take into consideration the importance of culture in his/her personal and working environments using the ICT industry as a general context

The business environment differs from country to country. It is important to understand a variety of factors shape the social and technical environment of a country.

Course description

An introduction to gaining a better understanding of different cultures, different levels, aspects of cultural variation, and the impact of culture on different areas of life. The emphasis is on the ICT industry.

Course materials

Gesteland, Richard R. 2002. Cross-Cultural Business Behavior Marketing, Negotiating, Sourcing and Managing Cultures. Copenhagen Business School Press.

O'Hair, Dan, Friedrich, Gustav W., Shaver, Lynda Dixon 1998: Strategic Communication in Business and the Professions. Houghton Mifflin.

Up-to-date articles

Advisor

Tarja Paasi-May

Teaching and learning methods

Contact hours

Assignments

Network-based learning

Team project

Assessment

Examination

Attendance

Assignments

Team project

Business Accounting

- Study module: Business Accounting
- Part 1: Management accounting; Part 2: Financial accounting
- Code: LAS01F
- Extent: 4 credit points (108 h)
- Semester: 4
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The Students:

- Understand the role of accounting in different types of companies
- Are able to draw up operational plans for retail/wholesale and service companies, as well as analyze the performance of these companies
- Understand the fundamentals of financial and are able to carry out bookkeeping and prepare financial statements of small enterprises

Course description

The learning makes progress through active participation, independent reading and doing exercises.

Course contents

Part 1: Management accounting, following topics are covered:

- Cost terms and their use in decision making
- Cost-volume-profit analysis
- The basis for management controls.

Part 2: Financial accounting, following topics are covered:

- Double-entry bookkeeping
- Value-Added Tax
- Foreign Trade
- Financial statements
- Company types
- Salaries & social costs

Prerequisites

None

Course materials

Management accounting: Drury, C. 2006. Cost and Management accounting: an introduction, fifth edition. London: International Thomson Business Press. Lecture handouts available in Blackboard.

Financial accounting: Guide and lecture handouts available in Blackboard.

Advisors

Management accounting: Markku Eerola

Financial accounting: Juha Evokari

Teaching and learning methods

Contact hours 56 h

Exercises & assignments 32 h

Exam preparation 20 h

Assessment

Exams 70 - 80 %

Exercises and activity during the course 20 - 30 %

Marketing and Purchasing

- Code: MAR37F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: compulsory

Learning outcomes

The student:

- Is familiar with the current trends of both marketing and purchasing in the IT industries
- Is able to analyse various methods in decision making in both marketing and purchasing

Course description

The course emphasises the importance of considering both purchasing and marketing as pivotal factors in profitable business relations of an IT company. The effectiveness of handling the relationship between company and its suppliers as well as the company and its customers is addressed.

Course contents

- Marketing mix decisions
- Segmentation and Positioning
- Economic order size

Prerequisites

Business Administration (MON02F)
Business Accounting (LAS01F)

Course materials

Jobber, D. 2000. Principles and Practice of Marketing. 4th edition. Part 1 & 2. England: McGraw-Hill. Chapters 1 - 17.

Lysons, K. & Gillingham, M. 2003. Purchasing and Supply Chain Management. 6th Edition. England: Prentice Hall. Chapter 8.

Advisors

Aku Laksola

Teaching and learning methods

During contact hours, students are guided towards distance learning, aiming particularly at the completion of the marketing plan. This marketing plan will be done in teams of three students. Each team will give a presentation at the end of the course.

Contact hours 40 h
Distance learning 41 h (teamwork and independent study)

Assessment

Assignments 100%

Finnish and Communication 1

- Code: MON01F
- Extent: 5 cr (135 h)
- Semester: 1
- Language: Finnish
- Level: core studies
- Type: compulsory *

* Required only of native Finnish students in the Bite programme.

Learning outcomes

Students are able to:

- Orient themselves to their studies and the working life by understanding the importance of communication in these areas
- Communicate appropriately both orally and in writing both as individuals and group members

Course description

The course is an introduction to business communication (especially information technology).

Course contents

- Fundamentals of business communication
- Oral and written communication in the business profession
- Language correctness
- Different text types (memo, announcement, job application, CV)
- Differences between traditional writing and writing in the Internet.

Prerequisites

Students starting their studies should complete this course during the first semester.

Course materials

Course material provided by the teacher.

The students are advised to use Helia

Business Administration

- Code: MON02F
- Extent: 5 cr (135 h)
- Semester: 1
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

After completing this course the student will:

- Know the core concepts in Business Administration and their relevance to Business
- Be able to gather information on organisations, analyse and present them coherently
- Be familiar with project work.

Course description

This module of introductory business studies lays a foundation for further business studies. The work is done mainly in groups who are jointly responsible for several distance-learning assignments and are expected to support each other in their mutual studies.

Course contents

- Entrepreneurship
- Business Environment
- Finance
- People
- Working in projects

Prerequisites

None

Course materials

Griffin, R.W. & Ebert, R. J. 2005. Business. 8th Edition. New Jersey: Prentice Hall. Material provided during the lectures.

Business cooperation

The students are connected to business by carrying out business analysis on a chosen organisation as well as reporting and presenting the outcome.

Advisor

Heikki Suominen

Teaching and learning methods

During contact hours, students are guided towards distance learning, aiming particularly at the completion of one large project. This project will be done in teams and will end with each team giving a company presentation at the end of the course.

Contact hours 60 h

Distance learning 75 h (teamwork and independent study)

Assessment

The following evaluations will be used:

Attendance mandatory

Project report and company presentation 50 %

Examination 40 %

Active attendance, assignments, and tests 10 %

IT-Seminar

- Code: MON03F
- Extent: 5 cr (135 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: compulsory

Learning outcomes

The student:

- Is familiar with principal research methods
- Can carry out an independent IT research project

The student presents his/her research in writing and orally.

Course description

The course focuses on different research methods and scientific writing. In addition to contact teaching, the course includes independent work. Students plan and carry out an independent IT research project: choose a topic, plan a timetable, apply the chosen research method, and present the results in a written academic report and an oral presentation. Students are also required to sum up the developments of their research project in a follow-up report. Oral presentation skills and academic writing are recapitulated during the course, and students revise written documents reviewed by course lectures.

Course contents

- Research methods
- Research process
- Research reporting
- Recap of academic writing and presentation skills

Seminar documents: written assignments

- Research plan
 - ◆ A short description of the chosen topic
 - ◆ Planning a timetable for the research
- Seminar paper: a 15 20-page-long document in the format of an academic research report
 - ◆ Introduction
 - ◆ Defining the Concepts
 - ◆ Empirical part
 - ◆ Conclusions
 - ◆ Research report: A follow-up report of the research process

Course materials

Handouts.

Advisors

Markku Somerkivi
Karl Robbins

Teaching and learning methods

Contact hours 45 h
Independent work 90 h

Assessment

The seminar documents, presenting skills and use of English language are evaluated.

Assignment 80 %

Presence 20 %

Data Processing

- Code: MON47F
- Extent: 6 cr (160 h)
- Semester: 1st
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The student will learn to use a computer as an effective tool during the studies.

Course description

During the course the student will learn the basics in word-processing, spreadsheet application, network skills, designing presentation graphics, information search and designing web page. Also the student will learn to utilize Helia

IT-Seminar

- Code: MON56F
- Semester: 4th
- Level and type: Professional Studies, compulsory, Bite
- Credit units: 3 cu
- ECTS: 4.5 points
- Language: English

Description

The purpose of the course is to acquaint students with different research methods and scientific writing. Besides contact teaching, the course involves plenty of independent work. Every student will plan and carry out an independent IT-related research project: choose a topic, plan a timetable, apply the chosen research method, and present the results in a written academic report and an oral presentation. Students are also required to sum up the developments of their research project in a follow-up report. In the course of the IT-Seminar, oral presentation skills and the genre of academic writing will be briefly recapitulated. Students are to revise their written documents during the course, if necessary, after the lecturers in charge of the course have reviewed them with comments.

Essential contents

- Research methods
- Research process
- Research reporting
- Recap of academic writing and presentation skills

Seminar documents: written assignments

- Research plan
 - ◆ A short description of the chosen topic
 - ◆ Planning a timetable for the research
- Seminar paper: a 15 20-page-long document in the format of an academic research report
 - ◆ Introduction
 - ◆ Defining the Concepts
 - ◆ Empirical part
 - ◆ Conclusions
 - ◆ Research report: A follow-up report of the research process

Bibliography

To be announced later.

Advisors

Markku Somerkivi
Karl Robbins

Teaching and learning methods

Contact hours 40 h
Independent work 80 h

Assessment

The seminar documents, presenting skills and use of English language are evaluated.

Mentoring

- Code: MON57F
- Extent: 3 cr (81 h)
- Semester: 1 - 7
- Language: English
- Level: core studies
- Type: compulsory

Course description

The study unit will start at the beginning of the studies on Orientation Day and will last three study years.

Course contents

The 1st year

- Studies at Helia, the structure of the Degree Programme in Business Information Technology
- Student organizations
- StudentÅ

Bachelor's Thesis

- Code: OPI04F
- Extent: 15 cr (405 h)
- Semester: 5 - 7
- Language: English
- Level: thesis
- Type: compulsory

Learning outcomes

After completing the study unit, student:

- Is able to plan his/her work
- Is able to work rationally and systematically
- Can gather and use material from diverse sources
- Is able to combine and apply the knowledge and the skills acquired during his/her studies
- Can use applicable methods
- Can make rational decisions
- Can use creative problem solving
- Understands the value of good written and oral presentation

Course description

The role of the Bachelor

Applied Mathematics

- Code: PER01F
- Extent: 4 cr (108 h)
- Semester: 3
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Student will learn to understand and apply basics of Statistical methods.

Course description

The studies contain lectures and exercises (distance learning). The course contains the basics of statistical research and analysis, fundamentals of probability calculus with most common distributions and their applications in IT area.

Course contents

- Random samples and statistical research
- Simple characteristic values of distributions such as mean value, standard deviation and median
- Linear regression and correlation
- Classical probability
- Discrete distributions such as Binary and Poisson
- Continuous distributions such as Exponential and Gaussian distribution

Prerequisites

Satisfactory skills of High School Mathematics.

Course materials

Any 2nd grade Statistics material.

Advisors

Kalevi Keinänen

Teaching and learning methods

4 contact hours per week and 4 hours distant learning per week.

Assessment

Written examination 80%
Practical exercises 20%

IT-Swedish

- Code: RUO44F
- Extent: 3 cr (81 h)
- Semester: 2
- Language: Swedish
- Level: core studies
- Type: elective *

*required only of native Finnish speakers in the Bite programme

Learning outcomes

The student:

- Becomes familiar with IT vocabulary as well as business vocabulary in both oral and written form
- Is able to discuss IT-related phenomena in Swedish

Course description

The course includes contact hours, independent studies, two written assignments and an oral presentation.

Course contents

- Central IT-related subjects

Prerequisites

Ruo61D Entry Level test or Ruo62D Intermediate Swedish.

Course materials

Ohinen, M. 2001. Data och dokument. IT-svenska. 1st - 2nd edition. Helsinki: WSOY.

Advisor

Maarit Ohinen-Salvén

Teaching and learning methods

Contact hours 32 h
Independent studies 49 h

Assessment

Attendance mandatory.

Written examination 40 %
Acceptable distance assignments (2 - 3 psc) 30 %
Continuous assessment 30 %

Information Systems and OOA

- Code: SYS01F
- Extent: 5 cr (135 h)
- Semester: 1
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The students:

- Are acquainted with the common structure of a software system
- Acquire the principles and techniques of the object-oriented modelling and notation

Course description

The study unit familiarizes students with different kinds of information systems and basic software structures. The study unit gives students the basic knowledge of object-oriented approach (OOA): principles and concepts, models and modelling languages.

Course contents

Information system

- Different kinds of information systems
- A software system as a part of an information system
- The common structure of a software system

Descriptions of an information system

- Need for descriptions
- Descriptions and notations

Object-Oriented Approach (OOA)

- The history of the object-oriented technique
- Goals
- The main concepts
- An object-oriented software engineering; main concepts, models and modelling languages

Prerequisites

None

Bibliography

Kendal-Scott. 2001 UML Explained. Addison Wesley.
Steves-Pooley. 2000. Using UML. Addison Wesley.
The Material on the Website of the Study Unit.

Advisor

Kirsti Jalasoja

Teaching and learning methods

Contact hours 66 h, 2 lessons per week and 2 exercisehours per week
Independent studies 65 h, 3 h per week

Exam 4 h

Assessment

Attendance mandatory.

The assessment is based on two parts

- an exam
- a team work

Managing IT Projects

- Code: SYS02F
- Extent: 7 cr (189 h)
- Semester: 6 - 7
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

After completing the course student:

- Can plan business information systems development projects and to participate in such projects
- Understands how to define and manage corporate IT development programs and their implementation as disciplined and well managed projects.

Course description

The course familiarizes students with corporate IT development programs and their implementation as disciplined and well managed projects. The course follows the curriculum of 2005.

Course contents

- IT development programs and projects
- Creating and analysing a development program
- Project Planning
 - ◆ initiation
 - ◆ profitability, risks, quality
 - ◆ project organisation
- Project management and steering
- Critical success factors of an IT project

Prerequisites

Student has done the work placement and has basic knowledge and experience of project work and the development process of business information systems.

Course materials

To be decided.

Advisor

Markku Tarkki

Assessment

To be decided.

Managing IT Projects

- Code: SYS21F
- Semester: 6th - 7th
- Level and type: Advanced Professional Studies, Elective, Bite
- Credit units: 5 cu
- ECTS: 7,5 points
- Language: English

Description

The course familiarizes students to understand corporate IT development programs and their implementation as disciplined and well managed projects. Learning is based on the dialogue between classroom teaching and drilling. Drilling is done in small groups guided by professional lectures of each individual topic. The course follows the curriculum of 2003.

Essential contents

IT development programs and projects
Assessing corporate IT status
Creating and analysing a development program
Project Planning

- initiation
- profitability, risks, quality
- project organization

Project management and steering
Critical success factors of an IT project

Prerequisites

Student has done the work placement and has basic knowledge and experience of project work and the development process of business information systems.

Aims and objectives

Students get the ability to act as project manager in business information systems development projects. They get knowledge and understanding of defining and managing corporate IT development programs and their implementation as disciplined and well managed projects.

Bibliography

McManus, Wood-Harper 2003. Information Systems Project Management.
Handouts provided by the teacher.

Advisor

Markku Tarkki

Assessment

Assignments 50 %.
Written examination 50 %.

SAP R/3 in Business

- Code: SYS39F
- Extent: 7,5 cr (203 h)
- Semester: 6 or 7
- Language: English
- Level: professional studies

Learning outcomes

The students:

- Understand the importance of managing, controlling and supervising of business operations and functions
- Know how to utilise ERP and tools like SAP in business
- Are familiar with the aspects of ERP systems and understand SAP R/3 philosophy
- Have experience how to solve some basic SAP R/3 solutions

Course description

To manage business requires good understanding of business activities and functions. In enterprise resource planning (ERP) the aim is to increase the efficiency of different processes and to improve management and internal control by utilising IT-tools like SAP.

Course contents

- Enterprise Resource Planning (ERP) in business processes
- SAP R/3 Enterprise Resource Planning (ERP)
- IDES (International Demonstration and Educational System) as case system
- SAP R/3 as a tool to support business

Course material

Functions in Details, R/3 System, IDES.

Business cooperation

Guest lectures

Teacher

Erkki Koskela

Teaching and learning methods

Lectures and workshops , given once a week, support self-study and teamwork:
56 h lectures and workshops
147 h self study and teamwork

Assessment

40 % Contribution to the project
60 % Individual work

Developing Information Systems

- Code: SYS48F
- Extent: 18 cr (486 h)
- Semester: 3
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

Students:

- Get the ability to act in a systems development project team: constructing a project plan and monitoring and estimating the project process
- Get the knowledge and the understanding of systems development process lifecycle and modern analysis and design methods and techniques
- Can apply these skills in implementing a project consisting phases from defining to implementation and the quality assurance of an application.

Course description

The course focuses on a well-disciplined project of defining, planning, implementing, and testing a business information system. Students will complete a project containing all major phases of the systems development work chain from project management to implementing all major systems development tasks. UML, CASE tools, and Java will be applied, so it is essential that students have the basic skills and the knowledge of applying these methods and techniques.

Course contents

Project management

- Project initiation and planning
- Project management
- Project termination

Business Information Systems development Lifecycle

- Development programmes and projects
- Focus of the development: automated-system, information system, company

Business information systems as a whole

- Development process lifecycle
- Systems development models and methods
- Development tools
- Standards

System Requirements Analysis and Design

- Process, tasks, and deliverables
- Object Oriented Analysis
- UML and CASE-tools
- Quality assurance: inspection and reviews

Design and Construction

- Usability analysis
- Application layers
- Transition from analysis to design
- Designing and implementing the user interface

- Designing the DB-solution
- Implementing the DB-interface
- Designing and implementing the application processing
- Quality assurance: testing

Testing and Deployment

- Acceptance testing
- Deployment

Prerequisites

Students have passed 1st and 2nd semester compulsory courses or can prove equivalent knowledge and skills.

Course materials

Booch, G., Rumbaugh, J. & Jacobson, I. 1998. The Unified Modelling Language User Guide. ISO / IEC 12207. Information Technology Software Lifecycle Processes.
 Jacobson, I., Booch, G. & Rumbaugh, J. 1999. The Unified Software Development Process.
 Perry, W. 1995. Effective Methods for Software Testing.
 Rumbaugh, J., Jacobson, I. & Booch, G. 1999 Unified Modelling Language Reference Manual.
 Quatrani, T. 1999. visual Modelling with Rational Rose and UML.
 Handouts and course Web pages.

Advisors

Project management: Markku Tarkki
 OOA: Ulla Vanhanen
 OOD and OOP Juha Pispa and Seija Wolfer

Teaching and learning methods

During the course the students complete a small system project. Learning is based on the Problem Based Learning method and implementing real systems modelling, programming, and testing tasks. Learning is aided by providing the students professional brush up lectures during the course. The complete amount of work is 28 hours per student per week.

Assessment

The assessment is based on individual project team results.

Information System Requirements Engineering

- Code: SYS60F
- Extent: 6 cr (162 h)
- Semester: 6 - 7
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

The student:

- Is able to participate in a system requirements reengineering process as a system analyst

Course description

The study unit gives students knowledge of a business-oriented requirements engineering of an information system. The requirements engineering process includes the following phases: business process re-engineering, system requirements specification, and system specification.

Course contents

The essential contents of the study unit are as follows:

- Business processes analysing
- Automation analysing
- Security requirements analysing
- System requirements engineering
- System specification

The students will use different kinds of methods: the business re-engineering, the entity structure modelling, and the object-oriented methods e.g. class modelling, use case modelling, interaction modelling, and deployment modelling.

Prerequisites

The student has passed 3rd semester compulsory courses or has the equivalent knowledge and skills.

Course materials

Not available yet. Study unit's development is in progress.

Advisor

Kirsti Jalasoja

Teaching and learning methods

Contact hours 70 h

Team work 92 h

Digital and Global Firm

- Code: SYS05F
- Extent: 7 cr (189 h)
- Semester: 6 - 7
- Language: English
- Level: professional studies
- Type: free-choice

Learning outcomes

The objective is to provide an introduction to key issues, up to date problems and possibilities and current solutions of Global Electronic Business and Digital Economy. The objective is to give students overall picture of the whole landscape of the New Economy so that they can investigate, discuss and communicate about the new development in the areas of global eBusiness strategies, modern business models, new IT solutions, implementations and other important associated questions of today.

Course contents

Introduction

Organizations, management, and the networked enterprise

- Managing the global digital firm
- Information systems in the global digital enterprise
- Information systems, organizations, management, and strategy in the global digital firm
- The digital firm: electronic commerce and electronic business

Information technology infrastructure in the global digital firm

- Managing hardware assets
- Managing software assets
- Managing data resources
- Telecommunications and networks
- The Internet and the new information technology infrastructure

Building information systems in the digital firm

- Redefining the organization with information systems
- Understanding the business value of systems and change managing

Management and organizational support systems for the global digital firm

- Managing knowledge: knowledge work and artificial intelligence
- Enhancing management decision making

Managing information systems in the global digital firm

- Information systems security and control
- Ethical and social impact of information systems
- Managing international information systems

Exercises, discussions

Course materials

To be announced at the beginning of the course.

Advisor

Erkki Rätty

Teaching and learning methods

Contact hours 40 h

Distance learning hours 149 h

Assessment

The assessment is based on three parts: individual assignments, an exam and exercises.

Computer Organisation

- Code: TIE01F
- Extent: 4 cr (108 h)
- Semester: 1
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

After the course the student:

- Understands the basics of a computer system: the architecture and the functioning
- Will know how the computer is organised, how a program executes in a computer and what is the role of the operating system in the program execution
- Will know what the computer system components are and how they execute a given program.

Course description

The studies contain lectures, exercises (distance learning) and three mid-tests. In evaluation the exercises form 30% of the grade and exams 70%. To pass the course a student has to get at least half of the points of the tests. Lectures are not mandatory, but exercise-points may be achieved only by participating lectures/exercises.

Course contents

Overall computer system

- The architecture of i386-computer
- The components of a computer
- CPU and bus basic structure
- I/O implementation and I/O devices
- Operating system

The functioning of a computer

- Notations, computer logic
- Data representation and error correction codes
- Operating systems role
- Creating and executing programs in the system
- Execution of programs

Bibliography

Handouts

Morley & Parker: Understanding Computers, 10th edition.
THOMSON Course Technology

Advisor

Markku Somerkivi

Teaching and learning methods

Contact hours 72 h

Homework 36 h

Assessment

Attendance mandatory.

Homework 30 %

Test 70 %

Operation and Practice of an Information Network

- Code: TIE29F
- Extent: 6 cr (162 h)
- Semester: 2
- Language: English
- Level: professional studies
- Type: compulsory

Learning outcomes

The student

- Understands the architecture of an Information Network
- Knows how to install a workstation
- Knows how to manage it in a network environment

Course description

This course offers the basic knowledge of different networking techniques in theory and in practise using Win2000 -environment.

Course contents

- The basics of Local and Wide Area Networks, the Internet, TCP/IP, Network Operating Systems and security
- Installing a workstation
- Administering users and user groups
- Implementing security

Prerequisites

Computer Organisation (TIE01F)

Course materials

In Blackboard

Advisor

Juhani Merilinna

Teaching and learning methods

Contact hours 40 h
Independent studies 82 h
Laboratory assignments 40 h
3 cr theory + 3 cr practise

Assessment

Attendance mandatory.

Written examination 70 %
Assignments 30 %

Building a Business IT Network

- Code: TIE43F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: English
- Level: core studies
- Type: compulsory

Learning outcomes

The student:

- Can install and take in use a server
- Can administer the users of the network and distribute the resources of the server to the users
- Will become familiar with the Windows environment

Elective exercises can include tasks for students majoring in e.g. system design. This will be agreed upon at the beginning of the course.

Course description

This course provides a practical approach to the duties of an IT expert connected to the management and development of the network environment.

Course contents

- Installing and configuring a server
- Server management: administering users and rights, printing and shared directories
- Management of an active directory: connecting the work station with the operating area, management of organization units and group practices
- Installation of server software: IIS or SQL server
- Management of the Windows network
- Planning a local area network (exercise)

Prerequisites

Operation and Practise of an Information Network (TIE29F)

Course material

Minasi, 2000. Mastering Windows 2000 Server. Microsoft Corporation.
O'Brien, G. 2000. Microsoft IIS 5 Administration. Sam & Publishing:
Jaakonhuhta, H. 2003. Local Area Networks Ethernet. IT Press Edita Publishing Inc.

Advisor

Olavi Korhonen

Teaching and learning methods

Contact hours (26 h) include the presentation of the assignments and feed-back sessions and an introduction to the whole study unit.

Independent studies (55 h) consists of independent work, laboratory work and the documentation of the work.

There are 6 exercises each one completed during a 4-hour laboratory session. Possibilities to retake a failed exercise are limited, information on these possibilities is given at the beginning of the course. The students work independently during the laboratory session. The completion of the work in due time requires some examination of the assignment and the related material in advance. In the beginning of the session the teacher can check by

questions that the students are able to complete their work during the session. Insufficient preparation in advance can result in the rejection of the work. The student documents and returns all exercises to the advisor. The arrangements are described in detail at the beginning of the course.

Assessment

There will be no examination, but independent completion of exercises, success and documentation will be evaluated by points. Half of the maximum points are required for the successful completion of the course.

Linux Basics

- Code: TIE63F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

Student:

- Can install a Linux based workstation with software
- Can use command line interface
- Can install 1-2 most important daemons
- Knows the idea of Free software, knows the main features of the most important Free licenses
- Knows how to keep learning Linux independently

Course description

During this course students get acquainted with the Linux operating system and the most important Free programs. Linux is used both as a server and as a workstation.

Course contents

- Installation
- Linux as a workstation
- Command line interface
- Administration and package management
- Apache Web-server, LAMP
- Remote control SSH client and server
- Programming tools

Prerequisites

The student can use computer. No Linux experience required.

Course materials

Material distributed during the course, including links.

Advisor

Tero Karvinen www.iki.fi/karvinen

Teaching and learning methods

Contact hours 32 h

Independent work 49 h

Contact hours in a computer class, independent exercises in a computer class. Exercises will be documented.

Assesment

Exercises 50 %

Exam 50 %

Excel in Business

- Code: TYÖ06F
- Extent: 3 cr (81 h)
- Semester: 4
- Language: English
- Level: professional studies
- Type: elective

Learning outcomes

After completing the course student:

- Knows the basics of financial accounting and business decision making applications
- Can use Excel as a practical tool in serving computing, reporting, monitoring and planning needs of different types of business functions

Course description

A business planning tool course for those who want to learn how to use Excel in financial and management accounting application areas like stock portfolio management, financial reporting, and business performance analysing and resource management.

Course contents

- Brush up of Excel-skills
- Stock portfolio management
- Financial reporting & business planning

Prerequisites

Basic skills using Excel and knowledge of the fundamentals of the business processes and financial accounting procedures. This course is suitable for students of all business branches.

Course materials

Handouts provided by the advisors.

Advisor

Markku Tarkki

Assessment

The assessment is based on exam (50 %) and individual assignments (50 %).

Finnish and Communication 2

- Code: VIE30F
- Extent: 3 cr (81 h)
- Semester: 3
- Language: Finnish
- Level: core studies
- Type: compulsory *

* Required only of native Finnish speakers in the Bite programme.

Learning outcomes

The students will:

- Be able to prepare speeches and speak in different situations, especially in meetings and negotiations
- Be able to write documents related to these occasions
- Learn what should be taken into account when being responsible for a training situation
- Be able to write operating instructions related to IT business
- Write academic text using references

Course description

The course develops the students'Å

Entrepreneurship and Product Innovation

- Code: YRI68H
- Extent: 15 cr
- Language: English
- Level: professional studies
- Type: elective

To be able to participate in this course, you need to apply by the 19th of April, 2006. All applicants will be interviewed.

The premises of the starting co-operative will be at SLK-buinding, on the 4th floor.

Learning outcomes

Ability to:

- Create product or service ideas
- Develop a product from an idea
- Run a project
- Create a cooperative from the cratch

Course description

In the course the students innovate and develop from their ideas products or services that can be basis for a business. The students create and register a cooperative, develop products form their ideas and start to take care of their company.

Course contents

The course covers four study modules:

- Intensive module, getting to know each other
- Innovating and developing the product or service ideas
- How to create a cooperative and run it
- From an idea to a product

Advisors

Irma Mäkäräinen-Suni, Tomas Illman ja Pekka Pitkänen

Teaching and learning methods

Learning by doing, working for the cooperative is the major way of learning. Doing the customer projects which will be advised by the advisors. Presentations prepared by advisors and students are presented in the training sessions, innovation sessions, workshops, company visits and visits to fairs.

Assesment

Passed/failed.

Passing grade requires active and spontaneous work for innovating and developing the product or service idea and developing the business for the cooperative. 75 % participation for the organized coaching activities (training sessions, workshops, company visits) and 400 hours reported work for the cooperative.

From Product to Business

- Code: YRI69H
- Extent: 15 cr
- Language: English
- Level: professional studies
- Type: elective

To be able to participate in this course, you need to apply by the 19th of April, 2006. All applicants will be interviewed. Another application possibility will be in the fall 2006.

The premises of the starting co-operative will be at SLK-buinding, on the 4th floor.

Learning outcomes

- Ability to develop product and service concepts
- Understanding of how to find customers for the developed products
- Ability to plan finances of the company.

Course description

In the course the students innovate and develop from their ideas products or services that can be basis for a business. The students create and register a cooperative, develop products form their ideas and start to take care of their company.

Course contents

The course covers four study modules:

- Finding customers
- Developing the product or service concepts
- Marketing and selling
- Financial planning of the cooperative
- Planning for the future

Advisors

Irma Mäkäräinen-Suni, Tomas Illman ja Pekka Pitkänen

Teaching and learning methods

Learning by doing, working for the cooperative is the major way of learning. Doing the customer projects which will be advised by the advisors. Presentations prepared by advisors and students are presented in the training sessions, innovation sessions, workshops, company visits and visits to fairs.

Assesment

Passed/failed.

Passing grade requires active and spontaneous work for innovating and developing the product or service idea and developing the business for the cooperative. 75 % participation for the organized coaching activities (training sessions, workshops, company visits) and 400 hours reported work for the cooperative.