



Westerdals

Oslo School of Arts,
Communication and Technology

Curriculum Autumn 2017*

Bachelor in IT – Interactive Design

Faculty of Technology

All information revised as of October 2016. Note that all curricula may be updated*

1 Introduction

The steadily increasing and future-oriented digitalisation we have observed in the past 10 years have made consumer needs and wishes even more essential than before. Also, the increasing offer of information and digital self-service solutions, in the private as well as the public sector, demands more of the solutions offered. Usability is a central concept in the technological development, and creating good user experiences is becoming increasingly more important. Thus, knowledge of interaction design is a premise for developing user-friendly solutions and creating adequate and good visual expressions.

Interaction designers design interactive systems, from computers and mobile phones to quite ordinary products. Interaction design is thus related to industrial design, but it also comprises knowledge from a number of other disciplines such as psychology, sociology, anthropology, informatics, media and communication, various engineering disciplines, graphic design, and film. Knowledge about the possibilities that technology opens up for, as well as the ability to identify user demands, are essential prerequisites for enhancing the quality of future solutions. Web success can be measured in user satisfaction and organisational profit, but is above all created through good solutions developed by designers with wide and solid knowledge.

1.1 Curriculum overview – Interactive Design

The bachelor’s programme in Interactive Design is a 3-year study awarding the degree Bachelor in IT. The structure of the programme is shown in the course matrix below.

Sem6	Research Methods (7.5 ECTS)	Bachelor’s Thesis (22.5 ECTS)		
Sem5	Elective (7.5 ECTS)	Consumer Psychology (7.5 ECTS)	Interaction Design 3 (7.5 ECTS)	Effect Evaluation: Techniques and Tools (7.5 ECTS)
Sem4	Project Software Engineering (15 ECTS)	Web Development 2 (7.5 ECTS)	Interaction Design 2 (7.5 ECTS)	Designlab (7.5 ECTS)
Sem3		Web Development 1 (7.5 ECTS)	Interaction Design 1 (7.5 ECTS)	Content Management Systems (7.5 ECTS)
Sem2	Elective (7.5 ECTS)	Object Oriented Programming 2 (7.5 ECTS)	Information Security (7.5 ECTS)	Iterative Web Project (7.5 ECTS)
Sem1	Databases 1 (7.5 ECTS)	Object Oriented Programming 1 (7.5 ECTS)	Digital Technology (7.5 ECTS)	Creative Web Project (7.5 ECTS)
	7.5 ECTS credits	7.5 ECTS credits	7.5 ECTS credits	7.5 ECTS credits

Yellow boxes denote that the course is taught jointly with one or more other study programme. Green boxes show where optional courses (electives) are placed in the curriculum. In the 2nd semester students choose an elective from a pool of optional courses across faculties and programmes. Electives are also offered by the Faculty of Technology.

Electives in the 2nd semester (Spring)

DS2100 Animation (7.5 ECTS)
DS2200 Digital Culture (7.5 ECTS)
PG2201 Unity Development (7.5 ECTS)

Electives in the 5th semester (Autumn), Bachelor in Interactive Design

PRG300 Web Development 3 (7.5 ECTS)
IS5200 Business Intelligence (7.5 ECTS)
PRO300 Virtual Reality Project (7.5 ECTS)

The first year of study is jointly taught with the other bachelor's programmes in IT, providing solid basic qualifications in programming, project work, system development, data technology and databases.

In the subsequent two years, teaching has to do with project, process and technology. Students work in projects that last one or two semesters and are linked to the process-oriented teaching where students are introduced to the various processes that are part of an interaction design project, and to technically oriented tool instruction.

The second year of study introduces design oriented thinking and web design, and the software tools interaction designers need, such as Flash, Photoshop, Dreamweaver, MS Visio, and various prototype tools. The second year also introduces the main subject of this programme: interaction design. Teaching consists of lectures with subsequent hands-on exercises; thus, lectures seek to be as hands-on as possible. Throughout the entire academic year the students work in groups, carrying out a large development project.

The third year has its focus on in-depth study and practical use of the knowledge gained in the second year. This results in a main project in the last semester (6th semester), in which the students solve a challenging task related to the courses they have studied in the first and second years, in close contact with a private or public organisation. As in the second year, lectures in the third and last year are hands-on with subsequent lab exercises.

1.2 About the study

The bachelor's programme in IT specialising in interactive design aims to educate candidates with a competence in the design of good, interactive interfaces between IT technology and users. The programme has a strong emphasis on industry cooperation, involving practical work in cross-disciplinary student teams, which gives the students important experience in working with complex issues and a broad basis for success in their future careers striving to develop good user experiences for customers, employees and other users of digital tools and services.

The study programme develops a number of skills relevant in all steps of an interaction design process, from planning, data collection and analysis, concept descriptions and prototypes, to finished product and testing of usability quality, both during the process and to complete the finished product. Therefore, providing solid knowledge of creating good user experiences and high-quality solutions makes up a central part of the study. Further, the study has a comprehensive approach to developing interactive solutions, primary meant for the Web, and trains students to work with solutions with a theoretical as well as a practical approach.

At successfully completed 3-year study programme a candidate will have gained a learning outcome defined by the following knowledge, skills and general competence:

Knowledge – the candidate

- knows central themes (idea creation, identification of user needs, forms of evaluation, etc.) in connection with the interaction design process when developing various IT solutions or technologies, with the emphasis primary on web and mobile interfaces
- knows how to create good user experiences through knowledge of various design principles, quality aspects and identification of the users' needs and expectations
- knows about central technologies or tools and how to use them
- knows user testing and central forms of assessment in connection with an interaction design process
- possesses competence concerning theories, questions, development and evaluation of solutions in relation to web and interaction design
- knows research and development work in web and interaction design, and its importance in society and business life

Skills – the candidate

- is able to use the knowledge gained in the research areas of web and interaction design, and to inform her-/himself about new relevant issues
- masters various relevant and professional tools or software, techniques and quality principles for design

General competence – the candidate

- is able to contribute to an interaction process for the design and development of a number of IT solutions or technologies
- is able to participate in the implementation and evaluation of IT solutions or technologies
- is able to participate in the planning, development and evaluation of various interface designs
- is able to participate in future development and be a resource for creativity, human-to-machine interaction, design, and evaluation (user testing)
- is able to contribute to innovation and innovative thinking in various types of organisation for the use of interactive media or screen media

1.3 About the programme

Bachelor in IT – Interactive Design has the following central themes and anchoring: In addition to basic IT knowledge the study teaches disciplines such as visual communication and design, basic and advanced web design and interaction design, qualitative and quantitative research methods, and methods for evaluation and analysis. The study is

anchored in current human-computer interaction (HCI) research that emphasises user centred development and design meant for screen media.

2 Individual courses offered to exchange students Autumn 2017

2.1 IS6200 Effect Evaluation: Techniques and Tools

Norwegian name: Effektevaluering: teknikker og verktøy

ECTS credits: 7.5

Area of study: Technology/IT

Language of instruction: English

Programme: Mandatory course in Bachelor in IT – Interactive Design, and in Bachelor in Digital Marketing

Required prerequisites: None

Recommended prerequisites: None

Semester: The course is taught in the 5th semester for Interactive Design and the 6th semester for Digital Marketing

Course leader: Asle Fagerstrøm

Course outline

Business enterprises that have success with digital campaigns have a common feature: they use resources on measuring effects and profits related to the various measures taken. Continuous improvement is therefore based on knowledge of success factors. In this work it is essential to establish good routines to evaluate and measure that which contributes to success. The business should define measurement parameters to be used in the improvement process. Knowledge of and skills in using techniques and tools are also essential to be able to carry out measurements of the effect of digital campaigns. The course aims to give the students the necessary knowledge and skills to enable them to evaluate effects and thus carry on continuous improvement of a company's campaigns. The course is taught as two parts, one part introducing routines and techniques for effect measurements while the other part is lab work with practical use of tools.

Learning outcome

Knowledge: At completion of the course the candidate will

- understand the importance of continuously measuring the effect of digital campaigns
- know laws that regulate the measuring of effects in digital campaigns

Skills: At completion of the course the candidate will be able to

- establish processes for continuous measurement and improvement of digital campaigns
- define measurement parameters for measuring effect
- use a number of techniques and tools to measure effects

- process and analyse data related to digital campaigns
- present results in writing as well as orally

General competence: At completion of the course the candidate will have the ability to

- reflect on ethical issues related to measuring effects when using digital tools

Methods of teaching and learning

The course is taught with a combination of lectures and lab work.

Recommended workload

Participation in classes – 44 hours

Self-study – 60 hours

Independent preparations for presentations/discussions in class – 6 hours

Exercises – 0 hours

Assessment and preparing for the exam – 90 hours

Total recommended workload – 200 hours

Technology and tools

Google analytics, MS Excel, MediaLab, SurveyMonkey, etc.

Learning material

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. There is also information on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Coursework requirements

The course is being revised and the decision on required coursework is expected in the 4th quarter of 2016.

Assessment

The course is being revised and the form of assessment as well as the grading scale will be decided in the 4th quarter of 2016.

Assessment criteria

The form of assessment is being decided and will be made known in Spring 2017.

Notes

Westerdals Oslo ACT is carrying out an extensive revision of all study programmes. The course IS6200 Effect Evaluation: Techniques and Tools is revised in the 3rd quarter of 2016. In particular the form of assessment and the relationship between content, progression and assessment is under revision.

It is to be expected that the revision will entail adjustments of the courses and also exams. The revised curriculum will be finished and published in the course of the autumn 2016 and in good time before the beginning of the 2017 spring semester.

2.2 BU5200 Consumer Behaviour

Norwegian name: Forbrukerpsykologi

ECTS credits: 7.5

Area of study: Technology/IT

Language of instruction: NO

Programme: Mandatory course in Bachelor in IT – Interactive Design, and in Bachelor in Digital Marketing; optional course in other specialisations in Bachelor in IT

Required prerequisites: None

Recommended prerequisites: None apart from admission to Interactive Design or Digital Marketing

Semester: The course is taught in the 5th semester, for the first time in Autumn 2017 in Digital Marketing

Course leader: Asle Fagerstrøm

Revision: The course is being revised; see “Assessment” and “Notes”

Course outline

The course aims to give a basic introduction to the factors that control and influence consumer behaviour and how to capitalise on these factors in digital marketing. A special emphasis is placed on mapping the conditions that influence the need for products and services, the decision processes behind the purchase of a product or service, and the way products and services are used. After completing the course students will have sufficient knowledge and competence to use a number of theories and models to describe what leads to consumers' choice of products or services, and to describe what happens after purchase and what influences future purchases.

Learning outcome

Knowledge: At completion of the course the candidate will

- understand the importance of possessing knowledge of consumer behaviour in marketing
- know a number of techniques for market surveys

Skills: At completion of the course the candidate will be able to

- segment a market
- describe the purchasing process of consumers for the purchase of a product or service
- describe individual factors such as motivation, personality and perception, and how they influence the choice of consumers
- describe the way consumers learn
- describe and analyse consumer attitudes and suggest strategies for changing attitudes
- describe how social factors such as reference groups, socio-cultural groups and culture influence consumer choices
- analyse processes related to the adoption and diffusion of news

General competence: At completion of the course the candidate will have the ability to

- reflect on ethical issues related to influencing and persuading consumers in digital marketing

Methods of teaching and learning

The course is taught with a combination of lectures and case discussions.

Recommended workload

Participation in classes and tutorials – 44 hours

Self-study – 66 hours

Exam and preparing for the exam – 90 hours

Total recommended workload – 200 hours

Technology and tools

NA

Learning material

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. There is also information on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Coursework requirements

The course is being revised and the decision on required coursework has not yet been taken. The decision is expected taken in the 4th quarter of 2016.

Assessment

The course is being revised and the form of assessment as well as the grading scale will most probably be decided in the 4th quarter of 2016.

Assessment criteria

See Learning Outcome

Notes

Westerdals Oslo ACT is undertaking an extensive revision of all study programmes in 2016. The course BU5200 Consumer Psychology/Consumer Behaviour will be revised in the 3rd quarter of 2016 and the assessment form as well as the relationship between content, progression and assessment will be subject for revision.

4.3 DS5300 Interaction Design 3

Norwegian name: Interaksjonsdesign 3

ECTS credits: 7.5

Area of study: Technology/IT

Language of instruction: English

Programme: Mandatory course in Bachelor in IT – Interactive Design, and in Bachelor in IT – Mobile Programming

Required prerequisites: Successful completion of DS4300 or equivalent previous knowledge

Recommended prerequisites: None

Semester: The course is taught in the 5th semester

Course leader: Sturla Bakke

Course outline

In this course the students will gain advanced knowledge of theories related to interaction design and the use of interaction design patterns. The course takes the form of a design process in which the students learn step by step in the process.

Learning outcome

Knowledge: At completion of the course candidates will

- have gained knowledge of principles of interaction design
- have deep knowledge of usability and user testing
- have advanced knowledge of information architecture

Skills: At completion of the course candidates will be able to

- carry out data compilation and data analysis at different stages of a design process
- apply and evaluate design patterns
- apply principles of interaction design
- use personas and scenarios as tools in a design process

General competence: At completion of the course candidates will be able to

- use the gained knowledge of HCI (Human-Computer Interaction) in a design process

Teaching and learning methods

The course is taught with lectures, lab-based instruction, and individual and group-based project work.

Recommended workload

Participation in lectures and tutorials – 40 hours

Self-study – 60 hours

Independent preparation for presentations and discussions in class – 10 hours

Examination and preparing for the examination – 90 hours

Total recommended workload – 200 hours

Technology and tools

Tools for wireframes: Balsamiq in online version and Axure RP on lab machines

Learning material/Syllabus

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. The information is also available on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Coursework requirements

The course is being revised and course requirements have not yet been decided. The decision is expected in the autumn of 2016.

Assessment

The course is being revised and the examination form grading scale have not yet been decided. The decision is expected in the autumn of 2016.

Assessment criteria

See Learning outcome

Notes

Westerdals Oslo ACT carries out an extensive revision of all study programmes in 2016 . This revision of the course will be completed in the autumn of 2016. In particular, the examination form and the relationship between content, progression and examination are being thoroughly revised.

2.6 PRG300 Web Development 3

Norwegian name: Webutvikling 3

ECTS credits: 7.5

Area of study: Technology/IT

Language of instruction: English

Programme: Optional course in Bachelor in IT – Interactive Design and in Bachelor in IT – E-Business

Required prerequisites: None

Recommended prerequisites: Basic HTML, CSS, JavaScript and Object oriented programming

Semester: The course is taught in the 5th semester (Autumn)

Course leader: Rolando Gonzalez

External examiner: Christoph Schmitz

Approved: 29 March 2016

Course outline

The course will give students experience and skills in central technologies in web development with Ajax, CSS framework, JavaScript framework and Web API (back-end development with C#.NET).

Learning outcome

Knowledge: At completion of the course candidates will

- be able to explain how Ajax functions and the benefits of using Ajax
- be able to explain the benefits of using a CSS framework
- be able to explain the benefits of using a JavaScript framework or library
- understand patterns in a JavaScript framework or library
- know various CSS/JS frameworks or libraries

Skills: At completion of the course candidates will be able to

- use jQuery Ajax functions to local files, external web services, and self-made web services (JSON and XML)
- use Bootstrap as a CSS framework for a website
- use a JavaScript framework or library

- use .NET/C# Web API to make a solution that returns the results of a server adapted to asynchronous calls for return of JSON/XML

General competence: At completion of the course candidates will be able to

- use established CSS and JavaScript frameworks to develop web applications (.NET/C#) that are based on asynchronous calls.

Teaching and learning methods

The course is taught over one semester with lectures and exercises.

Recommended workload

Participation in lectures and tutorials – 48 hours

Self-study – 50 hours

Independent exercises and practical work individually or in groups – 50 hours

Examination and preparing for the examination – 52 hours

Total recommended workload – 200 hours

Technology and tools

- HTML and CSS, jQuery/JavaScript: Any HTML editor, for instance Brackets
- .NET/C#: Visual Studio 2013 or later edition, Express for Web/Professional/Community

Learning material/Syllabus

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. The information can also be found on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Assessment

Assessment is based on an individual presentation portfolio (100%). The presentation portfolio is composed of assignments the candidates have worked on in the course, and is to be submitted in accordance with specifications handed out by the course leader. The presentation portfolio should contain two contributions.

The specifications for the presentation portfolio are handed out approx. one and a half weeks before submission.

Grading scale: A – F with A as the best grade and E as the lowest pass grade. F means failed.

Assessment criteria

See Learning outcome

2.7 IS5200 Business Intelligence

Norwegian name: Business Intelligence

ECTS credits: 7.5

Area of study: Technology/IT

Language of instruction: English

Programme: Mandatory course in Bachelor in IT - E-Business, optional course in Bachelor in Digital Marketing and in Bachelor in IT – Interactive Design

Required prerequisites: None

Recommended prerequisites: Databases

Semester: The course is taught in the 5th semester (autumn)

Course leader: Wanda Presthus

Course outline

Business Intelligence (BI) gives a thorough introduction to the way data can be interpreted so as to lead to improved decisions, and how this can create added value for businesses. The course comprises theory as well as the use of end user tools for reporting and dashboards.

Learning outcome

Knowledge: At completion of the course candidates will

- know central BI concepts (process, tools, product)
- be able to describe the development of BI
- be able to describe how BI can lead to better decisions in businesses

Skills: At completion of the course candidates will

- be able to assess various types of end user tools
- have gained experience with reporting, analysis and visualisation

Competence: At completion of the course candidates will be able to

- understand how BI can create value in an innovative way
- critically assess a company's use of BI end user tools
- recognise ethical issues

Teaching and learning methods

The course is taught over one semester with lectures and exercises.

Recommended workload

Participation in lectures and tutorials – 44 hours

Self-study – 90 hours

Independent work and practical work individually or in groups – 63 hours

Examination and preparing for the examination – 3 hours

Total recommended workload – 200 hours

Technology and tools

A tool to produce end user Business Intelligence products

Learning material/Syllabus

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. The information is also available on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Coursework requirements

None

Assessment

Assessment is based on an individual written examination lasting 3 hours. No aids permitted.

Grading scale: A – F with A as the best grade and E as the lowest pass grade. F means failed.

Assessment criteria

See Learning outcome

2.8 PRO300 Virtual Reality Project

Norwegian name:	Virtual Reality-prosjekt
ECTS credits:	7.5
Area of study:	Technology/IT
Language of instruction:	English
Programme:	Optional course in Bachelor in IT – Programming; Bachelor in IT – Game Programming; Bachelor in IT – Game Design; Bachelor in IT – 3D Graphics; Bachelor in IT – Interactive Design; Bachelor in IT – Intelligent Systems
Required prerequisites:	Basic qualifications in programming, interaction, game or concept development, or 3D design
Recommended prerequisites:	As above
Semester:	The course is taught in the 5th semester (Autumn)
Course leader:	Kim Baumann Larsen

Course outline

The Virtual Reality Project is a cross-disciplinary course where the participating students have different study programme backgrounds. The purpose of the project is to develop interactive virtual reality applications for games, art or visualisation. The students will make

concepts, design and create interactive Virtual Reality solutions, and thereby understand the technological frames in use.

Learning outcome

Knowledge: At completion of the course candidates will

- know the machine and software platforms for Virtual Reality
- know the platform requirements for different Virtual Reality solutions
- know the possibilities and limitations with Virtual Reality
- know the demands for achieving the largest possible presence in a Virtual Reality solution
- know basic principles for storytelling for interactive Virtual Reality

Skills: At completion of the course candidates will be able to

- draft and plan an interactive Virtual Reality concept for games, art or visualisation
- make prototypes for different platforms
- design and implement an interactive Virtual Reality experience for a chosen platform
- integrate 3D models, sound elements and interaction points into a holistic Virtual Reality experience for a chosen platform

General competence: At completion of the course candidates will be able to

- evaluate and create an optimal Virtual Reality solution for a chosen platform
- evaluate different Virtual Reality platforms and the possibility and limitations of solutions

Teaching and learning methods

Lectures and exercises, and one cross-disciplinary project in which students participate with their different study programme backgrounds either in programming, interaction, games/concept development, or 3D design.

Recommended workload

Participation in lectures and tutorials – 25 hours

Self-study – 80 hours

Independent preparation for presentations or discussions in class – 5 hours

Student work with projects, productions, assignments etc. – 20 hours

Independent exercises, lab work, practical work individually or in groups – 70 hours

Total recommended workload – 200 hours

Technology and tools

HTML editor

Learning material/Syllabus

Updated information on required reading and other learning material is posted per programme on our electronic learning platform before the semester starts. The information is also available on our website.

In addition to literature and other learning material, scheduled teaching and other scheduled learning activities are part of the syllabus.

Coursework requirements

None

Assessment

Assessment is based on a combined examination consisting of the following elements:

- A group project examination (60%) where the groups submit the results of the project they have been working with in the course
- A group written examination (20%) consisting of a group report describing how the project was carried out, as well as reflections in connection with the work (a process document). The report should have a length of 3000-5000 words. The specifications of requirements for the report are handed out three weeks before submission.
- A group oral examination (20%) in which the groups present the project result and the process. The oral examination lasts approx. 25 minutes.

Grading scale: A-F with A as the best grade and E as the lowest pass grade. F means failed.