

Course List (DIGIE curriculum)

Degree Programme in Business Information Technology

Compulsory Studies	Code	90 cr.
Common Core Studies		
International Communications		
Study and Working Skills For native Finnish speakers:	COM1TF010	5
Introduction to Communications (Finnish)	COM1TF011C	5
Introduction to Communications (Swedish) For non-native Finnish speakers	COM1TF011A&B	5
Beginners' Finnish	FIN4TF010	5
Beginners' Finnish 2	FIN4TF011	5
Finnish 3	FIN4TF012	5
ICT and Business English	ENG1TF010	5
Communication in Multicultural Environments	COM1TF012	5
Sales and Service		
Office Tools in Sales and Services	SAL1TF001	5
Selling ICT Solutions	SAL1TF002	5
Project Work and Methods		
Innovation and Project Work	PRO1TF001	10
Project Management	BUS1TF107	5
ICT, Business and Entrepreneurship		
Business Mathematics	MAT1TF010	5
Business Operations	BUS1TF011	5
Common Professional Studies		
Orientation to Software Engineering	SWD1TF001	5
Orientation to Digital Services	DIG1TF001	5
Orientation to ICT infrastructures	ICT1TF010	5
Orientation to Business and ICT	BIG1TF001	5
Research Methods		5
Optional Profile-Specific Studies		
Software Development		
Programming (Java)	SWD4TF002	5
Data Management and Databases	SWD4TF003	5
Server Programming	SWD4TF021	5
Front End Development	SWD4TF022	5
Mobile Programming	SWD4TF020	5

Software Development Technologies	SWD4TF023	5
Software Project	SWD4TF024	10
Multidisciplinary Software Project	PRO4TF024	15
Database Developer	SWD8TF040	5
Digital Services		
User Experience	DIG4TF002	5
Prototyping of Digital Services	DIG4TF003	5
Digital Service Design	DIG4TF021	5
Digital Service Project	PRO4TF030	5
ICT Infrastructures		
Data Security	ICT4TF022	5
Cloud Service Technologies	ICT4TF024	5
Server Technologies	ICT4TF021	5
ICT Infrastructure Project	PRO4TF023	10
Business and ICT		
SAP ERP 1	BIG4TF002	5
Business Process Management	BIG4TF003	5
SAP ERP 2	BIG4TF021	5
Managing CRM Processes	BIG4TF004	5
Requirements Analysis	BIG8TF005	5
Business Intelligence	BIG4TF022	5
Business Intelligence Development Project	BIG4TF023	5
Business IT project	PRO4TF022	10
Free-choice studies		15
Big Data	BUS8TF100	5
Digital Economy and E-commerce	DIG8TF801	5
Financial Accounting, Processes and Systems	BIG8TF008	5
Arduino Projects	SWD8TF900	5
Free-choice studies in StartUp School		
Future Working Skills	WOR8HH033	1
Find Your Strengths	WOR8HH032	5
StartUp School WarmUp Parade	WOR8HH013	3
Developing Entrepreneurial Mindset	WOR8HH022	5
Pitching Camp	WOR8HH023	3
StartUp School full offering	StartUp School	
Work placement		
Work placement	PLA6TF001	30
Thesis		
Thesis Workshop		
Thesis Seminar		
Thesis		15
Total		210

Study and working skills

- Code: COM1TF010
- Extent: 5 ECTS
- Timing: Semesters 1 and 3, In the 1st semester 3 ECTS, in the 3rd semester 2 ECTS
- Language: English
- Level: Core studies
- Type: Compulsory

Starting level and linkage with other courses

No prerequisites

Learning outcomes

Upon successful completion of the course, the student

- can use Haaga-Helia's student services and independently search the information s/he needs for her/his studies
- knows the structure of her/his studies and the courses included in it and can lead her/his own actions so that s/he progresses in her/his studies according to the targets of Ministry of Culture and Education that is completing at least 60 ECTS in an academic year and graduating in the 3.5 years norm time
- can operate constructively in her/his studying community, plan her/his professional future, evaluate her/his own strengths and development needs and can support her/his targets with her/his choices
- can evaluate her/his progress and learning so far, determine her/his strengths, interests, targets for development and career. The student can market her/himself to the labor market and can build her/his contact network in a global environment.

Course contents

The first part of the course starts with the orientation days before the actual teaching begins and continues during the first period of the first semester.

Content of the first part:

- Information systems, software and services, related to studying
- Creating a Personal Study Plan (PSP) and career planning together with the Personal Study Advisor
- Time management, group working skills
- SWOT analysis of student's strengths and targets of development

Content of the second part:

- Creating a Personal Study Plan (PSP) and career planning together with the Personal Study Advisor
- Reflection of learning, self-knowledge
- Peer learning, support to other students, constructive attitude to studying,
- CV, job application, rights and duties of an employee, working life skills

Course material

PSP forms, Haaga-Helia's public sites, MyNet
Pentti Sydänmaanlakka: Intelligent self-leadership

Cooperation with the business community

Academic Work, Tradenomiliitto, alumnies

Teaching and learning methods

Contact hours and meetings during the orientation days and a part of the course

International dimension

Briefing on exchange studies and double degree

Assessment criteria

Carefully completed course assignments: Preliminary assignment, Personal Study Plan and study progress according to PSP, SWOT, Career plan, Peer assessment, CV, job application

Grade: Pass (H) / Fail (O)

Recognition of prior learning (RPL)

This course cannot be completed by recognition of prior learning.

Teachers responsible

Tarja Paasi-May
Kari Silpiö

Introduction to Communications, Finnish

- Tunnus: COM1TF011C
- Laajuus: 2 op
- Ajoitus: 1. lukukausi, 1. periodi
- Kieli: suomi
- Opintojakson taso: perusopinnot
- Opintojakson tyyppi: pakollinen

Lähtötaso ja sidonnaisuudet muihin opintojaksoihin

Ei edeltävyyssehtoja tai sidonnaisuuksia muihin opintojaksoihin.

Osaamistavoitteet

- Opiskelija ymmärtää viestinnän osaamisen tärkeyden ja haluaa kehittyä viestintä- ja vuorovaikutustaidoissaan sekä suullisesti että kirjallisesti.
- Opiskelija tuntee viestinnän merkityksen nykypäivän organisaatioissa. Opiskelija tunnistaa erilaisia opiskelun ja työelämän viestintätilanteita ja tekstilajeja sekä ymmärtää niiden erilaisia tavoitteita.
- Opiskelija hallitsee esiintymistaidon perusteet ja ymmärtää vuorovaikutuksen ja sanattoman viestinnän merkityksen osana onnistunutta viestintää.
- Opiskelija osaa tuottaa asiantuntevaa ja kielellisesti ongelmatonta tekstiä. Hän osaa soveltaa Haaga-Helian raportointi- ja opinnäytetyöohjeita oppimistehtävissään.
- Opiskelija osaa arvioida ammatillisten ja tieteellisten lähteiden luotettavuutta sekä hyödyntää hankkimiaan tietoja opinnoissaan ja työtehtävissään.

Sisältö

- Viestinnän perustaitojen hahmottaminen
- Opintojen ja työelämän erilaiset viestintätilanteet sekä suullisesti että kirjallisesti: mm. henkilökohtainen vuorovaikutus, opastavan ja ohjaavan tekstin laatiminen, sähköpostiviestintä, asiakaskohtaukset
- Sanallisen ja sanattoman viestinnän peruspiirteiden tunnistaminen ja ymmärtäminen
- Esiintymisen perustaidot
- Puhe-esityksen valmisteleminen ja havainnollistaminen
- Kielenhuolto
- Haaga-Helian raportointiohjeiden tunteminen ja soveltaminen omiin töihin

Oppimateriaali

- Haaga-Helian raportointiohjeet
- Tuntityöskentelyn materiaali sekä muu opettajan ilmoittama ja jakama materiaali

Työelämäyhteydet

Opintojaksolla hyödynnetään mahdollisuuksien mukaan yrityselämän edustajia vierailuluentoitsijoina.

Opetus- ja oppimismenetelmät

Lähiopetus perustuu aktiiviseen vuorovaikutukseen, jossa opiskelijat tekevät runsaasti erilaisia vuorovaikutusharjoituksia opettajan toimiessa pienryhmien tukena. Kurssilla tehdään myös runsaasti harjoituksia itsenäisesti ja ryhmässä, mahdollisuuksien mukaan verkkoympäristössä. Kurssin tehtävissä hyödynnetään mahdollisuuksia soveltaa omista työkokemuksista kertyneitä tietoja. Opiskelijan oman viestintämyönteisyyden herääminen on oppimisen perusta.

Kansainvälisyys

Omien viestintätaitojen ymmärtäminen ja niiden kartuttaminen on kansainvälisen vuorovaikutuksen onnistumisen keskeinen perusta. Omien viestintävalmiuksien parantaminen ja oman kielellisen taustan ymmärtäminen on keskeistä kansainvälisen osaamisen rakentumisessa.

Arviointiperusteet

Kurssilla ei ole tenttiä. Sekä suullisen että kirjallisen viestinnän osaamistavoitteiden mukaista osaamista arvioidaan ryhmä- ja yksilötehtävin. Esimerkkejä tehtävistä:

- kirjallinen tehtävä (yksilötyö), jossa harjoitellaan tieteellisen kirjoittamisen perusteita (mm. lähdemerkintöjä) sekä omien ajatusten yhdistämistä lainattuihin osuuksiin
- lyhyet kirjoitusharjoitukset
- videoitu yksilöesitys
- yhteisöviestinnän esitys pienryhmissä

Opetus- ja oppimismenetelmät

Luennot, yksilö-, ryhmä- ja paritehtävät

Kirjalliset lähteet

Haaga-Helian raportointiohjeet

Tuntityöskentelyn materiaali sekä muu opettajan ilmoittama ja jakama materiaali.

Kirjallisuutta

- Iisa, K. & Oittinen, H. & Piehl, A. 2012 Kielenhuollon käsikirja. 6. painos. Yrityskirjat Oy.
- Karhu, M. & Salo-Lee, L. & Sipilä, J. & Selänne, M. & Söderlund, L. & Uimonen, T. & Yli-Kokko, P. 2007. Asiantuntija viestii – ajatuksesta vaikutukseen. Inforviestintä Oy.
- Kielitoimiston oikeinkirjoitusopas. 2012. Toim. Kankaanpää S. & Heikkilä, E. & Korhonen, R. & Maamies, S. & Piehl, A. 3. painos. Kotimaisten kielten tutkimuskeskuksen julkaisuja 147.
- Korteso, K. 2014. Sano se someksi 1. Ammattilaisen käsikirja sosiaaliseen mediaan. Kauppakamari.
- Korteso, K. 2014. Sano se someksi 2. Organisaation käsikirja sosiaaliseen mediaan. Kauppakamari.
- Kortetjärvi-Nurmi, S. & Kuronen, M-L. & Ollikainen, M. 2011. Yrityksen viestintä. Edita Prima Oy. Tästä tulossa uusi painos eri nimellä syksyllä 2015, päivitetään listaan!
- Koskimies, R. 2002. Asiantuntijan esiintymistaito. Oy Finn Lectura ab.
- Lohtaja, S. & Kaihovirta-Rapo, M. 2012. Tehoa työelämän viestintään. WSOYpro.
- Luukkonen, M. 2006. Hauskaa kielenhuoltoa! Kielenhuollon opas. WSOY.
- Torkki, J. 2013. Puhevalta – kuinka kuulijat vakuutetaan. Otava.

Vastuopettajat

Tarja Paasi-May

Laura Uusitalo

Pilvi Heinonen

Introduction to Communications, Swedish

- Tunnus: COM1TF011AB
- Laajuus: 3 op (81 h)
- Ajoitus: 1. lukukausi, 2. periodi
- Kieli: ruotsi / suomi
- Opintojakson taso: perusopinnot
- Opintojakson tyyppi: pakollinen

Lähtötaso ja sidonnaisuudet muihin opintojaksoihin

Edeltävyyssehtona hyväksytty suoritus Winhassa joko koodilla SWE1TN061 Ruotsin tasotesti tai SWE8TN062 Ruotsin kertauskurssi.

Osaamistavoitteet

Opintojakson suoritettuaan opiskelija osaa

- viestiä työelämän keskeisissä tilanteissa ymmärrettävästi ja johdonmukaisesti ruotsin kielellä sekä suullisesti että kirjallisesti.
- hyödyntää oman alansa ruotsinkielisiä ammattijulkaisuja sekä keskustella oman alansa ilmiöistä ruotsin kielellä.
- keskustella omasta työstään ja omista opinnoistaan ruotsin kielellä.
- toimia pohjoismaisissa yrityskulttuureissa kulttuurierot huomioiden.

Sisältö

- Työelämän viestintä: mm. henkilökohtainen vuorovaikutus, vuorovaikutus ryhmätilanteissa, asiakasvuorovaikutus (ml. myyntitilanteet), sähköpostiviestintä.
- It-aiheet ja keskeinen it-terminologia ruotsin kielellä.
- Työnhakuun, opiskeluun ja vaihto-opiskeluun liittyvät aiheet ja ruotsinkielinen terminologia sekä työnhakuun liittyvät asiakirjat.
- Pohjoismaiden väliset kulttuurierot työelämän ja yrityskulttuurien näkökulmasta.

Oppimateriaali

- Ohinen-Salvén, M. 2008 / 2015. Jobba med IT. Svenska för högskolor. Edita. Helsinki.
- Tunnilla ja / tai oppimisalustan kautta jaettava lisämateriaali.

Työelämä- ja yritys yhteistyö

Opintojaksolla hyödynnetään mahdollisuuksien mukaan ruotsinkielisiä yritys elämän edustajia vierailuluennoitsijoina.

Opetus- ja oppimismenetelmät

Lähiopetus perustuu aktiiviseen vuorovaikutukseen, jossa opiskelijat tekevät paljon dialogi- ja keskusteluharjoituksia. Opettajan rooli on valmentava ja ryhmäytymistä tukeva. Läsnaolo oppitunneilla on suullisen kielitaidon kehittymisen vuoksi tärkeää.

Kansainvälisyys

Opintojaksolla käsitellään Pohjoismaihin ja niiden yrityskulttuureihin sekä vaihto-opiskeluun liittyviä aiheita.

Arviointiperusteet

Opintojakso suoritetaan oppimistehtävillä, jatkuvalla näytöllä ja loppukokeella. Opintojaksosta annetaan erikseen kirjallinen ja suullinen arvosana.

Osaamistavoitteiden mukaista osaamista arvioidaan seuraavin kriteerein: sujuvuus, rakenteellinen ja sanastollinen monipuolisuus, oikeakielisyys, uskallus ja halu käyttää ruotsin kieltä.

Oman oppimisen arviointitehtävä ei vaikuta arvosanan muodostukseen. Tehtävä on kaikille opintojaksoille/-kokonaisuuksille yhteinen ja vastauksia käytetään myös opintojakson/-kokonaisuuden kehittämiseen. Tehtävä tehdään WinhaOpaalissa.

Suoritus arvioidaan käyttäen asteikkoa kiitettävä (5), erittäin hyvä (4), hyvä (3), tyydyttävä (2), välttävä (1), hylätty (0).

Arvosana 1

Suullinen kielitaito riittää yksinkertaisiin rutiinitilanteisiin. Ymmärtämisvaikeuksia esiintyy ja väärinkäsityksiä syntyy melko helposti. Ääntämisessä on runsaasti puutteita.

Tekstin ymmärtäminen edellyttää apuvälineitä. Rakenteissa ja sanastossa on runsaasti aukkoja, minkä vuoksi tuotettu teksti on vaikeaa ymmärtää.

Arvosana 3

Selviytyy tutuissa työhön ja vapaa-aikaan liittyvissä tilanteissa. Ymmärtää suuren osan kuulemastaan ja pystyy reagoimaan toivotulla tavalla ilman valmistautumista. Tulee ymmärretyksi, vaikka ääntäminen voi olla joidenkin äänteiden osalta puutteellista.

Ymmärtää keskeisen sisällön sekä yleisluontoisia aiheita että omaa alaa koskevista teksteistä. Kirjalliset tuotokset ovat ymmärrettäviä. Sekä alakohtainen että yleissanasto on melko laaja. Rakenteissa on osittain puutteita.

Arvosana 5

Suullinen kielitaito on sujuvaa. Pienehköjä virheitä saattaa esiintyä, mutta ne eivät haittaa kommunikointia. Selviytyy hyvin ja idiomaattisesti sekä työelämän että vapaa-ajan kielenkäytössä ja keskustelutilanteissa. Ymmärtää hyvin omaan alaan liittyvän puheen. Ääntäminen on lähes virheetöntä.

Ymmärtää vaivatta sekä yleisluontoisia aiheita että omaa alaa käsitteleviä tekstejä. Pystyy itse tuottamaan rakenteellisesti ja sanastollisesti monipuolista, melko virheetöntä tekstiä, jossa satunnaiset rakennevirheet eivät häiritse lukemista. Osaa käyttää alan keskeistä terminologiaa oikein.

Aikaisemmin hankitun osaamisen tunnustaminen (AHOT)

Aiemmin hankitun osaamisen tunnistaminen ja tunnustaminen on prosessi, jossa arvioidaan aikaisemmin hankittua osaamista suhteessa suoritettavaan opintojaksoon. Aiemmin hankittu

osaaminen voi perustua aikaisempaan opiskeluun tai alan työkokemukseen. Opiskelijan halutessa suorittaa opintojakso AHOT-menettelyä käyttäen tulee opiskelijan ilmoittautua normaalisti opintojaksolle ja ottaa yhteyttä opintojakson opettajaan AHOT-menettelyn käynnistämiseksi.

Vastuopettajat

Päivätoteutukset: Maarit Ohinen-Salvén

Illatoteutukset: Antti Oksanen

Beginners' Finnish

Code: FIN4TF010

Scope: 5 ECTS

Timing: 1st semester

Language: Finnish/English

Curriculum: 1.8.2015

Course level: Common core studies -> International Communications

Course type: Compulsory* (* Required only of foreign students in the BIT programme.)

Starting level and linkage with other courses

No previous knowledge of Finnish language required.

Learning objectives

The student

- can introduce oneself, give basic information about oneself and ask simple questions
- can understand and use basic expressions and simple sentences in routine everyday situation
- is able to deal with everyday social situations and handle simple shopping situations
- is aware of the basic characteristics of the Finnish language, culture and habits
- is able to use the surrounding language environment to develop one's language skills.

Target level A1. Level descriptions can be found at

http://www.coe.int/t/dg4/education/elp/elp-reg/Source/Global_scale/globalscale.pdf.

Course contents

The course is an introduction to Finnish language and culture, and themes handled during this course are me, my family, weather, time and everyday life. Emphasis will be given to all four language skills: listening, speaking, reading and writing.

- Pronunciation
- Greetings, basic small talk phrases
- Introducing oneself and telling about oneself
- Numbers, prices
- Weather, seasons, months, telling the time
- Asking questions and giving basic information in routine everyday situations
- Conjugation of some basic verbs
- Vocabulary and key phrases for everyday needs
- Describing people and objects in a simple way

Learning material

- Gehring, Sonja & Heinzmann, Sanni: Suomen mestari 1. Finn Lectura. Helsinki. Chapters 1–4. (Required)
- Finnish-English-Finnish Dictionary (Recommended)
- other material provided by teacher

Learning methods

Contact hours: oral and written exercises individually and in pairs, group work, games, tests
Independent studies: homework and preparation for lessons, exams and assignments, online material.

The assessment of one's own learning 1 h

Recognition of prior learning (RPL)

The students who start their studies in Bite programme and already know some Finnish, can pass the course and gain the credit points by attending a level test. Written part of the test is organized during the orientation weeks in August or January and the oral part later in the 4th/1st period according to a separate schedule.

Working life connections

The students improve their opportunities to get employed in Finland.

Internationality

International students. Differences between Finnish and other cultures.

Assessment criteria

- Active participation in lessons 20 %
- Small tests and/or assignments 30 - 40 %
- Final examination 40 - 50 %

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development. The assignment is completed online in WinhaOpaali.

The course is evaluated on a scale from 1 to 5.

Components 1	3	5
Knowledge The student knows some basic characteristics of Finnish language, and is able to understand some basic vocabulary in everyday situations.	The student knows most basic characters of Finnish language and understands familiar everyday expressions and very basic phrases in everyday situations well.	The student knows basic characters of Finnish language and understands and uses familiar everyday expressions and very basic phrases very well.
Skills The student can use familiar everyday expressions and very basic phrases. He/she can interact in a very simple way in everyday situations.	The student can use familiar everyday expressions and very basic phrases well. He/she can interact in a simple way in everyday situations.	The student can understand and use familiar everyday expressions and very basic phrases very well. He/she can interact in a simple way in everyday situations.
Competence The student has limited motivation to take responsibility for his/her	The student is partly motivated to take responsibility for his/her	The student is fully motivated to take responsibility for his/her

learning process. He/she is able to deal with some of the communicative situations handled during the course.

learning process. He/she can somewhat master the communicative situations handled during the course.

learning and participates actively. He/she can fully master the communicative situations handled during the course.

Course teachers

Taija Hämäläinen, Pasila

Laura Uusitalo, Pasila

Beginners' Finnish 2

- Code: FIN4TF011
- Scope: 5 ECTS
- Timing: 2nd semester
- Languages: English and Finnish
- Curriculum: 1.8.2015
- Course level: Common core studies -> International Communications
- Course type: compulsory * (* Required only of foreign students in the BIT programme).

Starting level and linkage with other courses

The student has successfully completed the course Beginners' Finnish FIN4TF010 or acquired this level in the entry level test in Finnish.

Learning objectives and assessment

This course develops student's ability to understand and use Finnish language further and activates the language skills learned earlier. The purpose is that students will be encouraged and able to use Finnish in everyday situations.

Upon successful completion of the course, the student

- can communicate in simple everyday situations requiring exchange of information on familiar matters
- can understand conversations on basic, everyday subjects
- knows the main difference between spoken and written Finnish
- can deal with simple situations likely to arise when travelling
- can tell about his/her home and his/her job
- can tell about his/her hobbies and free time
- can express his/her feelings.

Upon successful completion of the course, the student should be on their own way to level A2 in most of the language skill areas - speaking, listening, reading and writing. Level descriptions can be found at http://www.coe.int/t/dg4/education/elp/elp-reg/Source/Global_scale/globa...

Course contents

This course increases student's knowledge of Finnish language and culture. The purpose is for students to achieve basic language skills that enable them to cope in everyday situations and participate in everyday communication. Themes handled during this course are everyday life, home and travelling, food and drinks, celebrating different holidays in Finland and elsewhere, work and free time. The grammar studied during this course:

- Consonant gradation and other changes (in the stem) of nouns and verbs
- Local cases of nouns (Where? Where from? Where to?)
- T-plural
- Pronouns
- Partitive plurals
- Ordinary numbers
- Postpositions

- Basics of the object
- Some word types

Learning materials

- Gehring, Sonja & Heinzmann, Sanni: Suomen mestari 1. Finn Lectura. Helsinki. Chapters 5-9. (Required)
- Finnish-English-Finnish Dictionary (Recommended)
- other material provided by teacher

Learning methods

Contact hours: oral and written exercises individually and in pairs, group work, tests

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

The assessment of one's own learning 1 h

Recognition of prior learning (RPL)

The students who start their studies in Bite programme and already know some Finnish, can pass the course and gain the credit points by attending a level test. Written part of the test is organized during the orientation weeks in August or January and the oral part later in the 4th/1st period according to a separate schedule.

Working life connections

The students improve their opportunities to get employed in Finland.

Internationality

International students. Differences between Finnish and other cultures.

Assessment criteria

Active participation in lessons 20 %

Small tests and/or assignments 30 - 40 %

Final examination 40 - 50 %

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development. The assignment is completed online in WinhaOpaali.

The course is evaluated on a scale from 1 to 5.

Grade 1

- The student knows some of the basic Finnish vocabulary, and is able to understand some basics in texts and spoken Finnish in everyday situations. He/she knows a few basic differences between spoken and written Finnish.
- The student can somewhat use the vocabulary and grammar handled during the course. He/she has limited capability to interact in simple everyday situations.
- The student has limited motivation to take responsibility for his/her learning process. He/she is able to deal with some of the communicative situations handled during the course.

Grade 3

- The student knows and understands basic Finnish vocabulary and understands basics in texts and spoken Finnish in everyday situations. He/she knows differences between spoken and written Finnish.
- The student can use the vocabulary and grammar handled during the course. He/she is capable to interact in simple everyday situations.
- The student is motivated to take responsibility for his/her learning process. He/she can somewhat master the communicative situations handled during the course

Grade 5

- The student knows and understands basic Finnish language well. He/she understands basic texts and spoken Finnish in everyday situations very well. He/she knows the main differences between spoken and written Finnish.
- The student can very well use the vocabulary and grammar handled during the course. He/she is fully capable and confident to interact in simple everyday situations.
- The student is well-motivated to take responsibility for his/her learning and participates actively. He/she can fully master the communicative situations handled during the course.

Course teachers

Taija Hämäläinen, Pasila

Laura Uusitalo, Pasila

Finnish 3

Code: FIN4TF012

Scope: 5 ECTS

Timing: 3rd semester

Language: English and Finnish

Curriculum: 1.8.2015

Level: Common core studies -> International Communications

Type: compulsory* (*required only of foreign students in BITE programme)

Starting level and linkage with other courses

The student has successfully completed the courses Beginners' Finnish (FIN4TF010) AND Beginners' Finnish 2 (FIN4TF011) or acquired this level in the entry level test in Finnish.

Learning objectives and assessment

This course develops student's ability to understand and use Finnish language further and activates the language skills learned earlier. The students are encouraged and able to use Finnish in everyday situations.

Upon successful completion of the course, the student

- can introduce his/her own culture or other topics of interest
- knows the basics of Finnish working life and job application process
- has experience of preparing and having a short presentation in Finnish
- can tell about his/her past
- develops vocabulary and speaking skills, and also the knowledge of Finnish grammar.

Upon successful completion of the course the students should be at level A2+, on their way to level B1, in most of the language skill areas - speaking, listening, reading and writing. Level descriptions can be found at

<https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=090000168045b15e>

Course contents

Themes handled during the course are health, travelling, presentations, Finnish working life, CV and job application

The grammar which is studied during the course:

- past tense forms of verbs (simple past and perfect tenses)
- object
- imperative forms of verbs
- pluperfect forms of verbs
- 3. infinitive forms of verbs.

Learning materials

- Gehring, Sonja & Heinzmann, Sanni: Suomen mestari 2. Finn Lectura. Helsinki. Chapters 1 - 4. (Required)
- Finnish-English-Finnish Dictionary (Recommended)
- other material provided by teacher

Learning methods

Contact hours: oral and written exercises individually and in pairs, group work, tests

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

The assessment of one's own learning 1 h.

Recognition of prior learning (RPL)

The students who start their studies in BITE programme and already know some Finnish, can pass the course and gain the credit points by attending a level test. Written part of the test is organized during the orientation weeks in August or January and the oral part later in the 4th/1st period according to a separate schedule.

Working life connections

The students improve their opportunities to get employed in Finland.

Internationality

International students. Differences between Finnish and other cultures.

Assessment criteria

Active participation in lessons 20 %

Assignments and/or tests 30 - 40 %

Final examination 40 - 50 %

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development.

The course is evaluated on a scale from 1 to 5.

Grade 1

- The student can understand many sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, and employment).
- The student can somewhat use the vocabulary and grammar handled during the course. He/she can describe in very simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.

- The student has limited motivation to take responsibility for his/her learning process. He/she is able to deal with some of the communicative situations handled during the course. He/she can communicate in very simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.

Grade 3

- The student can understand most of the sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, and employment).
- The student can use the vocabulary and grammar handled during the course. He/she can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
- The student is motivated to take responsibility for his/her learning process. He/she can somewhat master the communicative situations handled during the course. He/she can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.

Grade 5

- The student understands easily sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, and employment).
- The student can very well use the vocabulary and grammar handled during the course. He/she can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.
- The student is well-motivated to take responsibility for his/her learning and participates actively. He/she can fully master the communicative situations handled during the course. He/she can communicate fluently in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters.

Course teachers

Taija Hämäläinen, Pasila
Laura Uusitalo, Pasila

ICT and Business English

Code: ENG1TF010

Scope: 5 ects (135 h)

Timing: 2nd semester

Language: English

Course level: core studies

Course type: compulsory

Learning objectives and assessment

Passed course is assessed on a scale of 1 to 5.

Grade 1 (A2.2-B1.2)

The student has a limited knowledge of basic English vocabulary used in ICT contexts and is able to produce written documents at a passable level.. The student performs oral tasks at a basic level with clear difficulties at conveying the intended message due to e.g.a very strong accent, grammatical mistakes and lack of words.

Grade 3 (B2.1-B2.2)

The student has an intermediate knowledge of ICT vocabulary. He/she is able to explain the meaning of ICT concepts using standard vocabulary. He/she is able to complete the written course assignments following, for the most part, the correct formats and academic traditions. As for the student's oral skills, there is still some hesitation, but that only occasionally impedes communication.

Grade 5 (C1-C2)

The student's ICT vocabulary is at an advanced level. He/she demonstrates knowledge of idiomatic ICT and business English, and is able to carry out discussions and debates successfully. .. The student produces high-quality ICT texts that follow the correct formats and academic traditions. The student is able to give fluent presentations in an engaging manner.

Contents

- producing coherent ICT/Business-related texts and a longer Media Survey Report
- enhancing students' overall oral competence acquiring information on the latest concepts in ICT/Business using various literal and online sources

Starting level and linkage with other courses

English Level Test

Working life connections

Current trends in the field of ICT/Business are closely monitored. An ICT professional's presentation.

Internationality

The course is inherently international.

Learning methods

The learning methods of this course are the following:

- a. contact lessons
- b. independent studies
- c. virtual/blended learning

NOTE: Autumn 2017 semester this course is offered solely as a virtual implementation with four contact sessions.

Course teachers

Riitta Blomster

Communication in Multicultural Environments

Code: COM1TF012

Scope: 5 ects (135 h)

Timing: 2nd semester

Language: English

Curriculum: DIG2015

Course level: core studies

Course type: compulsory

Learning objectives

Upon successful completion of this course, the students will be able to increase their cross-cultural communications skills in global and culturally diverse work environments. This will be accomplished through comparing and contrasting key dimensions in global cultures. One of the main goals is appreciating how reaching multicultural synergy benefits individuals and companies. A key learning point is positioning your own culture in universal systems.

Content

Topics to be covered on the course include the following:

- The nature of multicultural communication; concept of culture
- Universal systems, contrasting cultural values and cultural clashes
- Verbal and nonverbal communication
- Business and social customs; global etiquette
- Intercultural negotiations and virtual meetings

Assignments and course agenda:

- Introduction and dividing the students into teams. Discussing the concept of culture. (Culture can be global, local, geographical or demographical and there can be subcultures and subgroupings.)
- Individual oral or written assignment: My cultural conflict. (Explaining personal experiences of culture shock, understanding the dynamics of an acculturation process, as well as concepts of ethnocentrism and stereotypes.)
- Team assignment: Watching a videoed lecture by a specialist. Analyzing that lecture within your team. Comparing and contrasting Finnish culture with some other culture and its values.
- Team assignment: Creating an educational video that describes the communications or work culture in one country to an audience of expatriate employees.
- Team assignment: Writing a comparative cultural report on two countries according to HH guidelines.
- Team assignment: Recording a video or giving an oral presentation based on your comparative cultural report.
- Individual assignment: 1-2 peer evaluations; assessing the shared work effort in your team and/or evaluating some of the course material according to Lewis and Hofstede models.

Assessment

Passed course is assessed on a scale of 1 to 5.

Grade 1

The student can present values, communications and cultural features pertaining to a country and understands the importance of cultural sensitivity and global awareness. The quality of work and participation is uneven.

Grade 3

The student celebrates diversity and understands the possible negative effects of cultural miscommunication. The student can compare and contrast values, communications and cultural features in two countries constructively and understands how selected cultures can be positioned in universal systems. Even contribution in group work, active participation and good quality of work.

Grade 5

The student understands the personal and corporate benefits of cultural synergy and knows how to improve intercultural communication and behavior in conflict situations. Universal cultural systems have been internalized and the person understands how to apply these theories into new situations. Impressive contribution in the team's work effort, active attendance and participation, as well as excellent quality of work.

Preparing in advance, timely execution in all assignments and active participation during sessions is required and does have an impact in evaluation.

Course material

Provided or informed by the teacher.

Haaga-Helia Reporting Guidelines

Richard D. Lewis: When Cultures Collides – Leading Across Cultures

Chaney and Martin: Intercultural Business Communication

Geert Hofstede website

Recognition of prior learning (RPL)

Recognition of prior learning (RPL) is a process where prior learning will be assessed in consideration of current studies. Prior learning should be based on work experience in global positions, where the working language has been English. If the student wants to pass the course by using (RPL/AHOT), the student has to enroll on the course officially and contact the teacher of

the course to start the RPL/AHOT procedure. Official enrollment includes registration through Winha and being present on the first lecture.

Starting level and linkage with other courses

No special requirements or prior studies.

Working life connections

Current international trends in the field of ICT/business are closely monitored.

Internationality

Timetables allowing, the implementations are comprised of students from both the Finnish and international degree programs, including exchange students. Presentations of international ICT professionals are included, when applicable.

Learning methods

Contact lessons, independent studies, group learning, written report, presentation, virtual and distant learning.

Responsible teachers

Eija Hansén

Tarja Paasi-May

Outi Valkki

Office Tools in Sales and Services

- Course code: SAL1TF001
- Extent: 5 cr (135 h)
- Period: 1st semester
- Language: English
- Level of studies: core studies
- Type of studies: compulsory

Course contents

Sales and Services (2 ECTS)	Office Tools (3 ECTS)
<p>What is modern sales</p> <p>Sales meeting and sales process</p> <p>IT-specialist in customer interface</p> <p>Customer insight</p> <p>Customer experience</p> <p>Value creation process</p> <p>Features – benefit – advantages</p> <p>Sales presentations</p> <ul style="list-style-type: none"> • presentation skills, presentation • sales documents 	<p>Word processing:</p> <ul style="list-style-type: none"> • own template and styles • different headers and footers • forms (fields) • sales documents • mailing documents • reports (section break, table of content) <p>Basics of spread sheet calculation:</p> <ul style="list-style-type: none"> • formulas, functions • charts • tables, data bases, Pivot tables <p>Presentation graphics:</p> <ul style="list-style-type: none"> • producing a sales presentation • producing an own template • using animations <p>Producing the selected sales material by using Office Tools.</p> <p>Summarising the sales and service promise by producing such sales material.</p>

Course material

Provided or informed by your teacher.

Working life and co-operation with companies

These examples and home assignments are like they normally are in real companies and customer situations.

Teaching and learning methods

Contact lessons, home assignments, group learning, case, net studies.

Assessment criteria

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development. The assignment is completed online in WinhaOpaali. It is possible to pass the course by different assignments and contact lessons.

Level 1-2 (pass)

Student

- can partly describe the sales process and the role of IT-specialist in sales.
- can partly take into account the customer view in providing services.
- can differentiate solutions' features and benefits.
- knows all central terms concerning the theme.
- knows the principles of the central tools.
- can use tools according to the instructions of the teacher.

Level 3-4 (good)

Student

- can describe the sales process and the role of IT-specialist in sales.
- can take into account the customer in providing services
- knows the terms of providing value.
- can explain customer benefits of IT-solutions.
- can use all central tools effectively and in a flexible way.
- is active and interested.

Level 5 (excellent)

Student

- can describe the sales process and the role of an IT-specialist in sales very well
- can actively suggest solutions for customer needs based on customer understanding and value creation
- can explain IT-solutions' customer advantages in an excellent way.
- knows all the tasks of the field in an excellent way.
- can use professionally and independently all the central tools.
- wants to find more information and try to develop his/her own professionalism during the studies.

Recognition of prior learning (RPL)

Recognition of prior learning (RPL) is a process where prior learning will be assessed in consideration of current studies. Prior learning can be based on prior studies or work experience. If the student wants to pass the course by using AHOT, the student has to enroll normally for the course and contact the teacher of the course to start AHOT-procedure.

Pre-exam

Not any pre-exam.

Teachers responsible

Office Tools: Anitta Orpana

Sales and Services: Heidi Kock

Starting level

Not any requirements or prior studies.

Learning outcomes

After the course, the student

can use Office Tools effectively both in work and studies. understands the concept of modern sales and knows the role of an IT specialist in sales can turn features of IT solutions into customer benefits can explain customer-oriented thinking understands the concept of customer experience. can use Office Tools effectively to support the sales process, for instance

- produce marketing material
- produce presentations for customer meetings

Selling ICT Solutions

- Course code: SAL1TF002-1
- Extent: 5 ECTS (135 h)
- Timing: 5th semester
- Language: English
- Level of studies: Professional Studies
- Type of studies: Compulsory

Starting level and linkages with other courses

Tools in sales and service business (environment), Orientation in ICT and Business, Business Operations.

Learning outcomes

Student

- learns the solution sales process through theory and practice
- learns techniques and negotiation skills required at different stages of sales process
- understands the challenges in diverse areas of IT solution sales
- becomes aware about his/her own skill profile and knowing where to learn more

Grading	1 (min. 40 % of the target level met)	3 (min. 70 % of the target level met)	5 (min. 90 % 40 % of the target level met)
Knowledge	The student knows in some respects the steps of the solution sales process and the techniques used in the various phases.	The student knows the steps of the solution sales process and the techniques used in the various phases.	The student knows very well the steps of solution sales processes and the techniques used in the various phases.
Skills	The student is able to partially exercise various techniques and tools at the various stages of the solution sales process and in group negotiations.	The student is able to exercise various techniques and tools at the various stages of the solution sales process and in group negotiations.	The student is able to exercise well various techniques and tools at the various stages of the solution sales process and in group negotiations.

Competence	The student participates less actively in group working. Low level of contribution on course.	The student is actively involved in group working. She/he can work quite independently. Active participation in team work.	Extremely active participation in the team's work. Good ability to act independently. Innovativeness, positive attitude and compliance with schedules.
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The course is evaluated on a scale of 1 - 5. The evaluation criteria are presented on a scale of 1- 3 - 5.

Identification and Recognition of Prior Learning (RPL)

Students having previously acquired knowledge and/or skills relevant with the contents of course, it is possible to accomplish the course either fully or partially based on prior learning/experience. To know more, please contact the responsible teacher (see down here).

Working life connections

The sales cases on the course are based on actual biddings and sales projects and visitor lecture(s).

Course contents

- Selling and sales organizations
- Customer understanding
- Customer Value creation
- Solution sales process
- Tendering
- Solution Negotiations

International dimension

The course utilizes international sales and marketing material.

Ways to learn

The Learning Outcomes of this course can be achieved in the following ways:

- a. Standard course: Contact lessons including activities on lessons, multi-dimensional learning (e.g. some part of the activities is done virtually at home) or an intensive course type of learning OR
- b. Virtual, net-based learning based on assignments – limited number of seats available
- c. Participation in a working life project or other project and some learning assignment depending on the type of project
- d. Learning in your own work -“studyfication” . A plan required.

The course also includes the compulsory self-assessment.

Assessment methods and their weights

Completion of the course requires completion of the assignments and participation in doing the assignments.

The self-assessment assignment does not affect the grade. The assignment is like in any of the Haaga-Helia's courses and the answers are used to develop the course / study module. The task is done using an E-form.

Responsible teacher(s)

Pekka Kamaja; pekka.kamaja@haaga-helia.fi; voice: +358504887151

Counselling: to be agreed by email

References

Primary sources

Johnston, M. & Marshall, G. 2013. Contemporary Selling - Building relationships, Creating Value. Routledge.
Eades, K. & Touchstone, J. & Sullivan, T. 2005. Solution Selling Fieldbook. McGraw-Hill.
Eades, K. 2004. The New Solution Selling, The Revolutionary Sales Process That is Changing the Way People Sell. McGraw-Hill.

Other references

Rackham, N. 2009. Spin Selling. Gower.
Rackham, N. 1996. The Spin Selling Fieldbook. McGraw-Hill.
Eades, K. & Sullivan, T. 2014. The Collaborative Sale. Wiley.
Handouts on lessons

Implementation plan

Contact lessons: ca. 5-6 theory lessons a 2,5 h and 5 negotiations in buyer and seller roles, 1 h = 20 h

Independent studying and teamworking 108 h

Assessment of your own learning 2 h

Assessment and Evaluation criteria

The course is run by doing the learning tasks, no exam. The evaluation also based on the participation in teamwork.

1. Activity on lessons 20 %
2. Individual and group assignments 30 % (period 1 or 4)
3. Sales negotiation material, 20 % (period 2 or 5)
4. Selling negotiation process 30 % (period 2 or 5)

Feedback

The course held on Spring 2018 is the first implementation. The design takes into account the experience of similar courses in business economics.

Innovation and Project Work

- Code: PRO1TF001
- Scope: 10 credit units (270 h)
- Timing: 2nd semester
- Language: Finnish, English
- Course level: Basic
- Course type: Compulsory

Learning objectives

After completing the course, the student is able to act responsibly and pro-actively in group work. Students are able to apply the methods of brainstorming creative innovation development activities, as well as customer- and solution-oriented. Students are able to introduce an innovative product, using visual aids. Students can perform and build solutions according to given concepts and carry out implementation phase of the project.

Students are familiar with project management practices and they are able to prioritize project goals and project related tasks. They can manage tasks of project organizations for preparing the project. The student knows the most important practices of project communication and they are able to act responsibly with the different parties and to tell a convincing progress of the project. The course learning objectives will be achieved mainly through exercises and group work.

Content

The course is based on the issues or subjects put forward by the visiting companies. The ideas are being developed in groups of innovation, and the development of innovation is controlled in accordance with good project working methods. Project Communication is mainly based innovative groups and project work.

- Innovation: concepts, steps and requirements, brainstorming and analysis methods for user-centered approach including aids for structuring ideas
- Conceptualization: definition of the concept and describing, presenting and testing and the releasing
- Project stakeholders and the organization's responsibilities, evaluation and definition of the scope of the project, project risks and their anticipation
- Project management: preparation of the project, design, control and finalizing the project. The project management templates and project management tools
- Project communication: interaction of the project team, project reporting and documentation, project meetings

Starting Level and linkage with other courses

No prerequisites

Assessment

Grade 1

Familiar with innovative methods, to outline the core elements of innovation, as well as to know the main features of the innovation project. Familiar with project management methods and

identify project stakeholders and the project team responsibilities of the project task and communication.

Grade 3

The student is familiar with the basic concepts of innovation activities and he/she is able to choose methods to solve practical problems. The student can identify the stages of innovation and is able to work in the innovation project team member. He/she Can select a suitable project control practice to distribute the project task in suitable work projects, manage responsibly the tasks assigned to themselves and to communicate smoothly with the project stakeholders, as well as showing interest in the project to develop the control and communications tasks.

Grade 5

The student is familiar with innovation concepts and knows how to apply methods to solve practical problems, innovation steps and requirements. He/she is able to implement and manage the project's user-focused innovation. The student is capable to improve innovation process and project practices in his/her community.

Working life connections

Innovation operations are examined from the perspective of the visiting companies or R&D-projects. Companies or R&D projects members will present their own innovative activities as well as innovation and ideas for themes in its area. Groups of students will select and pick up the presented case or they can present own topic. Companies or R&D projects may be presented during the course. The results of the topics will be presented in the end of the course.

Internationality

Lectures and related exercises, partly network implementation
Work in the project or any other project participation
Examination and / or assignment (s)

Learning methods

This course learning outcomes can be achieved in the following ways:
Lectures and related exercises daily Intensive and multi-mode options available
Work in the project or any other project participation
Own work-based learning

Responsible teachers

Innovations: Ari Alamäki, Lili Aunimo, Tiina Koskelainen, Ohto Rainio, Teemu Ruohonen and Tuomo Rynnänen
Projects: Jukka Mutikainen, Anne Valsta, Pekka Kamaja and Outi Virkki
Communications: Pilvi Heinonen and Tarja Paasi-May

Project Management

- Code: BUS1TF107
- Extent: 5 cr (162 h)
- Timing: 4th-5th semester
- Language: English
- Level: Professional studies
- Type: Compulsory

Starting level and linkage with other courses

Student has passed all 1-2 semester compulsory courses. The course Innovation and Project Work must be passed.

In addition, having completed work placement helps participation in the course, due to having some of the knowledge and experience of project work and development process of business information systems.

Students are recommended to participate in the Project Championship competition which is credited as an own course or by letting free to do some of the duties on the course (test and/or groupwork). However, crediting depends on the level the student (in team) reaches in PMC contest run in two rounds.

Learning outcomes

The course familiarizes students with understanding of corporate IT development projects and their implementation as disciplined and well managed projects. Practically, the course enhances students' abilities to work in business information systems development projects and enables them to gradually take more responsibility in managing projects.

Course contents and schedule

The course is accomplished during the periods 1-2 / 4-5. The course is divided into five two-week modules and one after them (module 6), which is a study project by own choice in teams in 4 study weeks.

Module 1 – Introduction: Rationale for IT-project failures; Project Lifecycles vs. Systems Development (IT) Life Cycles (incl agile approach); Project management as a platform -overall view on managing projects.

Module 2 - Initiation and early planning stage: Cost benefit analysis; Writing a Business case report, and communicating with sponsors.

Module 3 – Project schedule planning: Techniques involved in WBS; Effort analysis, Scheduling

Module 4 – Structures: Project organisations, Team working, Resource management

Module 5 - Change management. CM from individual, IT-expert, Organisation points of view.

Module 6 - Groupwork

Cooperation with the business community

Visiting lecturer(s), events (voluntary), project management cases, magazines, videos.

International dimension

Methods, examples and ways of working apply approved and widely used international program and project management standards and disciplines. Also the cross-national and intercultural aspects global projects are focused.

Teaching and learning methods

Until the maturity test, the course is run on biweekly system and in groups. The given assignment bundle is instructed in the beginning of the cycle (two weeks) and then reported afterwards in two weeks. In-between the teacher is available for supporting teams. After the maturity test, teams will do a study project.

Learning methods are Teacher's briefings on the topic, biweekly assignments and their reflection mutually and (option) visitor lecture(s), assignments on lessons, videos plus literature (magazines, research papers), reading course books and participation on maturity test (course week 12 or so).

Focus of learning is on the information system project management methods and practices and, exercising practical project management problems. Practical project manager problems/challenges are also exercised (Integration management; Scope management; Communication; Team working practices in global settings; Project Manager roles).

- Contact hours ca. 32 h
- Individual assignments and team work 128 h
- Test (exam) 2 h.

Teacher responsible

Pekka Kamaja

Course materials

- Marchewka, J.T. (2015), Information Technology Project Management 5th ed.
- Schwable, K., (2013) Information Technology Project Management
- PMBOK, Project Management Body Of Knowledge (2009)
- Wysocki, Robert K. (2009): Effective project management: traditional, adaptive, extreme
- Case studies and Best Practise material taken from diverse sources (given on lessons)
- Other literature (available on Moodle)

Assessment criteria

- Test (Exam) 25%
- Individual assignments 30 %
- Teamwork 30 %
- Activity on lessons and participation on visitor lectures 15 %

Components	1	3	5
Knowledge	<p>Has a basic knowledge of the principles of IT project management.</p> <p>Has a basic knowledge of the project management processes</p>	<p>Has a good knowledge of the principles of IT project management. Is motivated in identifying and analyzing the context and the performance of successful IT projects.</p> <p>Has a passable knowledge of the project management processes.</p>	<p>Has a very good knowledge of the principles of IT project management. Is highly motivated in identifying and analyzing the context and the performance of successful IT projects.</p> <p>Has a good knowledge of the project management processes.</p>
Skills	<p>Has passable skills 1) in demonstrating the use of some of the PM-tools. 2) in presenting the student presentations and the assignments done in teams as well as in explaining project management concepts.</p>	<p>Is somewhat fluent in presenting the student presentations and the assignments done in teams as well as in explaining project management concepts.</p>	<p>Is highly fluent in presenting the student presentations and the assignments done in teams as well as in explaining project management concepts.</p>
Competence	<p>Possesses a rudimentary understanding of the IT-project methodology and is able to apply some of the methods and the tools learned during the course in practice.</p>	<p>Possesses an eligible understanding of the IT-project methodology and is able to apply the methods and the tools learned during the course in practice.</p>	<p>Possesses a solid understanding of the IT-project methodology and is very skillful in applying the methods and the tools learned during the course in practice.</p>

Recognition of prior learning (RPL)

To get a passing (P) grade and exemption from the course, student must display and demonstrate the competence by certificates from earlier studies or work experience covering the course

objectives and contents. Also, managing an IT-project or holding an active role in IT-projects is subject to the RPL. It is possible to participate in the competence demonstration only once before taking the course.

Business Mathematics

Code ID: MAT1TF010

Scope: 5 ects (135 h)

Timing: 3rd semester

Language: English

Curriculum: DIG2015

Course level: core studies

Course type: compulsory

Learning outcomes

Upon successful completion of the course, the students

- knows statistical basic concepts and can apply them in business
- manages most often repeated calculations in business
- is able to price products and services
- is able to compose calculations of profitability
- can calculate impact of general price changes
- can present time series by Excel
- manages simple interest and compound interest calculations
- is able to choose correct calculation method for every day problem
- can compare profitability of different investment options
- is fluent with Excel in business calculations

Learning outcomes will be reached mostly by completing assignments.

Contents

- statistical basic concepts (presenting data, measure scales, variables, grouping, most common parameters, correlation and regression)
- percent calculations for business applications, value added tax
- profitability calculations
- index numbers
- time series with Excel
- simple interest and compound interest
- periodic payments
- investments
- Excel tools

Starting level and linkage with other courses

No prerequisites.

Evaluating

Passed course is graded on scale 1 - 5

Grade 1

Moderate understanding of course items and partial ability to apply them in business situations. Can define most common concepts and is able to use them in wider contents.

Grade 3

Reasonable understanding of course items and sufficient ability to apply them in business situations.

Can define and apply concepts in wider contents. In business problem situations is able to choose a correct calculation methods and interpret result to accurate decision.

Grade 5

Good understanding of course items and good ability to apply them in business situations. Is able to define and apply all necessary concepts in wider contents. Has no problem in choosing correct calculation methods for most common business problems and deeply knows how to interpret calculation results to business decisions.

Working life connections

Course content as itself is deeply connected to business practices.

International dimensions

Items which are learned in the course can mostly be applied internationally.

Learning methods

The learning methods of this course are the following:

- a. Contact lessons, assignments and exam(s) OR
- b. Independent studies, assignments and exam(s) online OR
- c. Appropriate passed course in some other institute or passing an exam to present sufficient skills

Learning material

Any statistics or financial calculation related book.

Material supplied in contact classes or online by teacher.

Students own evaluating as well as course feedback is part of the course.

Course teachers

Kalevi Keinänen, Jukka Mutikainen and Mikko Valtonen

Business Operations

Code: BUS1TF011

Scope: 5 cu

Timing: 1. or 2. semester

Language: English

Course level: Basic

Course type: Mandatory

Learning objectives

Upon successful completion of this course, the student gets a solid understanding of different kind of businesses and their functions, structures and ways of operations. Students also learn to analyze, present and report the business of a selected case company.

Content

Topics to be covered in the course include the following:

- Company foundation and key principles
- Business environments and boundaries of business organisation
- Value adding, business functions and operations and related analysis methods
- Entrepreneurship and company growth
- Financial perspective on managing companies
- Case company and industry analysis

Starting Level and linkage with other courses

No precedencies

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

Has a basic knowledge of the principles of business environments and running business companies. Is interested in identifying and analysing market and competition, company structures, business operations and financial performance of companies. Possesses a rudimentary understanding of the business analysis methods and knows how to apply the methods and concepts learned during the course in practice. Is passable in presenting the company analysis reports as well as in explaining the business concepts. Has a basic knowledge of the business processes.

Grade 3

Has a good knowledge of the principles of business environments and running business companies. Is motivated in identifying and analysing market and competition, company structures, business operations and financial performance of companies. Possesses an eligible understanding of the business analysis methods and is enough skilful in applying the methods and concepts learned during the course in practice. Is fluent in presenting the company analysis reports as well as in explaining the business concepts. Has a basic knowledge of the business processes.

Grade 5

Has a very good knowledge of the principles of business environments and running business companies. Is highly motivated in identifying and analysing market and competition, company structures, business operations and financial performance of companies. Possesses a solid understanding of the business analysis methods and is very skilful in applying the methods and concepts learned during the course in practice. Is highly fluent in presenting the company analysis reports as well as in explaining the business concepts. Has a good knowledge of the business processes.

Working life connections

Visitor lectures, case company and industry analysis

Internationality

Case company studies are selected among HEX25 companies. Working material is focused on exercising international business.

Learning methods

Lectures, visitor lectures, videos on topical subjects, individual assignments, business case study project in groups, exam.

Responsible teacher

Pekka Kamaja

Orientation to Software Engineering

- Code: SWD1TF001
- Scope: 5 ECTS (135h)
- Timing: 1.semester
- Language: English
- Curriculum: DIGIE
- Course level: Basic studies
- Course type: Compulsory

Starting level and linkage with other courses

No prerequisites.

Learning objectives

Student is able to explain the software engineering profile and the rough contents of its courses. She/he is able to communicate the components and phases of software engineering (software development). She is able to implement web pages that contain simple functionality implemented with browser programming. She is able to use the needed development tools and publish the pages on a web server. She is able to utilize technical documentation while needing information or help.

The course gives a broad view on Software Engineering and software development, and the brief basics of programming:

- software engineering; goals, main concepts, and challenges
- main phases/disciplines in software engineering processes
- few methods and models visualizing the software development work in practice
- main principles for creating technically sound web pages (with HTML5 and CSS)
- development environment and publishing the web site on a web server
- all linkages between the web page and the JavaScript program
- designing and implementing simple programming logic (with JavaScript, i.e. ECMAScript)
- using following features of the programming language: selection and repetition structures, arrays and functions
- the technical documentation needed in basic web development and the ways to utilize it

Assessment

Accepted course is evaluated with grades 1 to 5. Assessment is based on exam(s) and individual work (activity and personal tasks, social contribution in the group)

Grade 1

Student shows passable activity in class and individual studying. Has passable understanding of the course contents, core concepts and terminology. Has passable knowledge and skills in creating an application using the skills taught on the course. Often needs some assistance in solving basic problems. Has some difficulties in using the course materials to support own learning.

Grade 3

Student shows good activity in class and individual studying. Has good understanding of the course contents, basic concepts and terminology. Has good knowledge and skills in creating an application using the skills taught on the course. Sometimes needs assistance in solving basic problems. Can use the course materials in an effective way to support own learning. Can find some more information from other sources.

Grade 5

Student shows excellent activity in class and individual studying. Has excellent understanding of the course contents, basic concepts and terminology. Has excellent knowledge and skills in creating an application using the skills taught on the course. Can independently solve problems. Can fluently use the course materials and other sources to support own learning. Can independently find more information from other sources. Can independently learn more details of course topics. (Though knowing the given material is enough for the best grade)

Working life connections

Visiting lecturers telling about the many kinds of jobs available in the software development.

Internationality

Students will be a mix of Finnish students, curriculums' foreign students, and Erasmus exchange students. International learning material used.

Learning methods

Individual activity is emphasized. Students will also learn how to learn technical issues. That must be the main goal of the first semester studies.

- a. Contact course: 56h contact hours (short lessons, guided individual and group work labs, exams) and 78h of Independent work in labs or at home **OR**
- b. Recognition of prior learning (RPL): Exam that profoundly covers the course learning goals and presenting and professionally explaining own web application that exceeds the course requirements.

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers are used for course/module development.

Course teacher(s)

Juhani Välimäki

Kari Silpiö

Juha Hinkula (not spring 2017)

Orientation to Digital Services

- Code: DIG1TF001
- Extent: 5 op (135 h)
- Timing: 1st Semester
- Language: English
- Level: Basic studies
- Course type: Mandatory

Learning outcomes

After passing this course, the student

- Recognizes the potential of digital services.
- Understands the significance of the user experience and usability.
- Is able to design and create a user interface.
- Is able to analyze a digital service.

Content

- Introduction to digital services
- The concept of usability
- The concept of user experience
- Design and execution of a responsive user interface
- Multichannel digital media
- Analysing and designing a digital service

Starting level and linkage with other courses

None.

Assessment criteria

Grade 1

The student recognizes a digital service, knows the basics of user experience and usability and also is able to design and execute a user interface under guidance. The student understands the significance of digital service analysis.

Grade 3

The student recognizes the potential of a digital service, understands the significance of user experience and usability and is also able to independently design and execute a user interface. The student is able to analyze a digital service.

Grade 5

The student is able to utilize effectively the potential of a digital service, utilizes user experience and usability in an effective way and is also able to independently design and execute a high-quality user interface. The student is able to analyze a digital service in a professional manner.

Co-operation with the business community

Small projects may be completed during the course.

International aspects

International materials and softwares.

Learning methods

Contact hours, network-based learning. Individual activity. Also possible to recognition of prior learning (RPL). Self-reflection on individual learning.

Course teacher(s)

Kasper Valtakari

(Amir Dirin)

Orientation to ICT Infrastructure

- Code: ICT1TF010
- Extent: 5 cr (135h)
- Timing: 1st semester
- Language: English
- Level: core studies
- Type: compulsory

Starting level and linkage with other courses

No requirements.

Learning outcomes

Upon successful completion of the course, the student can:

- Recognize the computer structure and functions.
- Start to use operating system.
- Identify the ICT infrastructure structures and functionalities.
- Recognize information networks and networked services operating principles.
- Identify security threats.
- Operate in network- and system environments taking into account information security.

Course contents

- Hardware configurations and interfaces
- Operating Systems: Windows and Linux
- Workstations and servers
- Information security, anti-virus programs, malware, network security
- Data network structure and functions.
- TCP / IP protocols, networking devices.

Course material

- Course material (Moodle)
- Online material
- Other appropriate materials, handouts

Working life and corporate cooperation

Students are able to use the workstation safely.
Guest Lectures are organized if feasible.

Teaching and learning methods

The studies consist of classroom teaching (48h) and the student's independent study (87h).

Assessment criteria

The course is assessed by the assignments and exams.

The evaluation of own learning do not affect to the course grade. The task is the same for all the study modules and answers are used in the study unit development. The task is made in WinhaOpaali.

Level 1-2 (passed)	Level 3-4 (Good)	Level 5 (excellent)
Student <ul style="list-style-type: none">• Shows sufficient activity in studying.• Can explain the issues discussed in the course.• Can use the course basic content.• Needs often assistance in problem situations, and in the interpretation of the course material	Student <ul style="list-style-type: none">• Shows good activity in studying.• Can explain well the issues discussed in the course.• Can use the course content in a versatile way• Needs sometimes assistance in problem situations, and in the interpretation of the course material	Student <ul style="list-style-type: none">• Shows excellent activity in studying.• Can explain excellently the issues discussed in the course.• Can apply the course content in a versatile way.• Can independently examine and solve problems and retrieve information from different sources.

Recognition of prior learning (RPL)

Accreditation of prior learning is a process whereby, through assessment, credit is given to learning which has already been acquired in different ways, e.g. earlier studies or working experience. APL gives a student an opportunity to demonstrate his/her knowledge and skills. A student displays with the competence demonstration that s/he manages the course objectives and contents mentioned in the course description. It is possible to participate in the competence demonstration only once before taking the course. A competence demonstration is assessed on the scale from 1 to 5.

Teachers responsible

Hirvonen Petri, Holmström Harto, Korhonen Olavi, Merilinna Juhani, Ruohomaa Timo

Orientation to Business and ICT

- Code: BIG1TF001
- Extent: 5 cr (133 h)
- Timing: 1st semester
- Language: English
- Level: Core studies
- Type: Compulsory

Starting level and linkage with other courses

This course is an introductory course to the ICT and Business path. No prerequisites.

Learning outcomes

The student is familiar with a variety of corporate ICT systems and their functionality and role in the development and enablement of successful business. The goal is that the student:

- Realizes the importance and the role of data in the business environment
- Recognizes the most common systems and their role in business
- Understands the role of IT systems in enablement and development of business
- Is familiar with the System Development Life Cycle, understands the role of different development stages and embraces business oriented development principles
- Realizes the role of ICT management and governance

Course contents

- The most essential ICT systems in the business environment
- Different system categories and the main resources of ICT systems
- Business driven system development life cycle and development projects
- The most central integrated systems and their business processes (ERP, CRM, SCM, BI)
- Important key ICT/Business concepts
- The ICT environment and the different roles of ICT
- The role of ICT: introduction to ICT management and governance

Course materials

- Business Information Systems - Technology, Development and Management for the E-Business. Paul Bocij, Andrew Greasley, Simon Hickie. ISBN: 978-0-273-73648-6. Fifth edition, Pearson Education Limited 2015.
- Material and links provided in the E-learning environment or otherwise instructed by teacher.

Cooperation with the business community

1 -2 guest lecturers

Teaching and learning methods

- Team- and individual tasks and hands-ons (70 h independent work)
- Lectures, lecture material and coaching (60 h)
- Exam (2 h)
- Assessment of one's own learning 1 h

International dimension

The course utilizes international material as well as applications in English.

Assessment criteria

- Team and individual tasks and contribution 30 - 60 % (depending on implementation)
- Exam 40 - 70 % (depending on implementation)
- All parts need to be passed

Level 1-2 (passed)

Student:

- Recognizes the most common integrated systems in companies
- Understands the company main functions
- Understands the role of ICT in the company
- Understands the coupling between Business and ICT
- Is familiar with branch terminology

Level 3-4 (good)

Student in addition:

- Realizes the importance of data in the business environment
- Understands the main purpose of integrated systems
- Recognizes the role of ICT in enablement and development of the business
- Can act responsibly in a team
- Understands the role of ICT and ICT management
- Understands the connection between ICT system development and business development

Level 5 (excellent)

Student in addition:

- Can describe data as a business enabler
- Understands the connection between the most common integrated systems and business steering and development
- Understands the coupling between ICT management and different IT frameworks

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers are used for course/module development.

Accreditation of prior learning (APL)

To get a passing (P) grade and exemption from the course, student must display and demonstrate the competence by certificates from earlier studies or work experience covering the course

objectives and contents. The student is to enroll for the course thru normal enrolment principals and then contact the teacher to start the APL-procedure.

Teacher(s) responsible

Immo Hahtola

Ralf Rehn

Programming (Java)

Code: SWD4TF002

Scope: 5 ECTS (135 h)

Timing: 2nd semester

Language: English

Curriculum: Business Information Technology

Course level: Profile-specific studies (Software Engineering)

Course type: Elective

Starting level and linkage with other courses

The student has completed the course Orientation to Software Engineering (SWD1TF001) with exam grade 3 or higher, or can demonstrate equivalent skills and knowledge in the basics of programming.

Learning objectives and assessment

Upon successful completion of the course, the student should be able to

- explain the basic concepts and terminology of the Java programming language, object-oriented programming, and Java web applications
- design and write simple Java programs in the object-oriented way
- access a database with JDBC to retrieve and save data programmatically
- write simple Java web applications with servlets, JSP, and JSTL
- use Eclipse in writing and debugging Java code
- install and use a web server for developing and testing Java web applications.

Passed courses are assessed on a scale of 1 to 5.

Grade 1

The student

- shows passable activity and punctuality on the course
- has passable understanding of the course contents, core concepts and terminology
- has passable knowledge and skills in writing simple Java programs in the object-oriented way
- has passable knowledge and skills in writing simple Java web applications
- needs often assistance in problem situations, and in the interpretation of the course material.

Grade 3

The student

- shows good activity and punctuality on the course
- has good understanding of the course contents, core concepts and terminology
- has good knowledge and skills in writing simple Java programs in the object-oriented way
- has good knowledge and skills in writing simple Java web applications

- uses the course materials and other sources in an effective way to support own learning
- needs sometimes assistance in problem situations.

Grade 5

The student

- shows excellent activity and punctuality on the course
- has excellent understanding of the course contents, core concepts and terminology
- has excellent knowledge and skills in writing simple Java programs in the object-oriented way
- has excellent knowledge and skills in writing simple Java web applications
- uses the course materials and independently found sources fluently to support own learning
- can independently examine and solve almost all problem situations
- shows that he/she can acquire more knowledge and skills independently and apply them creatively.

Recognising and validating prior learning (RPL)

Portfolio and exam. RPL should be applied for prior commencing the course.

Working life connections

Depending on the course implementation, there may be guest presentations from companies.

Internationality

Students from many nationalities work together on the course. The course materials, reference manuals and other public information sources are written in English. International standards are followed on the course.

Assessment

Weekly programming assignments, activity on the course, learning diary, and two exams

Learning methods

- a. Contact lessons, independent studies and assignments OR
- b. Independent studies and assignments

Course teacher

Kari Silpiö

Learning materials

- Recommended textbooks (any edition will do):
 - Lewis & Loftus: Java Software Solutions
 - Deitel & Deitel: Java. How to Program
- Course handouts
- Online Java documentation

- Various other online resources

Data Management and Databases

Code: SWD4TF003

Scope: 5 ECTS (135 h)

Timing: 2nd semester

Language: English

Curriculum: Business Information Technology

Course level: Profile-specific studies (Software Engineering)

Course type: Elective

Starting level and linkage with other courses

The student has completed the course Orientation to Software Engineering (SWD1TF001), or can demonstrate equivalent skills and knowledge. In addition, the course Orientation to ICT Infrastructures (ICT1TF010) is recommended to be completed before taking the Data Management and Databases course.

Learning objectives and assessment

Upon successful completion of this course, the student should be able to

- explain the basic concepts and terminology of data management and databases
- explain the principles, structure, and terminology of the relational database
- explain the DBMS services and their importance and value in software development
- explain what database transaction is and why it has a crucial role in reliable software systems
- explain the database design methodology
- use data-oriented ER diagrams and database diagrams written in UML
- create a small and simple database in SQL Server and MariaDB
- write intermediate-level SQL queries to retrieve and manipulate the database's data.

Passed courses are assessed on a scale of 1 to 5.

Grade 1

The student

- shows passable activity and punctuality on the course
- has passable understanding of the course contents, core concepts and terminology
- has passable knowledge and skills in writing database queries in SQL
- has passable knowledge and skills in using data-oriented diagrams
- has some difficulties in using the course materials to support own learning.

Grade 3

The student

- shows good activity and punctuality on the course
- has good understanding of the course contents, core concepts and terminology

- has good knowledge and skills in writing database queries in SQL
- has good knowledge and skills in using data-oriented diagrams
- has sufficient knowledge and skills in creating a small and simple database
- can use the course materials in an effective way to support own learning.

Grade 5

The student

- shows excellent activity and punctuality on the course
- has excellent understanding of the course contents, core concepts and terminology
- has excellent knowledge and skills in writing database queries in SQL
- has excellent knowledge and skills in using data-oriented diagrams
- has good knowledge and skills in creating a small and simple database
- uses the course materials and independently found sources fluently to support own learning.

Recognising and validating prior learning (RPL)

Portfolio and exam. RPL should be applied for prior commencing the course.

Working life connections

Depending on the course implementation, there may be guest presentations from companies.

Internationality

Students from many nationalities work together on the course. The course materials, reference manuals and other public information sources are written in English. International standards are followed on the course.

Assessment

Weekly hands-on lab assignments, a comprehensive group work case assignment, activity in the group, learning diary, and two written exams

Learning methods

- a. Contact lessons, assignments, case assignment, and independent studies OR
- b. Self-study, assignments, case assignment, and written examinations OR
- c. On-the-job learning, portfolio, and written examination.

The assessment of one's own learning 1 h

Course teacher

Kari Silpiö

Learning materials

Course handouts

SQL Zoo online SQL tutorial and W3Schools online SQL tutorial

Connolly, T. & Begg, C. Database Systems. Addison Wesley Longman, London. 3rd edition or later

Server Programming

Code: SWD4TF021

Extent: 5cr (135h)

Timing: 3rd semester

Language: English

Level: Professional studies

Type: Elective (Part of the Software Developer's path)

Starting level and linkage with other courses

Student has completed the BIT 2015 curriculum second semester studies in programming and databases. (Or has the corresponding object-oriented programming, web programming and database skills.)

Learning outcomes

Upon completion of the course, the student is able to

- understand and describe the role of the back-end development in modern web applications
- act like a professional back-end developer. Able to analyze problems, seek for needed information, apply a solution, verify it
- able to discuss and take into use more back-end technologies

Course contents

- Introduction to server side programming
- Introduction to security issues in server side programming
- Application programming interfaces (REST-API, JSON)
- Database programming on server side
- Software frameworks for server side
- Performance of back-end software
- Continuous integration (CI) especially version management, build automation tools, deployment tools

Cooperation with the business community

Possible guest lecturers from different companies.

International dimension

Only international learning materials used. Possible guest lecturers from international companies.

Teaching and learning methods

- Teaching 64 h
- Workshops 32 h
- Independent study 38 h

- The assessment of one's own learning 1 h

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is observed on the course according to separate instructions.

Teacher(s) responsible

- Juhani Välimäki,
- Juha Hinkula

Course materials

Appropriate resources that professional back-end developers use daily.

To be listed here as the contents will be clarified:

Assessment criteria

The course is evaluated on scale 1 to 5. The assessment criteria are presented below.

Components	1 (40%)	3 (70%)	5 (90%)
Knowledge	The student can identify, list and combine the main theoretical concepts.	The student can describe the relevant concepts and apply them to new contexts.	The student uses and combines different theories to present own models. Student is aware of other views of the knowledge. His/her use of theory and specific terminology is very accurate. S/he uses findings to compare different brand theories and viewpoints.
Skills	With great difficulty and under strict supervision, the student partly or poorly uses relevant tools and technology at beginner's level.	The student can develop independently a small server side program	The student can collect, analyze and use relevant technologies to create server side program
Competence	With great difficulty and under strict supervision, the student can cooperate with the actual back-end developers, e.g. in a testing team. S/he can poorly apply problem identification, analysis	The student can cooperate with the actual back-end developers, e.g. in an assisting role. S/he can apply problem identification, analysis and solving to server programming projects.	The student can work very professionally with a client company in a team. S/he can fully apply problem identification, analysis and solving to server programming development.

	and solving to back-end projects.		
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Assessment components and their respective weights

- Assignments or projects 50%
- Examination 50%

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

Front End Development

Code: SWD4TF022

Extent: 5cr (135h)

Timing: 3rd semester

Language: English

Curriculum: DIGIE

Level: Optional Profile-Specific Studies (Software Development)

Type: elective

Starting level and linkage with other courses

Student has completed the second semester studies in programming and databases. It's recommended (but not required) that the student also takes the **Server Programming** (SWD4TF021) course parallel to this course.

Learning outcomes

Upon completion of the course, the student is able to

- understand and describe the role of front-end development in modern web applications
- act like a professional front-end developer. Able to analyze problems, seek for needed information, apply a solution, verify it
- see the alternative ways for creating a front-end
- able to discuss and take into use more front-end technologies

Course contents

- The set of needed tools and their relevance
- Mastering HTML, CSS, JavaScript, browser developer tools, e.g. JavaScript debugger and JavaScript console
- Verification and error-tracking
- Document Object Model, Browser Object Model and their relationship and linkages with JS,
- The JS "environment". That is JavaScript objects and functions loaded into browser memory. JavaScript libraries. (Using jQuery as an example)
- Understanding how much can be done at the front-end without back-end. Even a Single-Page Application (SPA)
- Request-Response model. Understanding http GET and POST requests. Understanding how the browser communicates with the web server.
- Understanding how to connect to the back-end. Understanding how to specify and use back-end services in the front-end.
- Creating different kind of front-ends that use the given ready-made back-end services

- AJAX request-response model.
- JSON as AJAX response format
- (XML as AJAX response format)
- jQuery, Bootstrap
- Responsive web pages with Media Queries.
- "CSS3". E.g. using variables in style rules
- "HTML5": E.g. Drag-and-drop, local store, geolocation, canvas and charts
- A small selection of JS front-end frameworks (Angular, ReactJS?) walked through
- Understanding of which areas student doesn't know at the end.

Cooperation with the business community

Possible guest lecturers from different companies.

International dimension

Only international learning materials used. Possible guest lecturers from international companies.

Teaching and learning methods

- Tutorials 15 h
- Workshops 45 h
- Independent study and teamwork 74 h
- The assessment of one's own learning 1 h

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is done on the course through submitting and presenting a professional, well-documented, demonstrated and narrated web site that uses the above mentioned technologies.

Teacher(s) responsible

- Juhani Välimäki,
- Juha Hinkula (Not Spring 2017)

Course materials

Appropriate resources that professional front-end developers use daily.

To be listed here as the contents will be clarified:

- w3.org, EcmaScript standard, w3schools, codecademy.com, MVA, jQuery.com etc. to be announced and updated on the course site

Assessment criteria

The course is evaluated on a scale from 1 to 5. The assessment criteria is presented below

Components	1	3	5
Knowledge	The student can identify, list and combine the main theoretical concepts.	The student can describe the relevant concepts and apply them to new contexts. The student can link the key theoretical concepts to the practical task to build a browser or mobile user interface for a web application.	The student uses and combines different theories to present own models. Student is aware of other views of the knowledge. His/her use of theory and specific terminology is very accurate. S/he uses findings to compare different brand theories and viewpoints.
Skills	With great difficulty and under frequent supervision, the student is able to partly / poorly use the relevant tools and technology at a beginner's level.	The student can collect, analyze and use relevant technologies to create browser and mobile user interfaces for a client company at a prototype level.	The student can collect, analyze and use relevant technologies to create browser and mobile user interfaces for a client company at a near professional level.
Competence	With great difficulty and under strict supervision, the student can cooperate with the actual front-end developers, e.g. in a testing team. S/he can poorly apply problem identification, analysis and solving to web app user interface projects.	The student can cooperate with the actual front-end developers, e.g. in an assisting role. S/he can apply problem identification, analysis and solving to web app user interface projects.	The student can work very professionally with a client company in a team. S/he can fully apply problem identification, analysis and solving to web application user interface development.

Assessment components and their respective weights

- Active learning approach 15-25 % (seeks information, shows self-initiative, asks for help timely)
- Assignments or projects 25 %
- Examination 60 %
- The teacher may give small bonus (10 %) for above average contribution and activity,
- For students completing the course on their own: case 40 %, exam 60 %

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

Mobile Programming

Code: SWD4TF020

Scope: 5cr (135h)

Timing: 4th semester

Language: English

Course level: Professional studies

Course type: Elective

Starting Level and linkage with other courses

Student has completed the second semester studies in programming and databases.

Learning objectives

Upon successful completion of this course, the student should be able to

- understands the mobile development characteristics
- develop professional mobile applications on 1-2 platforms
- further develop his/her development skills.
- knows the limitations of his or her skills

Course content

Topics to be covered in the course include the following:

- Mobile development characteristics
- Android platform basics
- Selected mobile development technologies

Working life connections

Guest lectures are organized if feasible.

Internationality

All course material is provided in English. Possible guest lecturers from international companies.

Teaching and learning methods

- Teaching 48 h
- Independent study 87 h
- The assessment of one's own learning 1 h
- Studying includes lectures and exercises

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is observed on the course according to separate instructions.

Teacher(s) responsible

- Juha Hinkula

Course material

- The course web pages
- Online material

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1 (40%)

- Knows the basic concepts of mobile development.
- Shows passable activity in class and individual studying
- Has skills in creating an application using the technologies taught on the course

Grade 3 (70%)

- Knows the mobile development concepts well
- Shows good activity in class and individual studying
- Has good knowledge and skills in creating an application using the technologies taught on the course
- Can use the course materials in an effective way to support own learning

Grade 5 (90%)

- Knows the mobile development concepts in depth.
- Has excellent knowledge and skills in creating an application using the skills technologies on the course Able to develop security practices.
- Can fluently use the course materials and other sources to support own learning
- Can independently solve problems

Assessment components and their respective weights

- Project 60%
- Assignments and Activity 40%

Software Development Technologies

Code: SWD4TF023

Scope: 5 ECTS (135 h)

Timing: 4. semester (same time with the “Software Project” course)

Language: English

Curriculum: DIGIE

Course level: Professional Studies

Course type: Elective profile-specific studies

Starting level and linkage with other courses

Pre-requisite courses:

Data Management and Databases SWD4TF003

Server Programming SWD4TF021

Front End Development SWD4TF022

Note: This course is meant only for software development oriented students.

Learning goals

Able to use and further learn software development, version management and project management tools and techniques needed on the Software Project course.

Contents

Software development, Database, Version management and team work management tools and technologies. Contents change for each semester depending on the need.

Learning objectives and assessment

Accepted grades 1-5

- Grade 1: Knows about the tools
- Grade 2: Can use the tools with help
- Grade 3: Can use the tools independently without help
- Grade 4: Able to use the tools professionally, teach them to others, and also learn more about them independently
- Grade 5: Also understands the broader meaning of the tools and can evaluate their strengths and weaknesses and compare tools for a purpose

Recognizing and validating prior learning (RPL)

Student will devise a teaching plan and teaching material about a technology or method that is topical. The lecture and its material will be assessed. Possible exam attended.

Working life connections

The tools on this course will be based on the project commissioned by a customer company or organization.

Internationality

Teams consist of both Finnish and multinational students. All used materials, technologies and methods are international.

Learning methods

This course can be completed in following three ways:

- a. Active participation in the labs with mandatory presence in the project work lab room.
- b. Recognizing and validating prior learning (RPL)

Course teachers

Juhani Välimäki

Juha Hinkula (Not this semester)

Jukka Juslin (Finnish programs)

Software Project

Code: SWD4TF024

Scope: 10 ECTS

Timing: 4th Semester

Language: English

Curriculum: DIGIE

Course level: Optional profile-specific studies (Software Development)

Course type: Elective (part of the Software Developer's study profile)

Pre-requisites

Student has good object-oriented programming, web programming and database skills. Student is ready for independent teamwork and information seeking.

Data Management and Databases (SWD4TF003)

Server Programming (SWD4TF021)

Front End Development (SWD4TF022)

Learning outcomes

Upon successful completion of the course, the student is able to solve customer problems through his/her software development skills. The student understands and is able to define customer needs and requirements, and s/he is able to utilize proper software solutions. The student is able to develop independently his/her competence in learning and discussing new technologies. The student is able to assess and select the proper technologies and approaches to solving the problem. The student is capable of taking responsibility for implementing designated tasks. The student is able to share the developed competence with other team members. As a member of a team, the student is responsible for implementing production-level software solutions for customer needs and requirements.

Course Contents

The course operates like a genuine software company, from whom a client orders software solutions for real needs. The students

1. Study customer needs
2. Define and plan the solution
3. Determine with the customer the selected technologies that are considered an appropriate solution to the problem
4. Develop the working software solution at a near production level
5. Evaluate the results and plan the future improvements

Cooperation with the business community

Case topics from companies, at least on latter implementations of the course.

International dimension

Only international learning materials used. All implementations have students from several continents. Possible guest lecturers from international companies.

Teaching and learning methods

- Independent and supported project work 265 h
- Final essay about student's own learning and contributions to the team work (min 1 full page) 3h
- The assessment of one's own learning 1 h

Accreditation of prior learning (APL)

Annotate, illustrate and pack some of your professional software projects. Demonstrate and narrate it to the teacher. Student is responsible for the quality of the project. The chance to present it is one time opportunity after which grade or rejection will be final without chance to improve.

Course teachers

- Juhani Välimäki
- Juha Hinkula (Not this semester)
- Jukka Juslin (Finnish curriculum)
- Ohto Rainio (Finnish curriculum)

Learning materials

Appropriate resources depending on the technology needed per each case.

Assessment criteria

Course evaluation is based on group work, the functionality of the final outcomes, and an individual task essay that evaluates individual and group performance.

The course is evaluated on a scale from 1 to 5. The assessment criteria are presented below.

Components	1	3	5
Knowledge	The student can identify, list and combine the main theoretical concepts related	The student can describe the relevant concepts and apply them to new contexts.	The student uses and combines different theories to present own models. Student is aware of other views of the knowledge. His/her

	to the course contents.		use of theory and specific terminology is very accurate. S/he uses findings to compare different theories and viewpoints.
Skills	With great difficulty and under strict supervision, the student partly or poorly works as a team member in software projects using relevant tools and technology at beginner's level.	The student can work as a team member in software projects developing a working system	The student can collect, analyze and use relevant technologies to create systems
Competence	<p>With great difficulty and under strict supervision, the student can cooperate with the actual developers, e.g. in a testing team. S/he can poorly apply problem identification, analysis and solving to software projects.</p> <p>The student participates insufficiently to the group work. In the final essay, student superficially defines his/her roles in the project. The group's outcomes do</p>	<p>The student can cooperate with the actual developers, e.g. in an assisting role. S/he can apply problem identification, analysis and solving to software projects.</p> <p>The student participates actively in the group work. S/he helps the implementation, but does not take a big responsibility for any topic in the subject area. In the final essay, the student defines his/her roles sufficiently, but has not expressed in-depth comparison or shows her/his analyzing capabilities. The group's outcomes serve the purpose partially, and</p>	<p>The student can work very professionally with a client company in a team. S/he can fully apply problem identification, analysis and solving to software development.</p> <p>The student participates actively in the group work. S/he takes the lead in one or more area in the project. S/he can recommend methods and technologies for group use. In the final essay, the student analyzes his/her own and group performances thoroughly and analytically. S/he is able to analyze what has been done well and where it could have been done</p>

	not meet the initial purpose, and cooperation with the customer is weak.	cooperation with the customer is moderate.	better. The group's outcomes serve the purpose very well, and cooperation with the customer was excellent.
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Assessment components and their respective weights

- Activity, Responsibility, and attitude 20-30% (including coming to work in time, focus, contribution to team efficiency). Outstanding contribution might lead into a 10% extra bonus.
- Assignments or projects, and the activity and attitude shown during making them 40%
- Examination 40% (possibly, if needed for checking all team members' knowledge. Otherwise 0% and Assignments or projects 80%)

The assessment of one's own learning (Compulsory task)

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

Multidisciplinary Software Project

Code: PRO4TF024

Scope: 15 ECTS (405 h)

Timing: 5. semester

Language: English

Curriculum: DIGIE

Course level: Professional Studies

Course type: Elective Profile Course

Starting level and linkage with other courses

Before attending this course, students must have completed the courses Server Programming, Data Management and Databases, and Software Project. Or student has obtained corresponding skills.

Front End Development and Mobile Development course skills are also needed.

Note: This course is meant only for software development oriented students. Furthermore, students cannot take this course and other big 5. semester project course (Digital Service, Business, Infra) at the same semester as the course schedules for all these are put on the same times on purpose, and attendance is mandatory.

Learning goals

Student is able to use most of the software engineering skills needed in solving the real customer problem. She/he is able to understand and document customer's needs and to propose appropriate software solutions. Student is able to independently acquire unknown technology knowledge and skills. She/he learns to evaluate and choose between technologies and methods. She/he is able to take personal responsibility over a certain part of the commonly created solution. Student is able to share acquired knowledge to other members of the team or course.

Student can, as a member of the team, implement a valid and ready-to-use solution to the customer's problem.

Contents

This course will be implemented as a project, with project management methods. Student will sign a project contract with Haaga-Helia at the start of the course. Students will be assigned to certain teams based on prior knowledge, available projects, required and mastered language (Finnish and/or English) and needs of each project.

Students will implement and demonstrate ready-to-use solutions to the customer. Students will learn the needs of the customer, specify and plan the solution and agree with the customer upon the used technologies, that are the best-suited ones for this problem, considering also the team's initial skill level and learning goals.

1. Project assigned by the commissioner (customer company or organization)

2. Project work management, change management and contract principles
3. Project goal related development tools, environment and documentation practices provided by the commissioner.
4. Software development process models and methods
5. Interaction, tutoring and presentation skills

Learning objectives and assessment

Accepted grades 1-5

Assessment will be based on student's skills and efforts in the above-mentioned course contents. The emphasis of the grade will be the following:

- Researching new technology and tutoring others 15%
 - Student will take responsibility of studying one or more technologies needed in the project and teaching it/them to the others e.g. in a workshop.
- Project management and project final essay 35 %
 - Student has many role- or competence-based tasks and responsibilities in the project. Students devise and maintain appropriate project management and progress monitoring documentation and take care of project trackability and traceability both from internal and external controls' points-of-view. Student reflects his/her as well as the team's actions in the final essay.
- Appropriate documentation of the results and the technical solution that fulfills customer's needs 50 %
 - Often most of the costs of an information system come from maintenance and changes. Also, the future developers of the system are different from the original developers. Thus, we put a big emphasis on the quality of the documentation, source etc. code, and automated testing and continuous integration – the professional development pipeline.
 - Quality of the documentation does not mean lengthy or all-covering documentation, but that needed and most valuable information is available and only that. Also, high-quality code is often self-explanatory.

Examples of results and tasks that will be evaluated per project team

- Software requirements: defined, audited, and accepted by the customer
- Technical requirements: defined, well-argued, and accepted by the customer
- Source etc. code: in common version control system
- Testing: testing planned, plan accepted by the customer, corresponding tests run, and test report published
- Project and work management: appropriate project management (external control) and agreed practice (internal control) documentation, following the agreed timelines, and sound communication.

The Commissioner gives evaluation of each of these parts or results

Examples of results and tasks that will be evaluated per each student

- Integrity and trustworthiness. Taking responsibility for oneself and of the team.
- Research and tutoring: The technology that was the responsibility of the student has been taken into use in the team appropriately. Technology was taught to others based on the need. Student has been able to reflect his/her own responsibility area.

- Development tasks: The student's completion of the responsibilities in planned timeframe (implementation days, sprint, ...) and the quality awareness and assurance (e.g. definition of done).
- Project final essay.

Grade-wise criteria

Discussed in the beginning of the course. Each grade adds more requirements in both quantity and quality.

Recognizing and validating prior learning (RPL)

Student will devise a teaching plan and teaching material about a technology or method that is topical. Student will give an expert lecture about a large software project that he/she has actively participated, describing its development method, practices, principles and technical solutions. The lecture and its material will be assessed.

Working life connections

The software projects on this course will be commissioned by a customer company or organization.

Internationality

Teams consist of both Finnish and multinational students. All used materials, technologies and methods are international.

Learning methods

This course can be completed in following three ways:

- a. Active participation in the project with mandatory presence in the project work lab room.
- b. Participating large software project in student's employer's organization (s.c. Educationalisation)
- c. Recognizing and validating prior learning (RPL)

Course teachers

Juhani Välimäki

Juha Hinkula

Teemu Havulinna

Jukka Juslin (mainly Finnish teams)

Ohto Rainio (mainly Finnish teams)

Database Developer

- Code: SWD8TF040
- Scope: 5 ECTS (135 h)
- Timing: 5th semester
- Language: English
- Curriculum: Business Information Technology (DIGIE)
- Course level: Professional studies
- Course type: Elective (Software Development profile)

Starting level and linkage with other courses

The student has completed the course Data Management and Databases (SWD4TF003) or equivalent.

Contents

The course focuses on physical database design and implementation in the relational database environment. The main themes on the course are database integrity, database performance, database security, and database recoverability. The course includes hands-on work on the following:

- data integrity enforcement
- database performance, database indexes
- concurrency control and transaction management in the multiuser environment
- transaction logging and database recovery, backup and restore
- database security.

Learning objectives and assessment

Upon successful completion of this course, the student should be able to

- explain the basic concepts and terminology related to physical database design and implementation
- use the basic database administration tools to create and manage a database in the target environment
- apply declarative and procedural integrity enforcement in the database implementation
- explain basic database performance problems and ways to improve database performance
- explain the basic concurrency mechanisms and concurrency conflicts
- use SQL transactions efficiently to ensure database performance and consistency
- explain transaction logging and database recovery
- perform database backup and restore operations.

Passed courses are assessed on a scale of 1 to 5.

Grade 1

The student

- shows passable activity in class and individual studying

- has passable understanding of the concepts and terminology discussed in the course
- has passable understanding of the basic ways to improve database performance
- has passable understanding of the main problems in concurrent database access
- often needs some assistance in solving basic problems
- has some difficulties in using the course materials to support own learning.

Grade 3

The student

- shows good activity in class and individual studying
- has good understanding of the concepts and terminology discussed in the course
- has good understanding of the basic ways to improve database performance
- has good understanding of the main problems in concurrent database access
- sometimes needs assistance in solving basic problems
- can use the course materials in an effective way to support own learning
- can find some more information from other sources.

Grade 5

The student

- shows excellent activity in class and individual studying
- has excellent understanding of the concepts and terminology discussed in the course
- has excellent understanding of the basic ways to improve database performance
- has excellent understanding of the main problems in concurrent database access
- can solve problems independently
- can fluently use the course materials and other sources to support own learning
- can independently find more information from other sources
- can independently learn more details of course topics.

Recognising and validating prior learning (RPL)

Portfolio and written exam

Working life connections

There may be guest presentations from companies when applicable.

Internationality

Students from many nationalities work together on the course. The course materials, reference manuals and other public information sources are written in English. International standards are followed on the course.

Assessment

Weekly hands-on assignments, activity in the group, learning diary, and two written exams

Learning methods

a. Contact lessons, course assignments, independent studies, and written examinations OR

b. Self-study, course assignments, and written examinations

The assessment of one's own learning 1 h

Course teacher

Kari Silpiö

Learning materials

- Course pages and handouts
- Connolly, T. & Begg, C. Database Systems. A Practical Approach to Design, Implementation, and Management. 3rd edition or later. Addison-Wesley.
- For additional reading: Dewson, R. 2008. Beginning SQL Server 2008 for Developers: From Novice to Professional. New York: Springer-Verlag New York Inc. (SQL Server version 2008 edition or later)

User Experience

Code: DIG4TF002

Scope: 5 ECTS (135h)

Timing: 2nd semester, 1st period

Language: English

Course level: Profile studies

Course type: Elective

Learning objectives

Upon successful completion of this course, the student should be able to understand why and how to create better services by bringing the voice of the customer as part of service development

- He/she understands that user experience consists of chain of actions that generate a meaningful and valuable entity from the user's perspective. This chain can contain different kinds of service moments, contact points and interactions with service providers, user interfaces and other service users
- He/she can examine and develop the experience as a whole as well as its parts
- He/she can use different methods for mapping the user experience and apply the methods purposefully
- He/she understands the importance of making the stakeholders participate in the design process and apply different working ways and methods of participatory design
- He/she can transform the problems arising from the user's experience or other relevant moments into meaningful service solutions and describe the outcome of development in a manner that is communicable to different stakeholders
- He/she can validate the plan created in the process and modify it according to the validation results

Content

Topics to be covered in the course include the following:

Methods for developing user experience:

- for mapping the user experience
- for analysing the user information
- for utilizing the information in design
- for testing and evaluating the designs

Starting Level and linkage with other courses

The student must have passed the course Introduction to Digital Services.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

Knows partially the concepts related to user experience and understands the meaning of user experience in service development. Knows the basic principles of designing user experience.

Grade 3

Knows the basic concepts related to user experience, can map the user experience and utilize the findings in designing user experience.

Grade 5

Masters the entity of user experience, can map the entire user experience and skilfully applies the knowledge gained in designing user experiences.

Working life connections

Real life business cases may be used on the course.

Internationality

International materials and examples may be used on the course

Learning methods

This course may be completed by either:

- a. participating in contact lessons and completing the tasks given as either daytime, evening, or intensive implementations OR
- b. by participating in a working life project or other project OR
- c. by taking an exam and/or turning in the learning assignments OR
- d. by showing the requisite skills as acquired at work OR
- e. by taking part in a network-based course.

A self-assessment will be required for completion of the course.

Responsible teacher

Taru Parikka
Teemu Ruohonen
Amir Dirin
Heikki Hietala

Prototyping of Digital Services

- Code: DIG4TF003
- Scope: 5 cu (135 h)
- Timing: 2. semester
- Language: English
- Course level: profile studies
- Course type: optional

Learning objectives

Upon successful completion of this course, the student should be able to apply brainstorming techniques, is able to design a digital service visual user interface and is able to take advantage of tools for prototyping.

Content

Topics to be covered in the course include the following:

- Iterative design
- User Interface visuals
- Tools for prototyping
- Implementation of the prototype

Starting Level and linkage with other courses

Recommended Innovation and Project Work and User Experience courses studied before.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

The student understands the importance of the visual image to the digital service, as well as to understand the importance of building of prototypes of tools and are able to implement their primitive prototype.

Grade 3

The student is able to design the visual identity of digital services and are able to implement a prototype utilizing tools for prototyping.

Grade 5

The student is able to plan an appropriate visual image of digital services and are able to implement a high-quality prototype effectively utilizing tools for prototyping.

Working life connections

The students have the opportunity to implement small projects.

Internationality

The international material used in the course (both the source material and software).

Learning methods

This course learning outcomes can be achieved in the following ways:

- a. Lectures and independent work.
- b. E-learning and independent work.
- c. Workplace-based learning (suom. AHOT).

The course also includes a mandatory assessment of their own learning.

Responsible teacher

Ari Alamäki

Amir Dirin

Niina Kinnunen

Outi Valkki

Digital Service Design

Code: DIG4TF021

Scope: 5 ECTS (135h)

Timing: 3rd Semester (2. period)

Language: English

Course level: Profile studies

Course type: Elective

Learning objectives

Upon successful completion of this course, the student should be able to understand how to create better services by utilizing existing technologies and API's along with graphical design theories and principles

- He/she learns how to search and use existing technologies to implement a digital service.
- He/she can use the existing graphical design theories to implement a digital service.
- He/she can search and use the latest technologies to implement the digital service.

Content

Topics to be covered in the course include the following:

- Graphical design principles
- Existing technologies and APIs to develop a digital service
- The latest development technologies for testing and evaluating the designs
- Interface technologies

Starting Level and linkage with other courses

The student must have passed the course Introduction to Digital Services and introduction to software engineering

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

Knows partially the digital service development components

Grade 3

Knows the basic design principles and is familiar with development technologies. The student is capable independently search for existing component to implement digital service. Additionally, the student is able to merge and utilize different technologies to develop digital service. The student has competence on graphical design principle.

Grade 5

Student can elaborate different technologies and design principles applicability. Student can recommend the components and technologies based on the context of use of the digital service. Student can develop a digital service and integrate the developed service with open data. Student capable of analysing and recommending appropriate design principle based on the context of use of the digital service.

Working life connections

Real life business cases may be used on the course.

Internationality

International materials and examples may be used on the course

Learning methods

This course may be completed by either:

- a. participating in contact lessons and completing the tasks given as either daytime, evening, or intensive implementations OR
- b. by participating in a working life project or another project OR
- c. by taking an exam and/or turning in the learning assignments OR
- d. by showing the requisite skills as acquired at work OR e. by taking part in a network-based course.

A self-assessment will be required for completion of the course.

Responsible teacher

Amir Dirin

Digital Service Project

Code: PRO4TF030

Scope: 10 ECTS (270 h)

Timing: Fifth Semester

Language: English

Course level: Profile studies

Course type: Elective

Learning objectives

Upon successful completion of this course, the student understands the digital service concept design, validation, and customer value and marketing processes through a real customer project.

Content

Student needs to utilize the following process and approaches

- UCD to come up with the proper concept
- Semi-functional prototype with proved iterative design and development phases
- Evaluation of end-user, customer and/or possible other stakeholder value and experience
- Marketing material to justify the efficiency productivity of the proposed concept

Starting level and linkage with other courses

The student must have passed the course Orientation to Digital Services, Introduction to Software Engineering and have successfully passed one of the following courses Digital Service Design, User Centred design, or usability engineering, and digital service design.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

Come up with a new concept but have not followed any digital service design and development methodology. However, semi-functional prototype is validated and shared with customer.

Grade 3

Come up with a new concept and have followed digital service design and development methodology such as User Centered Design (UCD) poorly such as failed to conduct user studies, or data analysis has not done properly. However, semi-functional prototype is validated and shared with customer. Customer specifically shows satisfaction with the outcome

Grade 5

Student demonstrate he/she is master with the process and come up with a new and innovative concept. Student have followed digital service design and development methodology such as User

Centered Design (UCD). A semi-functional prototype designed, implemented, and validated. Customer specifically shows high satisfaction with the outcome

Working life connections

Real life business cases may be used on this course.

Internationality

International materials and examples may be used on the course

Learning methods

This course may be completed by either: Working while you are working in a company or a project from a company and work as team at the school..

Responsible teacher

Amir Dirin
Ari Alamäki

Data Security

Code: ICT4TF022

Scope: 5cr (135h)

Timing: 3rd semester

Language: English

Course level: Professional studies

Course type: Elective

Starting Level and linkage with other courses

Student has completed the course Orientation to ICT Infrastructures, ICT1TF010 and Server Technologies, ICT4TF021

Learning objectives

Upon successful completion of this course, the student should be able to

- understand the needs of enterprise information security and the importance of risk management
- be familiar with the laws and regulations related to information security
- identify company's security risks
- know the company's security policies
- protect against security risks

Course content

Topics to be covered in the course include the following:

- Security and Risk Management
- Protection of information assets
- Security Engineering
- Communications and Network Security
- Identity and Access Management
- Security Assessment and Testing
- Security Operations
- Security in the Software Development
- OWASP

Working life connections

Guest lectures are organized if feasible.

Internationality

All course material is provided in English. Possible guest lecturers from international companies.

Teaching and learning methods

- Teaching 48 h
- Independent study 87 h
- The assessment of one's own learning 1 h

- Studying includes lectures and exercises

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is observed on the course according to separate instructions.

Teacher(s) responsible

Olavi Korhonen

Course material

- The course web pages
- Online material
- Mark Ciampa: CompTIA Security+ SY0-401 in Depth, Cengage Learning PTR, 2014. (Safari Books Online)
- Adam Gordon: Official (ISC)2 Guide to the CISSP CBK, CRC Press, 2015. (Safari Books Online)

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1 (40%)

- Knows the basic concepts of network security.
- Understands the importance of information security to the corporation.
- Knows the basics of information security practices.

- Manages the basics of using information security tools.

Grade 3 (70%)

- Knows the information security concepts well
- Able to perceive how the various information security areas are related to the company's operations.
- Manages security practices well
- Able to use information security tools independently

Grade 5 (90%)

- Knows the information security concepts in depth.
- Able to define and analyze the security requirements resulting from the activities of the company.
- Able to develop security practices.
- Knows how to use information security tools excellently.

Assessment components and their respective weights

- Assignments or projects 50%
- Examination 50%

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

Cloud Service Technologies

Code: ICT4TF024

Scope: 5cr (135h)

Timing: 4th semester

Language: English

Course level: Profile studies

Course type: Elective

Starting Level and linkage with other courses

Student has completed the course Orientation to ICT Infrastructures and Server Technologies

Learning objectives

Upon successful completion of this course, the student should be able to

- understand the cloud service implementation technologies and principles
- knows the services contract practices
- evaluate and choose the company's cloud service solutions
- knows how to use and manage Cloud Services

Course content

Topic areas covering the course project work:

- Cloud Services Technologies, IaaS, PaaS, SaaS
- Implementation architectures and technologies
- Service offering and terms of use
- Server virtualization and application virtualization
- Server Technologies and storage technologies
- Deployment and Management of Cloud Services

Working life connections

Guest lectures are organized if feasible.

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is observed on the course according to separate instructions.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1 (40%)

- Is able to perceive the Cloud Technologies key elements of services of the use and management in the point of view.
- Is familiar with the concepts of Cloud Services.

Grade 3 (70%)

- Knows the service concepts well
- Is familiar with service agreements (SLA)
- Knows the use of technology and management requirements.

Grade 5 (90%)

- Knows the service concepts and service technologies very well.
- Knows very well how to deploy, use and manage Cloud Service Technologies.

Internationality

All course material is provided in English. Possible guest lecturers from international companies.

Teaching and learning methods

- Project work and lectures, OR
- Working life project or any other project participation

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

Course material

- The course web pages
- Online material

Teacher(s) responsible

Harri Ahola
Olavi Korhonen

Server Technologies

Code: ICT4TF021

Scope: 5cr (135h)

Timing: 2nd semester

Language: English

Course level: Professional studies

Course type: Elective

Starting Level and linkage with other course

Student has completed the Orientation to ICT Infrastructures ICT1TF010

Learning objectives

Upon successful completion of this course, the student should be able to

- install the Linux/Windows Server operating system, and specify the server
- deploy a variety of server roles and features
- understand network protocols functions
- understand server platforms requirements and their suitability for different services
- deploy the most typical servers and knows the basics of the Windows / Linux server environment
- install and maintain appropriate programming platform

Course Content

- Windows / Linux server architectures
- Data networks main protocols
- Server environment installation and management
- Directory Services
- Network services and their function
- System services and service management
- Installation and maintenance of web-server
- LAMP / MEAN
- Maintenance and maintenance tools.

Working life connections

Guest lectures are organized if feasible.

Internationality

All course material is provided in English. Possible guest lecturers from international companies.

Teaching and learning methods

- Teaching 48 h
- Independent study 87 h
- The assessment of one's own learning 1 h

Accreditation of prior learning (APL)

Accreditation of prior learning (APL) is observed on the course according to separate instructions.

Teacher(s) responsible

Olavi Korhonen

Course material

- the course web pages
- online material

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

- Student shows sufficient activity in studying
- Can explain the issues discussed in the course
- Can use the course basic content. Needs often assistance in problem situations, and in the interpretation of the course material

Grade 3

- Student shows good activity in studying
- Can explain well the issues discussed in the course
- Can use the course content in a versatile way
- Needs sometimes assistance in problem situations, and in the interpretation of the course material

Grade 5

- Student shows excellent activity in studying
- Can explain excellently the issues discussed in the course
- Can apply the course content in a versatile way
- Can independently examine and solve problems and retrieve information from different sources

Assessment components and their respective weights

- Examination 30%
- Assignments OR Project work 70%

The assessment of one's own learning does not influence the course grade. The assignment is the same for all courses or modules and the answers will also be used for course or module development. The assignment is completed on an electronic form.

ICT Infrastructure Project

Code: PRO4TF023

Scope: 10 ECTS (270 h)

Timing: Fifth semester

Language: English

Course level: Profile studies

Course type: Elective

Learning objectives

Upon successful completion of this course, the student understands the ICT processes in regards to a real Business/ICT projects. The student is able to work in customer contact and solve challenges and problems in co-operation with various parties. The student is able to take responsibility in the project team in his/her own role.

Student is able to work, familiarize his/herself with the topic and apply his/her learning independently.

Content

The student will participate as a team member or project leader in a project in one of the following main focus areas:

- Computer networking and technologies
- Server platforms and operating systems
- Cloud Services
- Software Development technologies in Cloud Platforms
- Information Security
- Internet of Things

The type and purpose of the project is generally based on a commission and could be containing:

- Network services deployment / testing
- Operating system and server design / testing / implementation
- Management of information services
- Cloud Platform design, implementation and testing
- Software Development in Cloud Platforms, design, implementation and testing
- Implementation, management and development of information security
- Penetration testing

Starting Level and linkage with other courses

The student must have passed the courses Orientation to ICT Infrastructures and Server Technologies, and have successfully passed at least one of the following courses Data Security or Cloud Service Technologies or similar courses in other degree programs.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

The student has participated in the project but the individual contribution is minor and/or the quality of the deliverables is not or barely fulfilling the target.

Grade 3

The student has well participated in the project and the individual contribution is on a good level with timely and qualitative deliverables.

Grade 5

The student has been a key member of the project and the individual contribution has clearly had a great impact on the project outcome.

Working life connections

The target is to use real life business cases.

Internationality

International materials and examples may be used on the course

Learning methods

Team and individual work based on a project plan.

Self and peer assessment.

Project assessment.

Responsible teacher(s)

Olavi Korhonen

SAP ERP 1

Code: BIG4TF002

Extent: 5 credits

Semester: 3

Language: English

Level: Profile studies

Type: Compulsory / Optional

Learning outcome

- Upon successful completion of this course, the student...
- Understands core business processes and structure of ERP systems.
- Understands the projects related to ERP systems.
- Has hands-on skills for using SAP ERP system.

Content

The topics of this course are as follows:

Getting familiar with core business processes in SAP ERP system.

- Structure and modules of integrated systems
- Core business processes: Order-to-Cash, Procure-to-Pay, Plan-to-Produce
- ERP-projects / system implementation

Starting Level and linkage with other courses

Pre-requisite: Orientation to Business and ICT

Assessment

The evaluation scale for an accepted course contains grades 1 to 5.

Grade 5 (90%)

Student has excellent knowledge of SAP ERP basic concepts and business processes. Student has very good hands-on skills in use of SAP ERP system.

Grade 3 (70%)

Student has good knowledge of ERP basic concepts and business processes. Student has good hands-on skills in use of SAP ERP system.

Grade 1 (40%)

Student has sufficient knowledge of ERP basic concepts and business processes. Student has weak hands-on skills in use of SAP ERP system

Working life connections

2(2)

Possible guest lectures

Internationality

The software tools and languages used on the course are international. The language of the course material is English. Students from many nationalities work together.

Learning methods

a. lectures, system assignments, exam(s)

OR

b. Documented previous on-the-job learning and/or written examination

Responsible teacher

Jarmo Harmonen

Business Process Management

Code: BIG4TF003

Extent: 5 credits (135 h)

Semester: 2

Language: English

Level: Profile studies

Type: Compulsory / Optional

Learning outcome

Upon successful completion of this course, the student should be able to

- Explain and comprehend the role of business developments and BPM in the business environment
- Describe and discuss general principles of business process development
- Identify, present, analyze and design basic business processes
- Use standard modelling techniques to describe, present and discuss business processes

Content

The topics of this course are as follows:

- The basic principles in and objectives of BPM
- Process orientation
- Process modeling (BPMN) and process execution (BPMS)
- Process maturity and IT/process development methods
- Performance measures & KPIs
- Analysis, discussion and presentation of a case company's processes

Starting Level and linkage with other courses

No prerequisites.

Assessment

The evaluation scale for an accepted course contains grades 1 to 5.

Grade 1

The student

- Has participated in some course activities, but activity could clearly be better
- Has a passable understanding of the course contents, core concepts and terminology
- Has some knowledge and skills in modelling, describing and analyzing process
- Has some difficulties in using the course material to support own learning

Grade 3

The student

- Has shown reasonable activity on the course
- Has a good understanding of the course contents, core concepts and terminology
- Has basic skills in modelling, describing and analyzing process
- Can use the course material in an effective way to support own learning

Grade 5

The student

- Has shown excellent activity and punctuality on the course
- Masters in an excellent way the course contents, core concepts and terminology
- Has good skills in modelling, describing and analyzing process
- Uses the course materials and independently found sources fluently to support own learning.

Working life connections

Guest lecture

Analysis project – students in teams analyze and present a specific company's business processes

Internationality

The software tools and languages used on the course are international. The language of the course material is mainly in English. Students from many nationalities work together in the analysis project.

Learning methods

- a. Contact hours and assignments OR
- b. Participation in the analysis project or a similar project OR
- c. Self-study, assignments and/or written examination OR
- d. On-the-job learning, reporting and/or written examination OR
- e. E-learning
- f. A combination of a – e.

Responsible teacher

Ralf Rehn

SAP ERP 2

Code: BIG4TF021
Extent: 5 credits (135 h)
Semester: 4
Language: English
Level: Profile studies
Type: Optional

Learning outcome

Upon successful completion of this course, the student...

...Is able to work independently with advanced business processes in SAP ERP system.

...Have very good understanding of SAP ERP system within areas in course content.

Content

The topics of this course are as follows:

Advanced business processes and integration between following modules: Production Planning (PP), Financial Accounting (FI), Sales & Distribution (SD), Materials Management (MM)

Starting Level and linkage with other courses

pre-requisite: SAP ERP 1

Assessment

The evaluation scale for an accepted course contains grades 1 to 5.

Grade 5 (90%)

Student has excellent knowledge of SAP ERP system business processes within course content.
Student has very good understanding and hands-on-skills with SAP ERP system.

Grade 3 (70%)

Student has good knowledge of SAP ERP system business processes within course content.
Student has good understanding and hands-on-skills with SAP ERP system.

Grade 1 (50%)

Student has sufficient knowledge of SAP ERP system business processes within course content.
Student has general understanding and sufficient hands-on-skills with SAP ERP system.

Internationality

The software tools and languages used on the course are international. The language of the course material is English.

Learning methods

- a. case study assignments in SAP ERP system and written examination in the end of the course

OR

- b. Documented previous on-the-job learning from content of the course and written examination

Responsible teacher

Jarmo Harmonen

Managing CRM Processes

- Code: BIG4TF004
- Extent: 5 cr (135h)
- Timing: 4th or 5th semester
- Language: English
- Level: professional studies

Learning outcomes

Upon successful completion of the course, the student

- will learn what the term CRM means
- will understand the value of data for CRM use purposes
- can evaluate business requirements for CRM
- gain some experiences how to use CRM information system
- learn practical ways how to utilize CRM as a business tool

Course contents

In this course students will learn what is CRM and it means for business. The course has two parts, the business part and the analysis part. The main focus is based on learning CRM concept and connect it to business. The following topics below will be the key content of the course:

- CRM as a business concept
 - Introduction to marketing models: Mass marketing vs. Relationship marketing
 - Self study part based on literal research
- Web as a CRM and mass surveillance platform:
 - How customer data can be collected in the
 - How users on the web can protect their privacy (hands on guidance included)
- CRM and business requirements
 - Feasibility study
 - Hands on method how to integrate feasibility study requirements into CRM processes
 - Hands on exercises on cloud based CRM system
- Final report
 - The final report presents how to integrate business requirements
 - Identify what are the technical, service and business needs before CRM can be utilized in business

Course materials

- Based on journals, books, related links and studies
- Multimedia presentations, animations
- On-line session materials
- Comprehensive CRM information system documentation
- Document templates available for the course exercises

Course plan

- Contact hours and teacher's guidance in (estimated work load about 36 hours)
- On-line virtual learning sessions and remote support (estimated 12 hours)
- Self assignments, remote work (estimated 46 hours)
- Exam preparations (estimated 14 working hours)

Accreditation of prior learning (APL)

To get a passing (P) grade and exemption from the course, student must display and demonstrate the competence by certificates from earlier studies or work experience covering the course objectives and contents. It is possible to participate in the competence demonstration only once before taking the course

Teaching and learning methods

- Contact lessons
- Virtual e-learning sessions
- The assessment of one's own learning 1 h

Assessment criteria

Components	Grade 1 (45 %)	Grade 3 (65 %)	Grade 5 (85 %)
The business module	Good knowledge of the course subject. Collected more than 45% of the total course points.	Good knowledge of the course subject. Collected more than 65% of the total course points.	Excellent knowledge of the course subject. Collected 85% of maximum amount of the course points.
The system module	Basic knowledge of the learning objectives and worked according to instructions. On time deliverables. The requirement analysis is completed. More than 45% of the total course points is collected.	Good knowledge of the learning objectives and worked according to the course instructions. On time deliverables. The requirement analysis is completed. More than 65% of the total course points is collected.	Excellent knowledge of the learning objectives and good work according to the course instructions. The student shows independent and team working skills. On time deliverables. More than 85% of the total course points is collected.

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development.

Teacher responsible

Tuomo Rynänen

Requirements Analysis

- Code: BIG8TF005
- Extent: 5 cr (135h)
- Timing: 4th semester
- Language: English
- Level: Professional studies
- Type: Elective

Starting level

This course has no formal prerequisites but students who have a grade on the courses Orientation to Business and ICT, Business Process Management, Orientation to Software Engineering and Orientation to Digital Services are in the best position to get the full gain of this course.

Learning outcomes

Upon completion of this course, the student

- is familiar with the terminology and array of concepts that are relevant to the area of processing requirements on an information system,
- is familiar with the body of relevant research material of the area and methods to get at it,
- can apply his or her knowledge of the terminology and understanding of the concepts in real-life information system development situations,
- understands the dialogue between the system being developed and the system that is developing in a general business development situation, and can apply the understanding to manage information system development efforts,
- is in process of building a social network part of which is a real-life development concept and another part of which is a usable selection of information sources, and
- has a sound curiosity towards the area of processing requirements on an information system being developed and which curiosity he or she uses to learn more.

Course contents (relevant topics)

- Defining Requirements
- Requirements Discovery
- Classifying Requirements
- Techniques for Eliciting Requirements
- Sources and Authorities
- Managing Requirements

Cooperation with the business community

Possible guest lecturers from different companies. A real life project based assignments.

International dimension

Possible guest lecturers from international companies. International learning materials.

Teaching and learning methods

The pedagogical approach of this course is reflecting a true-life happening or phenomenon against theory. Then the acquired theory knowledge is tested and still deepened in a true-life empirical project. The theory studies are realized during the scheduled hours. Specific time is allotted each study day to work with preparation questions that support the theory studies. Specific time is also allotted to several small exams that have to do with the assessing of the student achievement. The empirical project takes place during the non-scheduled hours that are dispersed for the rest of the term. Counselling is available.

The assessment of one's own learning takes 1 hour

Recognition of prior learning (RPL)

Recognition of prior learning (APL) is observed on the course according to separate instructions.

Teacher(s) responsible

Jari Hyrkäs

Course materials

Primary Course book

- Ashrafi, N. and Ashrafi, H., 2008 or newer, Object-Oriented Systems Analysis and Design, Pearson Higher Ed (or Prentice Hall), ISBN-13: 9780131354791, ISBN-10: 0131354795, chapters 4, 1, 5, 6 and 2.5, or equivalent information in
- Dennis, A. and Wixom, B. H. and Roth, R. M., 2006 or newer, Systems Analysis and design, John Wiley and Sons, Inc., ISBN-13: 978-0-471-72257-1, ISBN-10: 0-471-72257-X.

Supportive Material

- Ashrafi, N. and Ashrafi, H., 2008 or newer, Object-Oriented Systems Analysis and Design, chapter 3.
- Kotonya, G. and Sommerville, I., 1998 or newer, Requirements Engineering: Processes and Techniques, Wiley, ISBN-10: 0471972088, ISBN-13: 9780471972082.
- Object Management Group, 2015, OMG Unified Modeling Language Specification: March 2015 Version 2.5 formal/2015-03-01, Object Management Group, UML Notation Guide as handed out for HH course bus1tf002 Business Process Design and Modelling ... See also the OMG UML Resource pages (accessed 8.8.2016 at <http://www.uml.org/>) or OMG website (accessed 8.8.2016 at <http://www.omg.org>).
- Other material handed out or created during the course.

Assessment criteria

The course is evaluated on scale 1 to 5.

Grade 1 (40%)

The student

- can identify, list and combine the main concepts and terminology discussed in the course
- has some understanding of the basic ways to obtain, model and manage information describing requirements for an information system
- has some understanding of the main issues associated with the activities mentioned above
- often needs assistance in solving basic problems with the assistance in form of dictation and has difficulties in using theoretical materials to support his or her learning

Grade 3 (70%)

The student

- has good understanding of the concepts and terminology discussed in the course
- has good understanding of the basic ways to obtain, model and manage information describing requirements for an information system
- has good understanding of the main issues associated with the activities mentioned above
- sometimes needs assistance in solving basic problems with the occasional assistance in form of dialogue
- can use the theoretical materials in an effective way to support his or her learning and
- can find more information from additional sources.

Grade 5 (90%)

The student

- has excellent understanding of the concepts and terminology discussed in the course
- has excellent understanding of the basic ways to obtain, model and manage information describing requirements for an information system
- has excellent understanding of the main issues associated with the activities mentioned above
- can solve problems independently, the eventual assistance being in form of dialogue
- can fluently use the course materials and other sources to support his or her learning
- can independently find more information from additional sources
- can independently learn more details of course topics and
- can eventually transfer and apply knowledge from other contexts

Assessment components

Examinations: 40%

Activity and assignments: 60%

Learning diary mandatory

The student should pass the examinations, complete the learning diary, and complete the assignments in order to pass the course. The learning diary assignment does not impact the grade.

Business Intelligence

Code: BIG4TF022

Extent: 5 credits (135 h)

Semester: 3

Language: English

Level: Profile studies

Type: Compulsory / Optional

Learning outcome

Upon successful completion of the course, the student

- a. understands the importance of Business Intelligence in today's competitive business environment
- b. is familiar with the basic concepts, ETL-process and technics used in the business environment
- c. has gained skills and competence in using market leading BI tools for creating solutions and analysing business information and data

Content

The main topics of this course are as follows:

- main concepts and introduction to Business Intelligence
- business value as a driver and BI maturity
- the ETL process in practice
- using of market leading tools to extract data and create data models
- introduction to agile development in BI

Starting Level and linkage with other courses

No prerequisites.

Assessment

The evaluation scale for an accepted course contains grades 1 to 5.

Grade 1

The student:

- a. has a basic understanding of the importance of Business Intelligence
- b. is familiar with at least some of the basic concepts, architectures, methodologies, strategies, tools or technics in BI
- c. has basic skills in using market leading BI tools for analysing business information and data

Grade 3

The student:

- a. has a good understanding of the importance of Business Intelligence
- d. is quite familiar with at least some of the basic concepts, architectures, methodologies, strategies, tools or technics in BI
- e. has some skills in using market leading BI tools for analysing business information and data

Grade 5

The student:

- b. has a very good understanding of the importance of Business Intelligence
- f. is very familiar with at least some of the basic concepts, architectures, methodologies, strategies, tools or technics in BI
- g. has good skills in using market leading BI tools for analysing business information and data

Working life connections

Guest lecture

Internationality

The software tools and languages used on the course are international. The language of the course material is mainly in English. Students from many nationalities work together in the analysis project.

Learning methods

The learning methods of this course are as follows:

- a. E-learning course with possibility to class sessions
- b. Module based self-study - hands-on, videos etc and/or
- c. Module based tasks where students demonstrate gained skills and competence and/or
- d. Exam in Exam-system and/or
- e. On-the-job learning and reporting and/or
- f. A combination of a – e.

This course accepts enrolments after the normal enrolment period.

The course can be done by e-learning / distance study.

Every student creates and follows an individual study plan.

The course appreciates individual focus and approaches.

Responsible teacher

Ralf Rehn

Business Intelligence Development Project

Code: BIG4TF023

Extent: 5 credits (135 h)

Semester: 3

Language: English

Level: Profile studies

Type: Compulsory / Optional

Learning outcome

Upon successful completion of the course, the student

- a. understands the value of business driven BI-development
- b. understands the agile BI development process
- c. understands the value of supporting business processes by BI-solutions
- d. has gained experience in creating a BI-solution by using agile development and market leading tools
- e. has learned to document the created solution and the process

Content

The main topics of this course are as follows:

- main development concepts and steps
- agile development in BI
- understanding data structures (ERP) and related business processes
- planning, developing and testing a complete BI-solution based on selected user stories
- documenting the BI development process and solution

Starting Level and linkage with other courses

Business Intelligence (BIG4TF022) passed or equivalent knowledge.

Assessment

The evaluation scale for an accepted course contains grades 1 to 5.

Grade 1

The student:

- a. has a basic understanding of the agile BI development process
- b. is familiar with data structures and related business processes
- c. has gained some understanding in planning and developing a BI-solution
- d. is able to utilize market leading tools to create a BI-solution

Grade 3

The student:

- a. has a good understanding of the agile BI development process
- b. is knowledgeable of data structures and related business processes
- c. has good insights in regards to planning and developing a BI-solution
- d. is confident in utilizing market leading tools to create a BI-solution

Grade 5

The student:

- a. has a very good understanding of the agile BI development process
- b. is very knowledgeable of data structures and related business processes
- c. has excellent skills in regards to planning and developing a BI-solution
- d. is mastering market leading tools to create a BI-solution

Working life connections

Guest lecture

Internationality

The software tools and languages used on the course are international. The language of the course material is mainly in English. Students from many nationalities work together in the analysis project.

Learning methods

The learning methods of this course are as follows:

- a. E-learning course with possibility to class sessions
- b. Project work – individually or in teams and/or
- c. On-the-job learning and reporting and/or
- d. A combination of a – c.

The course can be done by e-learning / distance study.
Every student is part of a project.

Responsible teacher

Ralf Rehn

Business IT Project

Code: PRO4TF022

Scope: 10 ECTS (270 h)

Timing: Fifth Semester

Language: English

Course level: Profile studies

Course type: Elective

Learning objectives

Upon successful completion of this course, the student understands the IT development process in regards to a real Business/ICT project.

Content

The student will participate as a team member or project leader in a project in one of the following main focus areas:

- Integrated Systems and Enterprise Resource Planning
- Customer Relationship Management
- Supply Chain Management
- Financial Accounting and Controlling
- Business Intelligence and Analytics

The type and purpose of the project is generally based on a commission and could be containing:

- Process development and/or testing
- Process modelling and design
- System/Version upgrade
- Data migration and/or Data management
- Reporting and Analytics
- Training and User support

Starting Level and linkage with other courses

The student must have passed the courses Orientation to Business and ICT and Business Operations, and have successfully passed at least one of the following courses Business Process Management, SAP ERP 1, SAP ERP 2. Managing CRM Processes, SCM in Business and Business Intelligence or similar courses in other degree programs.

Assessment

Accepted course is evaluated with grades 1 to 5.

Grade 1

The student has participated in the project but the individual contribution is minor and/or the quality of the deliverables is not or barely fulfilling the target.

Grade 3

The student has well participated in the project and the individual contribution is on a good level with timely and qualitative deliverables.

Grade 5

The student has been a key member of the project and the individual contribution has clearly had a great impact on the project outcome.

Working life connections

The target is to use real life business cases.

Internationality

International materials and examples may be used on the course

Learning methods

- Team and individual work based on a project plan
- Self and peer assessment
- Project assessment

Responsible teacher(s)

Jarmo Harmonen
Ralf Rehn

Big Data

- Code: ISM8TX100 (Master students), BUS8TF100 (Bachelor students)
- Extent: 5 ECTS (135 h)
- Timing: 2.-4. semester (Master students), 4.-6. semester (Bachelor students)
- Language: English
- Level: Professional/Advanced professional studies
- Type: Elective

Starting level and linkage with other courses

Basic understanding of data structures, formats and databases required. No particular courses required as prerequisites.

Learning outcomes

The overall objective of the course is to give the students insight to the business needs and technical methods for processing large volumes of heterogeneous and possibly rapidly changing and unstructured data. Master's degree students focus more on the business value whereas bachelor's degree students have the focus closer to the technology.

Upon successful completion of the course, the student

- knows the concept of big data and why it's different to more traditional data sets
- understands the opportunities the capability of processing big data may offer to the business
- is able to identify new sources of data for the business, such as crawling the web
- knows the tools and methods for collecting, analysing and visualising big data
- is capable of demonstrating the utilisation of big data in a specific case

Course contents

The course is centered around an exercise of big data utilisation. The topic may represent a real case occurring in a company or it may be picked up from the set provided by the course organiser. The topic may focus either on business benefits or technical solutions. The exercise may be conducted as a pair work or team work or individually. The contact lessons cover the following subjects

- Concepts and terminology
- New business opportunities and use cases
- Tools and methods
- Exercise counselling
- Presentations and discussions

Cooperation with the business community

The course contains either a guest lecture or an assignment from a company, or both.

International dimension

The cooperating companies are international and the course is conducted in English.

Teaching and learning methods

- Contact lessons
- Problem-based learning
- Literature analysis
- Exercise reporting and presentations
- The assessment of one's own learning 1 h

Accreditation of prior learning (APL)

Accreditation of Prior Learning (APL) is the generic term used for the award of credits on the basis of demonstrated learning which has taken place in the past. APL gives a student an opportunity to demonstrate his/her knowledge and skills. The student displays with evidence the participation on events that correspond the requirements set for this course and reports and presents the analysis result in the contact lessons. The prior learning is assessed on a scale from 1 to 5.

Teacher(s) responsible

Lili Aunimo

Course materials

- Data Science for Dummies, by Lillian Pierson and Jake Porway, 2017. Wiley et Sons.
- Jay Liebowitz: Business Analytics: An Introduction, 2014. CRC Press.

Other material given by the teacher

Assesment criteria

Quality of the exercise report

Presentations and discussions

The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers will also be used for course/module development. The assignment is completed online according to the instructions given in the course.

Digital Economy and E-commerce

Code: DIG8TF801

Extent: 5 cr

Timing: Summer

Language: English

Course level: Core studies

Course type: Optional

Learning objectives

Upon successful completion of the course, the student

- will learn the fundamentals of digital economy
- will learn what are on-going trends
- understands how e-commerce is related to digital economy
- increases personal awareness of security issues and learn few potential consequences
- gains understanding regarding the value of virtual networks in digital economy
- will identify the needs and skills required for setting up an own dynamic service
- Will learn how to setup and methods configure own platform

Course content

The course has two modules:

- The theory part will be based on a course books and the subject related materials. Also your own awareness helps to reach the module objectives. In the theory part, the objective is to understand what means digital economics and e-commerce and what are the requirements of digital economy and e-commerce.

Keywords: Platform business, SaaS, PaaS, IaaS, immaterial economics, immaterial commodities, standards, EU data protection, on-demand services

- Hands on self study using a content management system, e.g. WordPress. In this module your mission is to gain practical knowledge of how an e-commerce platform works and study how to build an e-commerce or content management environment.

Keywords: On-site/out sourcing production models, CMS, E-commerce systems, open source communities, software extensions and plugins, configuration, testing

How to set up Wordpress and services without technical and coding skills

Starting level and linkage with other courses

Pre-requisite: Orientation to Business and ICT

At least 46 completed credit units in the academical year

Course materials

- Based on journals, books, related links and studies
- Multimedia presentations, animations, On-line session materials
- CMS documentation and case samples
- Software themes, plugins and extensions

Assessment

Upon completion, the course is evaluated on a scale of 1 to 5.

Grade 5 (85 %)

The student has excellent theoretical knowledge. The student has a comprehensive understanding of the course subject and student has established skills as to how to develop a platform or can present a model how to produce a platform including demonstration. Student recognizes and adopt successfully the elements of e-commerce and/or digital economy.

Grade 3 (70%)

The student has good knowledge of the subject matter. The student has a good understanding of the course subject. He/she has sufficient skills as to how to use a platform for e-commerce purposes. Student recognizes and adopt successfully the elements of e-commerce and/or digital economy.

Grade 1 (40%)

The student has sufficient knowledge of the course subject matter. The student has some skill how to use or develop a platform.

Accreditation of prior learning (APL)

To get a passing (P) grade and exemption from the course, student must display and demonstrate the competence by certificates from earlier studies or work experience covering the course objectives and contents.

Working life connections

Case studies, community work, git hub repositories

In the end of the course there will be a case sample how small and medium sized enterprises can produce platforms without remarkable financial investments

Internationality

The software tools and language used on the course are internationally recognized. The language of the course material is English.

Learning methods

- a. Contact hours, on-line virtual sessions, presentations
- b. The exam
- c. Self study and remote work

Course teacher

Tuomo Rynänen, tuomo.ryynanen@haaga-helia.fi

Financial Accounting, Processes and Systems

Code: BIG8TF008

Extent: 5 cr (133 h)

Timing: 6/7th semester

Language: English

Level: Profile studies

Type: Optional

Starting level and linkage with other courses

Preferably the student is familiar with ERP and other main concepts in Business and ICT.

Learning outcomes

After passing this course the student

- is familiar with the basic accounting concepts and can identify common accounting processes
- understands the importance of accounting and accounting processes in the business environment
- has a solid understanding of the business process integration to accounting in an integrated systems
- has a basic knowledge of Microsoft Dynamics Nav accounting functionality and knows how to customize the accounting processes in Microsoft Dynamics Nav
- has gained some experience of SAP ERP accounting functionality (FI) and is familiar with the main concepts of FI and CO

Course contents

The basic accounting principles and processes in a business environment

The sales and purchase process and the integration to accounting in a business environment

Microsoft Dynamics Nav and SAP ERP – sales and purchases, integration and accounting processes

Course materials

Course books:

- Concepts in Enterprise Resource Planning, Monk & Wagner 2008
- Introduction to Financial Accounting, Horngren Edition 8 or newer
- Integrating SAP ERP Financials: Configuration and Design, Naeem Arif and Sheikh Tauseef
- SAP ERP Financials: Configuration and Design , Naeem Arif
- Finance in Microsoft Dynamics Nav 5.0 course (outdated – partially)

Additional material:

- Microsoft training material available as E-learning self-study material
- Material and links provided in the E-learning environment or otherwise instructed by teacher.

Cooperation with the business community

Guest lecturers

Teaching and learning methods

Lectures and workshops 32 h

Team assignment, individual assignments and self-study 96 h

Assessment of one's own learning 1 h

Module tests and/or Exam 4 h

International dimension

The course utilizes international material as well as applications in English.

Assessment criteria

Assessment is dependent on implementation type and is:

- 25-50 % assignments, activity and individual contribution
- 50-75 % exam or module tests

Level 1-2	Level 3-4	Level 5
<p>Student:</p> <ul style="list-style-type: none">• Has sufficient knowledge of the basic accounting concepts and principles.• Is familiar with the main accounting processes and their role in a business environment.• Has sufficient knowledge of SAP ERP FI/CO basic concepts and of the basic accounting processes in SAP ERP.• Has some skills in customizing the accounting processes in	<p>Student in addition:</p> <ul style="list-style-type: none">• Has a good knowledge of the basic accounting concepts and principles.• Is familiar with the main accounting processes and their role in a business environment.• Has a good knowledge of SAP ERP FI/CO basic concepts and of the basic accounting processes in SAP ERP.• Has good skills in customizing the accounting processes in	<p>Student in addition:</p> <ul style="list-style-type: none">• Has a very good knowledge of the basic accounting concepts and principles.• Is very familiar with the main accounting processes and their role in a business environment.• Has excellent knowledge of SAP ERP FI/CO basic concepts and of the basic accounting processes in SAP ERP.• Has excellent skills in customizing the accounting

<p>Microsoft Dynamics Nav.</p> <ul style="list-style-type: none"> • Has a general understanding of business integration in SAP ECC and Microsoft Dynamics Nav ERP-systems. 	<p>Microsoft Dynamics Nav.</p> <ul style="list-style-type: none"> • Has a good general understanding of business integration in SAP ERP and Microsoft Dynamics Nav ERP-systems. 	<p>processes in Microsoft Dynamics Nav.</p> <ul style="list-style-type: none"> • Has a very good general understanding of business integration in SAP ECC and Microsoft Dynamics Nav ERP systems.
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The assessment of one's own learning does not influence the grade. The assignment is the same for all courses/modules and the answers are used for course/module development.

Accreditation of prior learning (APL)

To get a passing (P) grade and exemption from the course, student must display and demonstrate the competence by certificates from earlier studies or work experience covering the course objectives and contents. The student is to enroll for the course thru normal enrolment principals and then contact the teacher to start the APL-procedure.

Teacher(s) responsible

Ralf Rehn

Arduino Projects

Code: SWD8TF900

Scope: 5 ECTS (135 h)

Timing: 1. - 7. semesters (arranged occasionally)

Language: English

Curriculum: DIGIE

Course level: Professional Studies

Course type: Elective Course

Starting level and linkage with other courses

No prerequisites. After this course, students could study further Internet of Things (IoT) topics, like Raspberry Pi.

Learning goals

Getting insight about how to turn real life phenomena (e.g. temperature) into information on a tiny single purpose computer (microcontroller). Moreover, how the insight will be used to initiate outcomes in the physical world based on the calculations and commands of the microcontroller (e.g. cooling fan starting when needed).

Contents

Sensors and Actuators. The very basics of electronics and microcontroller. Programming code for decision-making.

More information: <http://myy.haaga-helia.fi/~valju/ArduinoProjectsCourse/>

Learning objectives and assessment

Accepted grades 1-5

- 1 - Knows about the tech and tools.
- 2 - Can use the tech and tools with help.
- 3 - Can use the tech and tools independently without help.
- 4 - Able to use the tech and tools professionally, teach them to others, and learn more about them independently.
- 5 - Also understands the broader meaning of the tech and tools, and can evaluate their strengths and weaknesses and compare tools for a purpose.

Recognizing and validating prior learning (RPL)

Case by case. For those who have built IoT systems already, demonstrate your project and prepare to answer questions in face-to-face interview.

Working life connections

Not organized directly through this course. Nevertheless, several students have done IoT projects for customers or companies.

Internationality

Teams consist of both Finnish and multinational students. All used materials, technologies and methods are international.

Learning methods

Independent team, pair, or individual work on projects. Documented as pictures, videos and free form diary.

In addition to that, there will be a 10-30 page free format notes that are graded individually. Topics are selected by the student.

Course teachers

Juhani Välimäki

StartUp School - Future Working Skills

Code: WOR8HH033

Scope: number of credits: 1 ECTS

Timing: 1.-7. semester

Language: English and Finnish

Course level: Professional Studies (or Free-choice)

Course type: Elective (or Free-choice)

Details of implementation and enrollment, please, see <http://startupschool.fi/what-we-offer/courses/>

Starting level and linkage with other courses

No requirements

Learning objectives and assessment

You learn which working skills are the most important for the future, and reflect on your way of working. You will clarify your personal skills and development areas, and make a development plan.

Course assessment is on a scale of 1 to 5. The assessment criteria is on scale 1-3-5.

Grade 1

Identifies personal working skills and communicates them to the group.

Can find development areas of personal working skills.

Can give input to the other students about their working skills.

Grade 3

Can identify personal working skills and communicate them to the group.

Can find development areas and create a personal plan to strengthen these.

Can give constructive feedback and support other students.

Grade 5

Can identify personal working skills, analyse and write an advanced development plan for those working skills.

Can give constructive feedback, support and give new ideas to other students' development plans.

Recognising and validating prior learning (RPL)

Accreditation of prior learning is applied on the course according to separate instructions. Please contact startupschool@haaga-helia.fi.

Internationality

Internationality is visible throughout the course and the assignments.

Contents

Group coaching, learning diary and assignments.

Learning methods

This course will be implemented using group coaching methods. Teacher will give directions and act as a facilitator.

Course includes mandatory self-learning assignments.

Assessment

Assessment is based on evaluation of assignments, learning diary and activity within the group work sessions.

Course teacher(s)

Maria Haukka maria.haukka@haaga-helia.fi

Learning materials

Provided by the teacher.

StartUp School - Find Your Strengths

Code: WOR8HH032

Scope: 5 ECTS

Timing: 1.-7. Semester

Language: English and Finnish

Course level: Professional Studies (or Free-choice)

Course type: Elective (or Free-choice)

Details of implementation and enrollment, please, see <http://startupschool.fi/what-we-offer/courses/>

Starting level and linkage with other courses

No requirements.

Learning objectives and assessment

Find and analyse your personal values, interests, passions and strengths. By analysing skills and competences you clarify your future professional career. Career can be self-employment, employment within an organisation or creation of a business idea. You learn self-leadership competences, and recognises development areas of his/her personal skills.

Course assessment is on a scale of 1 to 5. The assessment criteria is on scale 1-3-5.

Grade 1

Finds personal values, interests, passions and strengths

Recognises development areas and creates a development plan

Grade 3

Can reflect of her/his learning

Can develop independently her/his professional career or business idea

Understands importance of ongoing professional self-development

Grade 5

Recognises her/his strengths and knows how to develop them independently

Evaluates her/his self-development critically and acts accordingly

Student learns the principles of coaching and helps other students in their own development areas

Recognising and validating prior learning (RPL)

Accreditation of prior learning is applied on the course according to separate instructions. Please contact startupschool@haaga-helia.fi.

Internationality

Internationality is visible through the course and the assignments.

Contents

The objective of the course is to develop your self-knowledge and self-leadership skills.

Each group has students with different competences and development areas for which the teacher tailors the course content accordingly. You will learn how to enlarge and utilize your networks. Also, you will get familiar with the coaching process.

Content can be as follows:

Identifying personal strengths

Understanding personal motivation and values behind motivation

Improving self-leadership skills and development areas

Developing self-knowledge

Learning better interaction methods

Learning methods

This course will be implemented as group coaching methods. Teacher will give directions, and acts as a facilitator.

Course includes mandatory self-learning assessments.

Assessment

Assessment is based on the evaluation of several assignments, and activity within the group coaching sessions.

Course teacher(s)

Please contact startupschool@haaga-helia.fi

Learning materials

Learning materials are provided by the teacher.

StartUp School - WarmUp Parade

Code: WOR8HH013

Scope: 3 ECTS (81 h)

Timing: 1.-7. semester

Language: English (assignments can be done either in English or Finnish)

Course level: Professional Studies (or Free-choice)

Course type: Elective (or Free-choice)

Details of implementation and enrollment, please, see <http://startupschool.fi/what-we-offer/courses/>

Starting level and linkage with other courses

No prerequisites.

Learning objectives and assessment

Upon successful completion of the course, the student:

- learns about entrepreneurship and attitudes through real life cases
- learns different ways to come up with a business idea and has thought of some potential ideas for him-/herself
- is able to take into account the factors affecting team building
- has further developed his/her skills in overcoming challenges
- is able to reflect and analyze his/her own possibilities and development needs as an entrepreneur

Recognizing and validating prior learning (RPL)

Accreditation of prior learning is applied on the course according to separate instructions. Please contact startupschool@haaga-helia.fi.

Working life connections

Company guest speakers and the student's own business idea.

Internationality

Internationality is visible through the guest speakers and assignments.

Contents

Students will become acquainted with entrepreneurship through the knowledge and examples provided by the visiting experts and entrepreneurs and by reading the course materials. By doing assignments online, students will reflect and analyse visitors', other entrepreneurs' or their own business idea and ways to develop themselves further.

Learning methods

8 h StartUp School WarmUp events, students choose at least two out of four events, which they will participate in.

73 h independent studies and individual assignments.

Assessment

Required:

- Student attends at least two (2) of the four sessions of WarmUps
- Student successfully completes four (4) assignments of the possible seven (7) ones. Assignments 1-4 are related to the WarmUp events and assignments 5-7 can be completed without attending the events. At least two (2) of the completed assignments have to be related to the WarmUp events.

The course is graded on the scale 1-5. Assessment criteria from GLOBBA Competence Grid.

Grading/ Components	1-2	3-4	5
Knowledge	You know the key concepts within the course's scope, but are yet to develop the general view and the big picture of the subject matter.	You know the key concepts well and can explain how the theories and models function and the tools are used. You have a general view of the subject matter.	You have a strong command of the key and related concepts. You can critically evaluate theories, models and tools. You can demonstrate explicit knowledge of the subject matter, and how it relates to other disciplines.
Skills	You can complete given tasks and assignments with assistance. You need to develop how to apply knowledge.	You complete given tasks and assignments independently. You apply knowledge in hands-on business related situations. You can critique your own practice and identify ways to improve.	You apply knowledge in demanding business related situations. You can prioritize and critically select tools and methods for solving complex problems in the subject matter.

Competence	You demonstrate some ability to perform skills and have basic knowledge, but you have difficulty to manage without assistance.	You demonstrate sufficient ability to perform skills and have basic to good knowledge. You can perform independently, but you have some challenges in passing on your skills and knowledge to others. You have an interest in professional development.	You execute skills with natural proficiency and you have detailed and explicit knowledge. You can perform independently and you are also able and actively willing to help others develop and pass on your skills. You have an attitude of continuous professional development.
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Course teacher(s)

Taru-Lotta Gumse and Irma Mäkäräinen-Suni

Learning materials

Books: Taivas + Helvetti 1-3 (in Finnish) & Founders at work (in English)

Module specific materials in Moodle

Material given at WarmUp events

StartUp School - Developing Entrepreneurial Mindset

Course name: StartUp School – Developing Entrepreneurial Mindset

Code: **WOR8HH022**

Scope: 5 ECTS (135 h)

Timing: 1.-7. semester

Language: English or Finnish

Course level: Professional Studies (or Free-choice)

Course type: Elective (or Free-choice)

Details of implementation and enrolment, please, see <http://startupschool.fi/what-we-offer/courses/>

Starting level and linkage with other courses

You should have a business idea to work with before entering this course.

Learning objectives

You will analyse yourself as an entrepreneur and learn to understand entrepreneurial lifestyle. By taking the first steps to define and develop the idea towards feasible business, you will start building your own entrepreneurial path. You also analyse and start to extend your entrepreneurial network during this course.

Recognizing and validating prior learning (RPL)

Accreditation of prior learning is applied on the course according to separate instructions. Please contact startupschool@haaga-helia.fi.

Working life connections

You develop and describe your own business idea and validate it with potential customers.

Internationality

Internationality is visible through the assignments, meetings and group discussions.

Content

- Me as an Entrepreneur
- Entrepreneurship as a lifestyle
- Customer problem and value proposition
- Idea description and prototype creation
- Network analysis and interview of the entrepreneur
- Cost structure and revenue streams
- Pitching your idea to the entrepreneurial society

Learning methods

Two f-2-f meetings, independent assignments, discussions and comments to the other students and pitching your idea.

Assessment criteria

You work independently, return your assignments, and discuss actively and develop your business idea during the course. Course assessment is on a scale of 1 to 5. The assessment criteria is on a scale of 1-3-5.

Grading/ Components	1	3	5
Self-leadership	Student understands own strengths and development areas. He/she identifies own entrepreneurial vision.	+ Based on self-analysis and discussions with others, student recognizes where he needs help and can build his activities based on this analysis.	+ Student creates a realistic and personal entrepreneur development plan and starts to implement it.
Communication and networks	Student describes his own network and recognizes for whom (stakeholders) he needs to communicate the business idea.	+ Student identifies the communication needs related to each stakeholder.	+ Student prepares communication plan to support the implementation of the business idea and justifies the need for those.
Idea development	Student takes the first customer contacts to test the idea and vision. Student describes customer problem, solution and value proposition of the idea.	+ Student tests and develops the idea further based on the customer feedback. + Student analyses and describes the business model of the idea	+ Student creates, describes and justifies the business idea as feasible business case, pitch and justify it to the other students.
Team work	Contribution in the group discussions active and student gives feedback to the others.	+ Student participates in the group discussions actively and helps other students with their challenges.	+ Student participates to the group discussion in Impressive way and contributes to the other students and share new ideas to the other students' work.

Teachers responsible

Päivi Williams

Course material

Available on Claned <https://app.claned.com>

StartUp School - Pitching Camp

Code: WOR8HH023

Scope: 3 ECTS (81 h)

Timing: 1.-7. semester

Language: English or Finnish

Course level: Professional Studies (or Free-choice)

Course type: Elective (or Free-choice)

Details of implementation and enrollment, please, see <http://startupschool.fi/what-we-offer/courses/>

Starting level and linkage with other courses

Student has successfully either completed the StartUp School Developing Entrepreneurial Mindset (WOR8HH022) course, or she/he has shown equivalent competences in some other way (including developing a business plan).

Learning objectives and assessment

Student can present her/his business idea clearly and effectively to the audience according to the timeframes. Student is able to communicate the uniqueness of the idea. She/he will develop the business idea and the pitch further based on the feedback. Student is able to give feedback and develop networks with other entrepreneurs and stakeholders.

During this course, student will:

- Practice pitching
- Practice presentation skills
- Train peer support, feedback and networking
- Practice target setting and working under pressure

Recognizing and validating prior learning (RPL)

Accreditation of prior learning is applied on the course according to separate instructions. Please contact startupschool@haaga-helia.fi.

Working life connections

Co-operation with experienced entrepreneurs and business developers is involved.

Internationality

Internationality is visible through the assignments.

Contents

Student will participate in a pitching workshop where she/he will practice and develop pitching. Student will give feedback to the other students and improve her/his pitching during the workshop.

The workshop has two pitching rounds where coaches will evaluate the effectiveness and clarity of the idea presentation.

Learning methods

Pre-assignment

Intensive pitching workshop

Post-assignment

Assessment

Course assessment is on a scale of 1 to 5. The assessment criteria is on scale 1-3-5. Assessment criteria is from GLOBBA Competence Grid.

Grading/ Components	1-2	3-4	5
Knowledge	You know the key concepts within the course's scope, but are yet to develop the general view and the big picture of the subject matter.	You know the key concepts well and can explain how the theories and models function and the tools are used. You have a general view of the subject matter.	You have a strong command of the key and related concepts. You can critically evaluate theories, models and tools. You can demonstrate explicit knowledge of the subject matter, and how it relates to other disciplines.
Skills	You can complete given tasks and assignments with assistance. You need to develop how to apply knowledge.	You complete given tasks and assignments independently. You apply knowledge in hands-on business related situations. You can critique your own practice and identify ways to improve.	You apply knowledge in demanding business related situations. You can prioritize and critically select tools and methods for solving complex problems in the subject matter.

<p>Competence</p>	<p>You demonstrate some ability to perform skills and have basic knowledge, but you have difficulty to manage without assistance.</p>	<p>You demonstrate sufficient ability to perform skills and have basic to good knowledge. You can perform independently, but you have some challenges in passing on your skills and knowledge to others. You have an interest in professional development.</p>	<p>You execute skills with natural proficiency and you have detailed and explicit knowledge. You can perform independently and you are also able and actively willing to help others develop and pass on your skills. You have an attitude of continuous professional development.</p>
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Course teacher

Timo-Pekka Uotila

Course materials

Course materials are provided with the pre- and post-assignments, and during the camp.

Work Placement

- Code: PLA6TF001
- Extent: 30 ECTS (810 h) or 15 ECTS (405 h) + 15 ECTS (405 h)
- Timing: Semester 5 or 6
- Language: depends on the work placement organization
- Level: work placement
- Type: compulsory

The course follows the DIGIE curriculum.

Prerequisites

The student can start the work placement normally when all the compulsory and elective core studies have been completed. According to the normal study plan the work placement takes place after two years of studies. If the work placement is completed in two parts, the first part can be accepted earlier.

Learning objectives

The students:

- Familiarise themselves with the practical IT applications of the work placement organisation, as well as with the software development and maintenance practises

Course contents

The work placement required of all students is an essential part of the studies. It accounts for 30 credit points (100 working days) and is completed without interruption.

The student applies for a job her-/himself. All IT work that supports the student's studies qualifies as work placement. Advisable areas are programming, system analysis, and design or similar development and maintenance tasks or digital services. PC- and network support tasks as well as computer operator's work are also suitable.

Teaching and learning methods

Named work placement counsellors guide the student during the work placement. A work placement counsellor is appointed both by the work placement organisation and by Haaga-Helia. The student attends the meetings to be called by the Haaga-Helia's work placement counsellor prior/during and/or after the work placement, writes a work placement report and hands it in for evaluation to Haaga-Helia's work placement counsellor. In addition, the student answers the questions of the work placement feedback on Moodle. This information is available to all students who want some help for looking for the work placement opportunity.

Teacher responsible

Anitta Orpana, Pasila

Assessment criteria

Passed (H)/failed (no grade)