# PBA Web Development

## Curriculum 2017



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## 1 Programme structure

			1st year of study	2nd year of study
Core areas of study	Web development Back end (bridging course) Back end (CTS) or Front end programming (10 ECTS)		-10 ECTS	
	Development environments (10 ECTS) Databases (10 ECTS)		10 ECTS 10 ECTS	
	Interface design (10 ECTS)		10 ECTS	
Elective educational components			20 ECTS	
Internship				15 ECTS
Bachelor's degree project				15 ECTS
Total ECTS credits			60 ECTS	30 ECTS

### 2 Core areas of study

The study programme covers the following core areas of study

- Web development (bridging course),
  - Back end programming (10 ECTS) or
  - Front end programming (10 ECTS)
- Development environments (10 ECTS)
- Databases (10 ECTS)
- Interface design (10 ECTS)

40 ECTS credits total

#### 2.1 Core area: web programming (bridging course), back end programming

#### Contents

The purpose of this core area is to develop students' competencies to develop contemporary web applications using programming paradigms and taking advantage of current, standardised protocols and the possibilities of the client/server model.

#### **ECTS credits**

10 ECTS

#### Learning outcomes

#### Knowledge

Upon completion of the course, students should have acquired knowledge about:

• Design patterns

- Fundamental protocols of the World Wide Web
- The advantages and limitations of client/server architecture.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Create web-based programs
- Apply basic programming principles
- Use web APIs
- Document program structures.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

- Analyse a development request with a view to constructing a web-based application
- Select and apply suitable programming technologies for developing web-based applications mainly focusing on the server side.

#### 2.2 Core area: Web development (bridging course), front end programming

#### Contents

The purpose of this core area is to develop students' competencies to develop contemporary web applications using programming paradigms and taking advantage of current, standardised protocols and the possibilities of the client/server model. Furthermore, students should develop an understanding of basic design and visual communication. This core area should also enable students to design simple user interfaces using aesthetic and communicative principles.

#### **ECTS credits**

10 ECTS

#### Learning outcomes

#### Knowledge

Upon completion of the course, students should have acquired knowledge about:

- Fundamental protocols of the World Wide Web
- Advantages and limitations of client/server architecture
- Particular characteristics, weaknesses and strengths of different media
- Communication strategies.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Program and implement a dynamic web application
- Master basic design principles
- Apply theories on user friendliness and the skills to plan and conduct user tests
- Document program structures.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

• Analyse a development request with a view to constructing a web-based application

• Select and apply suitable programming technologies for developing web-based applications — mainly focusing on the client side.

#### 2.3 Core area: Development environments

#### Contents

The purpose of this core area is to develop students' competencies in making a qualified choice of and applying a given development environment.

#### **ECTS credits**

10 ECTS

#### Learning outcomes

#### Knowledge

Upon completion of the course, students should have acquired knowledge about:

- Integrated development environments (IDE) and their advantages and limitations
- Common programming languages in a web context
- Quality assurance and version control of applications in a web context
- Types of content management systems and frameworks and their suitability in a web context
- Criteria for selection of Content Management Systems or frameworks
- Selection of relevant database technology for developing applications in a web context.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Apply Content Management Systems or frameworks for developing applications in a web context
- Use an integrated development environment when developing applications in a web context.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

 Select a Content Management System or framework for developing applications for a given development assignment.

#### 2.4 Core area: Databases

#### Contents

The purpose of this core area is to develop students' competencies in analysing and applying relevant data-processing models.

#### **ECTS credits**

10 ECTS

Learning outcomes Knowledge

Upon completion of the course, students should have acquired knowledge about:

- At least one widely-used modelling language for data modelling
- Distributed databases and their prevalence and use in web contexts
- Describing problems concerning data exchange and the use of data formats in developing in web contexts.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Apply data models for development and maintenance in web contexts
- Apply complex database queries
- Apply transactions
- Embed business logic in the database layer
- Use data formats for data integration.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

- Analyse and select the tasks that would be suitably placed in the database layer and those that should be placed in the application layer
- Analyse and select a database technology/technologies that will resolve a given development task in a web context suitably.

#### 2.5 Core area: Interface design

#### Contents

The purpose of this core area is to develop students' competencies to enter complex usage scenarios and independently take part in the design process concerning the design of complex user interfaces.

#### **ECTS credits**

10 ECTS

#### Learning outcomes

#### Knowledge

Upon completion of the course, students should have acquired knowledge about:

- Common interface design development methods
- Human-computer interaction
- Communication theory.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Create convenient user interfaces adapted to relevant target groups based on the theory and methods of the relevant subject area
- Apply design methods pertaining to visual design, interaction design and information architecture when designing user interfaces, including prototyping
- Work on the development of communications solutions across platforms and media.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

- Analyse choices of devices and effects in user interfaces and situate these choices in a context
- Manage design processes based on analysis and planning
- Take part in complex usage situations and independently manage
- The design process when designing complex user interfaces.

## 3 Compulsory educational components within the core areas of the study programme

The study programme's compulsory educational elements

- 1. Web development (bridging course),
  - a. Back end programming (10 ECTS) or
  - b. Front end programming (10 ECTS)
- 2. Development environments (10 ECTS)
- 3. Databases (10 ECTS)
- 4. Interface design (10 ECTS)

#### 40 ECTS credits total

The four compulsory educational components are equivalent to the four core areas of study, have the same name, contents, are worth the same number of ECTS credits and have the same learning objectives.

The four compulsory educational components are all finalised by examination.

#### Assessment

Each examination is assessed and graded according to the 7-point grading scale and is worth 10 ECTS credits.

The learning objectives for the educational component are identical to the learning objectives for the examination.

For the examination type and exam procedure, please see the institutional section of this Curriculum.

## 4 Number of examinations for the compulsory educational components

The four compulsory educational components are each finalised by a single examination. See the examinations for the study programme in the "Examination schedule" section.

ECTS credits for the core areas and the compulsory educational components are shown in the schedule below.

Compulsory educational	Web development	Development	Databases	Interface	
components	(bridging course),	environments		design	
	Back end				
	programming or				
	back				

	Front end programming				
Core areas of study					
Web development (bridging course), back end programming or front end programming	10 ECTS				10 ECTS
Development environments		10 ECTS			10 ECTS
Databases			10 ECTS		10 ECTS
Interface design				10 ECTS	10 ECTS
Total ECTS credits	10 ECTS	10 ECTS	10 ECTS	10 ECTS	40 ECTS

### 5 Internship

The internship is organised in order to contributes, in combination with the other elements of the study programme, to the student's development of practical competencies. The purpose of the internship is to enable the student to apply the methods, theories and tools acquired during the course of the study programme in the solution of specific, practical tasks in web development.

#### **ECTS credits**

15 ECTS

## Learning outcomes

#### Knowledge

Upon completion of the course, students should have acquired knowledge about:

• Daily operations in the whole of the internship host company.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Apply versatile technical and analytical working methods related to the occupation
- Evaluate practical problems and propose possible solutions
- Structure and plan daily tasks relevant to the occupation
- Communicate and convey practical problems and issues and well-argued solution proposals.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

- Manage the practical and discipline-related situations of the occupation
- Acquire new knowledge, skills and competencies related to the occupation
- Take a professional approach to professional and multidisciplinary collaboration with others.

The internship is finalised by examination.

The learning objectives for the educational component are identical to the learning objectives for the examination.

For the examination type and exam procedure, please see the institutional section of this Curriculum.

## 6 Bachelor's degree project

#### **ECTS credits**

15 ECTS

#### Requirements for the bachelor's degree project

In the bachelor's degree project, the student must demonstrate the ability to process a complex, practise-related problem related to a specific web development task in an analytical and methodical way. The problem statement, which must be central to the education and the profession, must be formulated by the student, in collaboration with a private or public company or business if possible. The educational institution must approve the problem statement.

The student must submit a project report and in some cases also a product.

The project report, which makes up the written element of the examination, must as a minimum contain the following:

- Cover page with title
- Contents
- Introduction including problem statement
- Research method
- Analysis
- Solution proposals
- Conclusion
- Reference list (including all sources that are referred to in the project)
- Appendix (only including appendices that are central to the report).

The maximum allowed length of the report is 20 standard pages + 20 standard pages per student.

The cover page, table of contents, reference list and appendices are not included in the required number of pages. Appendices are not assessed.

One standard page is 2,400 characters including spaces and foot notes.

#### Writing and spelling skills

Writing and spelling skills will be assessed as part of the assessment and grading of the final degree project. The assessment is expressed as an overall assessment of the professional and academic content as well as the student's spelling and writing skills.

Students may apply for an exemption from the requirement that spelling and writing skills form part of the assessment criteria if the application is supported by documentary evidence of a specific, relevant physical or mental impairment The application should be submitted to

the study programme and directed to the attention of the programme director not later than 4 weeks before the exam is to be held.

#### Learning outcomes

The bachelor's degree project is to demonstrate that the student has achieved the expected level of graduate competence, please see Schedule 1 to Ministerial Order no. 353 of 7 April 2015 on the Bachelor's Degree Programme in Web Development.

#### Knowledge

Upon completion of the course, graduates should have acquired knowledge of:

- The formal and de facto standardisation of the World Wide Web
- The Word Wide Web's standards as a platform for applications
- Development environments for web development
- Content Management Systems
- The role of web applications in society and its development, and
- Common development methods in web development, and graduates should be able to reflect on the suitability of such methods for different development scenarios.

#### Skills

Upon completion of the course, students should have acquired the skills to:

- Plan and develop applications based on specific development requests
- Evaluate and select a suitable programming language for the performance of development requests
- Evaluate and select a suitable database system to ensure data and application persistence
- Create user interfaces adapted to relevant target groups based on the theory and methods of the relevant subject area
- Create user interfaces that make use of the World Wide Web's particular possibilities in terms of design and aesthetics
- Prepare documentation adapted to the target audience and to the extent of the project of the functionality and development process of a project, and
- Use a suitable development environment to perform the development process.

#### Competencies

Upon completion of the course, students should have acquired the competencies to:

- Handle complex situations aimed for progression in web development
- Take a professional approach to disciplinary and multidisciplinary collaboration with others.
- Identify their learning needs and structure their learning in different learning environments.

#### Assessment

The examination is externally assessed and will be graded according to the 7-point grading scale.

The exam is made up of a project and an oral examination. The student will receive a single, joint grade for the written project and the oral examination. The exam cannot take place until the internship exam and the other exams of the study programme have been passed.

For the examination type and exam procedure, please see the institutional section of this Curriculum.

## 7 Examination schedule

Overview of all examinations and their scheduled semesters

Examination	90 ECTS credits distributed across exams	Assessment
Possible academic aptitude	-	Pass/fail
examination1		
Web development (bridging course),	10	7-point grading scale
Back end programming (10 ECTS) or		
Front end programming (10 ECTS)		
Development environments (10 ECTS)	10	7-point grading scale
Databases (10 ECTS)	10	7-point grading scale
Interface design (10 ECTS)	10	7-point grading scale
Elective component examination(s)2	20	7-point grading scale
Internship examination	15	7-point grading scale
Bachelor's degree project	15	7-point grading scale

## 8 Credit transfer

Passed educational components are equivalent to corresponding educational components offered by other educational institutions providing the programme.

The student has a duty to inform the educational institution about educational components that were studied and passed at other Danish or foreign higher education institutions and to inform about occupations that can be assumed to earn the student transfer credit. The educational institution will grant transfer credit in each individual case based on completed/passed educational components and occupations that match course units, parts of the study programme or parts of the internship. The decision to award transfer credit is based on an assessment of academic elements.

### 8.1 Pre-approved credit transfer

The student can apply for pre-approval of credit transfer. In cases of pre-approved credit transfer of studies in Denmark or abroad, the student is under a duty to document completion of the pre-approved educational components, upon completion of the study-abroad period. When applying for pre-approval, the student must consent to allow the

<sup>1.</sup> If an academic aptitude examination is held, the examination will be described in the institutional section of this Curriculum.

<sup>2.</sup> The elective component(s) and the related examination(s) are described in the institutional section of this Curriculum.

educational institution to collect any required information upon the student's completion of the study-abroad period.

For the final approval of pre-approved credit transfer, the educational component is considered completed if it is passed in accordance with the regulations applying to the study programme.

#### 8.2 Credit transfer agreements

None

## 9 Admission

If all applicants applying for the education cannot be admitted for reasons of capacity, one or more of the following criteria will be considered important (not listed in order of priority):

- The grade average from the completed education that allows the applicant to apply for admission to the study programme
- The applicant's previous experience relevant to the study programme
- A personal talk where the applicant's motivation and academic ability will be identified.

## **10 Exemption**

The educational institution may grant exemption from those rules in the national section of this Curriculum that were laid down solely by the educational institutions, when exemption is substantiated by exceptional circumstances. The educational institutions co-operate on a uniform exemption practice.

## **11 Effective date and transition regulations**

This institutional section of this Curriculum comes into effect on 01 August 2015 and applies to all students who are and will be registered for the programme and to all examinations commenced on said date or thereafter.

Any transition regulations applying to students registered for studies prior to August 2015 can be found in the institutional section of this Curriculum.

## Institutional section 2017



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## **1** Exam Overview

Time Frame	Exam	ECTS	Internal/External	Evaluation
		Credits		
1st Year	Web Development (bridging modules), Backend programming (for multimedia designers) Frontend programming (for software developers)	10	External	7 – point grading scale
1st Year	Development Environments	10	Internal	7 – point grading scale
1st Year	Databases	10	Internal	7 – point grading scale
1st Year	Interface Design	10	External	7 – point grading scale
1st Year	Elective courses	20	Internal	7 – point grading scale
3rd Semester	Internship	15	Internal	7 – point grading scale
3rd Semester	Bachelor project	15	External	7 – point grading scale

Overview of examinations and time frame:

Information about time and place for the examinations will be posted on the official platform prior to the exam

## 2 Scope and criteria for examinations

## 2.1 Exam: Web Development, Backend programming (bridging module for multimedia designers)

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (e.g. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree program after meeting with the student in question, and will be based on an individual assessment.

#### The written project, on which the examination and assessment are based, must:

• Meet all formal requirements, see below

• Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section
- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 15 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed externally according to the 7-point scale

One individual grade is given based on an overall evaluation of the written project and oral presentation.

30 minutes is allotted to each student including assessment and announcement of grade.

The exam amounts to 10 ECTS credits

#### Assessment criteria

Assessment criteria for the exam = learning objectives for the compulsory educational component: Web Development, Backend programming

Learning objectives appear in the joint national part of the curriculum.

#### **Time Frame**

The exam takes place during the first year of study.

Further information regarding time and place can be found on EASV-Sharepoint.

#### Exam language

Danish or English

## 2.2 Exam: Web Development, Frontend programming (bridging module for software developers)

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (e.g. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree programme after meeting with the student in question, and will be based on an individual assessment.

The written project, on which the examination and assessment are based, must:

- Meet all formal requirements, see below
- Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section
- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 15 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed externally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the written project and oral presentation.

30 minutes is allotted to each student including assessment and announcement of grade.

The exam amounts to 10 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the compulsory educational component: Web Development, Frontend programming

Learning objectives appear in the joint national part of the curriculum.

#### Time Frame

The exam takes place during the first year of study. Further information regarding time and place can be found on EASV-Sharepoint.

#### Exam language

Danish or English

#### 2.3 Exam: Development environments

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (i.e. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree programme after meeting with the student in question, and will be based on an individual assessment.

The written project, on which the examination and assessment are based, must:

- Meet all formal requirements, see below
- Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section
- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 15 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed internally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the written project and oral presentation.

30 minutes is allotted to each student including assessment and announcement of grade.

The exam amounts to 10 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the compulsory educational component: Web Development, Development Environments

Learning objectives appear in the joint national part of the curriculum.

#### **Time Frame**

The exam takes place during the first year of study.

Further information regarding time and place can be found on EASV-Sharepoint.

#### Exam language

Danish or English

#### 2.4 Exam: Databases

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (i.e. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree programme after meeting with the student in question, and will be based on an individual assessment.

The written project, on which the examination and assessment are based, must:

- Meet all formal requirements, see below
- Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section

- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 15 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed internally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the written project and oral presentation.

30 minutes is allotted to each student including assessment and announcement of grade.

The exam amounts to 10 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the compulsory educational component: Web Development, Databases

Learning objectives appear in the joint national part of the curriculum.

#### **Time Frame**

The exam takes place during the first year of study.

Further information regarding time and place can be found on EASV-Sharepoint.

#### Exam language

Danish or English

#### 2.5 Exam: Interface Design

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (e.g. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree programme after meeting with the student in question, and will be based on an individual assessment.

The written project, on which the examination and assessment are based, must:

• Meet all formal requirements, see below

• Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following components should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section
- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 10 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

Or If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed externally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the written project and oral presentation.

30 minutes is allotted to each student including assessment and announcement of grade.

The exam amounts to 10 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the compulsory educational component: Web Development, Interface Design

Learning objectives appear in the joint national part of the curriculum.

#### **Time Frame**

The exam takes place during the first year of study.

Further information regarding time and place can be found on EASV-Sharepoint.

#### Exam language

Danish or English

## 3 Elective modules

#### Content

The elective modules offer students the opportunity to enhance their individual profile and professional competencies relating to areas of Web development. This is achieved through specialisation and academic immersion within the programme's subject areas.

The elective modules are planned by the individual programme and adjusted annually. See EASV-Sharepoint.

Students may also arrange their own elective programme module as a practical and/or theoretical course of study. This must be approved by the head of the department.

ECTS credits: The elective modules can be offered with the following ECTS credits: 5, 10 and 20 ECTS.

#### Learning objectives

#### Knowledge

Upon completion of the module, students should have acquired knowledge about:

- The chosen elective's theory and practice
- The chosen elective's relevance to web development in theory and practice

#### Skills

Upon completion of the module, students should have acquired the skills to:

- Select, describe and undertake a liturature search of a selected it problem
- Discuss the process and analytical skills related to the selected topic
- Assess problems and propose possible solutions relative to the selected topics
- Convey significant results

#### Competencies

Upon completion of the module, students should have acquired the competencies to:

- Independently familiarize themselves with new topics within the subject's theory or practice
- Relate to and set into perspective the elective areas to the programme's other subject areas.

#### Time Frame:

The elective programme modules are in the first year of study

#### 3.1 Exam: Elective Programme Module(s)

#### Prerequisites for the exam

Mandatory participation requirements must be met in order to be qualified to take the exam. These requirements are described on The official platform. Failure to meet these requirements without a valid reason (e.g. illness, maternity leave or exceptional circumstances) is considered to indicate a lack of academic activity and can lead to suspension of any state education grant. Decisions on the consequences of lack of participation are made by the student counsellor in consultation with the head of the degree

programme after meeting with the student in question, and will be based on an individual assessment.

The written project, on which the examination and assessment are based, must:

- Meet all formal requirements, see below
- Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written project report

The following should be included:

- Front page with title of the report
- Table of contents
- Introduction, including main issues, problem statement and approaches
- Main section
- Conclusion
- Bibliography (including all sources referred to in the report)
- Appendices (including only those documents that are central to the report)

The maximum number of pages for the project is 15 standard pages. A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the written project. It is assessed internally according to the 7-point scale.

30 minutes is allotted to each student including assessment and announcement of grade.

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the elective programme module

#### Exam language

Danish or English

### 4 Internship

#### Requirements and expectations for internship completion

In the internship the student works with subject relevant issues within the programme's core areas of study 1 and obtains knowledge of the relevant functions of the profession. The internship can take place in one or more companies.

The internship may be planned to allow for both flexibility and differentiation. It may form the basis for the student's Bachelor project.

Based on the learning objectives for the internship, described in the joint national part of the curriculum, the student and supervisor/contactperson together define the concrete objectives for the student's internship.

Correlation between the theoretical teaching and the internship is the basis for the student's learning objectives for the internship.

The internship period is equivalent to a full time job, in regards to the requirements for work hours, effort, commitment and flexibility, which the graduate web developer can expect to meet in his first job.

1. Jf. LEP-BEK § 10, stk. 2, nr. 1), § 11, stk. 2, nr. 1) og § 12, stk. 2, nr. 1).

#### 4.1 Exam: Internship

#### Prerequisites for the exam

The internship report, on which the examination and assessment are based, must:

- Meet all formal requirements, see below
- Be submitted on time, see examination schedule available on The official platform.

If one or more of the participation requirements is not met, or the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

#### Formal requirements for the written internship report

An internship report must be submitted.

The internship report, which constitutes the written part of the exam, must at a minimum contain:

- Front page with name, internship company, institution, internship period
- Preface
- Introduction
- Description of the business (its main activities, number of employees, their profession, etc.)
- Reflection on the concrete learning objectives achieved
- Description of concrete tasks
- Conclusion
- Company reference
- Bibliography, if any (including all sources that have been referenced)
- Any further appendices (only include appendices essential to the report)

The maximum number of pages for the internship report is 10 standard pages, exclusive appendices.

A standard page is defined as 2400 characters, including spaces and footnotes, but excluding the front page, table of contents, bibliography and appendices. Appendices are not included in the grading evaluation.

If one or more of these prerequisites is not met, the student will not be allowed to take the exam and it is counted as one exam attempt.

#### The examination

The exam is an individual oral exam based on the internship report. It is assessed internally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the internship report and oral presentation.

20 minutes is allotted to each student including assessment and announcement of grade.

The exam starts with a 5 minute presentation by the student based on the internship, followed by a 15 minute oral examination, including assessment and announcement of grade.

The exam amounts to 15 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the Internship

#### **Time Frame**

The exam takes place after completion of the internship.

Further information regarding time and place, and hand-in of internship report can be found on EASV-Sharepoint.

#### Exam language

Danish or English

## 5 Bachelor project

See the joint joint national part of the curriculum for a description of the requirements for the bachelor project and the learning objectives for Bachelor of web development

#### Prerequisites for the exam

The written project, on which the examination and assessment are based, must:

- Meet all formal requirements for the bachelor's degree project, see the national joint section of the curriculum
- Be submitted on time, see examination schedule available on The official platform.

If the written project, which comprises the written part of the exam, is not submitted correctly the student will not be allowed to take the exam, and one examination attempt will have been used.

The examination can only take place after completion of the internship examination, and all of the programme's other examinations have been passed.

#### The examination

The exam is an individual oral exam based on the written group project. It is assessed externally according to the 7-point scale.

One individual grade is given based on an overall evaluation of the written project and oral presentation.

Groups may be no larger than 4 students

The project is presented by the project group, 10 min. pr. student.This is followed by an examination of the members of the group.30 minutes is allotted to each student, including assessment and announcement of grade.

The exam amounts to 15 ECTS credits

#### **Evaluation criteria**

Evaluation criteria for the exam = learning objectives for the Bachelor project, see the joint national part of the curriculum.

#### **Time Frame**

The exam takes place at the end of the 3rd semester. Further information regarding time and place can be found on EASV-Sharepoint.

#### **Exam language**

Danish or English

#### 6 Program modules that can be taken abroad

The student can apply for pre-approved credit, and with the institution's approval, take each module abroad.

In the case of pre-approval of study abroad, the student must document completion of the approved program's courses, at the end of the study abroad period. The student must in connection with the pre-approval, consent that the institution can collect the necessary information, at the end of the study abroad period.

With the approval of pre-approved credit, the program course is considered completed if it is passed in compliance with the rules for the program.

### 7 Teaching methods

The Multimedia Designer Program applies varied teaching methods, which together support the above-mentioned and promote the achievement of the learning objectives, described in the curriculum.

The main emphasize of the teaching methods is dialog based classroom teaching, assignments and group projects. However, working in study groups, individual assignments and projects, group and class presentations, interdisciplinary cases and much more are also included.

All of these activities ensure that the program always sets clear objectives and expectations for the learning activities.

#### 8 Credits for elective educational elements

Any elective educational element that has been passed is considered to be equivalent to the corresponding educational element offered by other educational institutions offering the education.

The student is to apply for prior approval if credit is wished for educational elements that are not included in the education.

## 9 Language

English is the language used in the international multimediadesign and communication programme. Skills in other languages are not required.

#### 9.1 Examinations

Examinations are to be submitted/presented in understandable English or Danish. Students with other native languages can seek exemption from the fact that formulation and spelling skills can influence the evaluation of the final examination project or any exam for which the curriculum specifies that such skills are included in the evaluation. Application for exemption should be sent to the head of department at least four weeks prior to the examination.

Participation requirements can also be a stipulation or prerequisite for examinations. Attendance can also be compulsory for certain of the elements in the course.

Participation and attendance requirements that are prerequisites for an examination can be found in the examination specifications of the individual course.

## 10 Criteria for evaluating student activity and participation requirements

To facilitate the teaching forms used, students are required to participate actively in relevant activities, including the submission and presentation of assignments and projects.

#### 10.1 Definition of student activity and participation requirements

Enrolment can be terminated for students who have not participated actively in their studies. Active participation is defined as follows:

The student has:

- Participated in at least two different examinations (within the last 12 months)
- Passed at least one examination (within the last 12 months)
- Lived up to the participation requirements for the education, including group work, joint projects, distance learning, etc. as can be seen in the description of participation requirements and submission of reports described for the examinations.
- Submitted the assignments, reports, etc. which are a prerequisite for an examination in accordance with the curriculum, with a trustworthy content. This includes not having submitted material for which others have copyright.
- Attended activities with compulsory attendance as specified in the curriculum.

Rules about the examinations in which the student according to the Examination Order must have participated and passed prior to the end of the 2nd semester, as well as rules about deadlines for completing the education as specified the educational order, will still apply.

#### 10.2 The consequences of absent student activity

Failure to meet one or a few of the criteria for student activity can lead to termination of the student's state educational grant (SU).

Failure to meet one or more of the criteria can lead to the termination of enrolment in the education, cf. below.

Periods in which the student is not active due to leave of absence, maternity leave, adoption, documented illness or military service are not included in the above. The student must, if so required, supply documentation for such conditions.

#### **10.3 Termination of enrolment**

Lack of student activity can lead to the termination of enrolment in the education.

In exceptional circumstances, exceptions can be made from the rule of non-compliance of study activities. Applications to be exempted shall be send to the head of department.

Prior to termination of enrolment in the education, the student is to be sent a written notice that points out the above-mentioned rules. This notice also specifies that the student has 14 days in which to submit documentation for periods with a lack of student activity that the student claims should not lead to expulsion, and specifies as well a deadline for seeking exemption.

If the student has not reacted within this period of time, he/she is expelled from the education. If the student requests that he/she not be expelled, this request will have a delaying effect until the head of department as decided upon the matter.

The student is entitled to submit a complaint to the head of department about a decision that has been made two weeks at the latest after being informed of the decision. This complaint will have a delaying effect. If the head of department maintains the decision, the student can complain to the Ministry of Education within two weeks after receiving the complaint, as far as legal issues are involved.

## **11 Re-examinations**

#### 11.1 Re-examinations due to illness

A student who has not been able to sit an examination due to documented illness or other unforeseen circumstance is given the opportunity to sit a re-examination as quickly as possible. In the case of an examination taking place at the end of the last examination period, the student is given the opportunity to sit the examination in the same examination period or immediately thereafter.

This examination can be identical to the next ordinary examination. It is the student's responsibility to investigate when the re-examination will be held.

Information about time and place for these re-examinations can be found the official platform for the programme.

Illness must be documented by a medical certificate received by the institution three days at the latest after the examination has been conducted. A student who becomes acutely ill during an examination must document that he/she has been ill on the day in question.

If illness is not documented according to the above rules, the examination will count as one examination attempt spent by the student.

Any costs for the medical certificate are the responsibility of the student.

#### 11.2 Re-examinations due to failing or non-attendance

By not passing or by not attending the examination, the student is automatically registered to sit the re- examination, provided that the student has not spent all three examination attempts. The re-examination can be identical with the next ordinary examination.

It is the student's responsibility to investigate when the re-examination will be held. Information about time and place for these re-examinations can be found the official platform for the programme.

Exemption from the above can be given in the case of extraordinary conditions, including documented disability.

### 12 Use of aids

Any rules for restrictions in the use of aids will be made clear in the specifications for the individual examination.

## **13** Special examination conditions

The student can apply for special examination conditions when warranted by physical or mental impairment. The application should be submitted to the head of department at least four weeks prior to the date of the examination. An exemption from this deadline can be given in the case of suddenly occurring health issues.

The application must be accompanied by a medical certificate, a statement from e.g. a body dealing with speech, hearing or sight impairment or dyslexia, or other forms of documentation certifying serious health issues or relevant functional impairment.

### 14 Cheating offences in exams

When submitting written material the student certifies by his/her signature that the material has been produced without undue assistance.

#### 14.1 Using one's own work and that of others - plagiarism

Cheating in exams through plagiarism comprises instances where a written answer appears to be completely or partially produced personally by the student him-/herself, but:

- Comprises identical or almost identical rendering of the wording or work of others, without clearly identifying this using quotation marks, italics, indentation or other clear indications stating the source of the material, cf. the educational institution's requirements to written work the official platform for the programme.
- Comprises major pieces of text with choice of words or formulations so close to that of another piece of writing that it is possible to determine through comparison that the text could not have been written without using the source in question
- Comprises the use of words or ideas of others without giving reference to the source in an appropriate manner
- Re-uses text and/or central ideas from the student's own previously assessed answers (self- plagiarism) without observing the provisions laid down in items 1 and 3 above.

#### 14.2 Disciplinary procedures

- for cheating offences and disruptive behaviour during exams

A student who sits an exam and who <u>beyond doubt</u> during the exam:

- Receives unauthorised help
- Helps another student answer a question in the exam
- Uses unauthorised materials and aid, or
- Exhibits disruptive behaviour

can be expelled from the exam by the head of department or whoever the head of department authorises to do so, or the examiners can agree to expel the student from the exam while it is taking place. In such cases the justification of the action is to be evaluated in connection with the subsequent decision.

If the disruptive behaviour is of a less serious nature, the educational institution will initially issue a warning.

#### 14.3 Presumed cheating

- at an exam, including plagiarism during and after the exam

If during or after an exam it is presumed that a student

- Has received or given unauthorised help
- Has presented the work of another person as his/her own (plagiarism), or
- Has used his/her own previously assessed work or parts thereof without referring to it (plagiarism)

this will be reported to the head of the degree programme.

#### 14.4 Investigation of cheating offences in exams, including plagiarism

#### Postponement of the exam

If the cheating offence concerns suspected plagiarism in a written report and/or answer that is to be used in the assessment of a subsequent oral exam, the head of department postpones the exam, unless the issue can be investigated prior to the date set for the exam.

Form and content of the report

Reporting must be made without undue delay. The report must be accompanied by a written description of the breach, containing information that can identify the individual(s)s reported on, as well as a brief summary of and documentation substantiating the case. In the event of repeated offences for one or more of the persons involved, this must be stated.

When reporting on plagiarism, the plagiarised parts must be marked with clear reference to the sources of plagiarism. Similarly, the plagiarised text must be marked in the source text.

#### Involving the student: hearing of the party/parties

The head of department decides whether the hearing of the student is to be oral, in writing, or a combination thereof.

For the oral hearing, the student is summoned to a clarifying interview, in which documentation substantiating the suspected cheating in the exam is presented to the student and in which the student is asked to present his/her point of view. The student has the right to be accompanied by a person of his/her own choice.

For the written hearing, the documentation substantiating the presumed cheating in the exam is sent to the student with a request for a written response to the accusation

#### 14.5 Penalties for cheating offences and disruptive behaviour during exams

If clarification of the issue confirms the presumed cheating offence, and the action has influenced or would influence the exam assessment, the head of department will expel the student from the exam.

In less serious cases, a warning is first given.

In more serious cases, the head of department can expel the student for short or long periods of time. In such cases the student receives a written warning to the effect that repeated offences could lead to permanent expulsion.

Expulsion according to the above terms will lead to cancellation of any grade that may have been granted for the exam in question, and the exam will count as one attempt.

The student cannot sit a re-examination and cannot sit the exam again until an exam is scheduled on ordinary terms as part of the degree programme.

During the period of expulsion the student is not allowed to attend classes or sit exams.

#### 14.6 Appeals

Decisions concerning expulsion due to a cheating offence at an exam, and that an attempt at an exam has been used, are final and cannot be appealed to a higher administrative authority.

Appeals concerning legal aspects (such as incapacity, hearings, appeal instructions, correct or incorrect interpretation of the Examination Order etc.) can be brought before the Danish

Agency for Higher Education and Educational Support. The complaint is forwarded to the educational institution in question, for the attention of the head of the degree programme. The head makes a statement on which the appellant must be given an opportunity to comment, normally within one week. The educational institution forwards the appeal, the statement and any comments that the appellant may have made to the Danish Agency for Higher Education and Educational Support.

Appeals must reach the educational institution no later than two weeks from the day that the appellant was notified of the decision.

## 15 Complaints about examinations and appeal decisions

#### 15.1 Complaints about exams

We recommend that the student ask the student counsellor for information about complaint procedures and guidance on how to prepare a complaint.

The rules governing complaints about exams can be found in Section 10 of the Examination Order. The Examination Order differentiates between two types of complaints:

- Complaints about the scope of the exam, the examination procedure itself and/or the assessment made
- Complaints about legal matters

These two types of complaints are dealt with differently.

#### 15.1.1 Complaints about the scope procedure and/or the assessment

The examinee can submit a written and substantiated complaint within two weeks after the assessment of the exam has been communicated in the usual way. The complaint can cover:

- The scope of the examination, including questions asked, assignments, etc. as well the examinations relation to the objectives and requirements of the programme
- The examination procedure
- The assessment

Complaints may be submitted about all examinations – written, oral and combinations hereof, as well as practical exams.

Complaints are to be sent to the head of the degree programme.

The complaint is sent immediately to the original examiners, i.e. the internal examiner and the external examiner for the examination in question. Their statement of response forms the basis for the institution's decision regarding academic issues. Two weeks are normally allowed for this response.

As soon as the examiners' response is available, the student issuing the complaint is given an opportunity to comment on the statements, normally with a one-week deadline.

The institution makes its decision based on the academic opinion of the examiners and the complainant's comments hereto.

The decision is to be communicated in writing and can:

- Offer the possibility of a new assessment (re-assessment). This applies to written exams only.
- Offer the possibility of a new exam (re-examination) with new examiners, or
- Reject the complaint

If the decision is to offer a re-assessment or re-examination, the head of department appoints new examiners. Re-assessment applies only to written exams for which material is available, as the new examiners cannot make a (re-)assessment of an oral examination and because the notes made by the original examiners are personal and cannot be disclosed.

If the decision is to offer reassessment or re-examination, the complainant must be informed of the fact that the re-assessment or re-examination may lead to a lower grade.

The student must accept the offer within a period of two weeks after the decision has been communicated. Acceptance can thereafter not be cancelled. If the student does not accept the offer within this period of time, there will be no re-assessment or re-examination.

The re-assessment or re-examination must take place as quickly as possible. In the case of re-assessment, all documentation shall be provided to the new examiners – the assignment, the answer, the complaint, the evaluations made by the original examiners – together with the complainant's comments and the educational institute's decisions.

The new examiners notify the educational institution of the outcome of their re-assessment and enclose a written statement that specifies the assessment and the reasons for it. Reassessments may result in a lower grade.

If the decision is to offer re-assessment or re-examination, the decision applies to all students whose examination suffers from the same defects as those referred to in the complaint. The complaint is sent to the head of department two weeks (14 calendar days) at the latest after the assessment of the exam concerned has been communicated. If the due date is on a public holiday, the due date will be the fist workday following the public holiday.

Exemption from this deadline can be given in the event of exceptional circumstances.

#### Appeals and complaints about appeal decisions

The complainant can submit the educational institution's decision to an appeals panel. The activities of the appeals panel are governed by the Public Administrations Act, which also includes issues of incapacity and confidentiality.

The appeal is to be sent to the head of the degree programme.

The appeal must be submitted two weeks at the latest after the decision has been communicated to the student. The same requirements as above for complaints (in writing, stating reasons, etc.) also apply to appeals.

The appeals panel consists of two authorised external examiners appointed by the chairman of the external examiners, a lecturer authorised to conduct examinations, and a student studying the subject area (the degree programme), both of which are appointed by the head of the degree programme.

The appeals panel makes decisions based on the material used by the educational institution in making its decision and the student's appeal, with reasons stated.

The appeals panel can:

- Offer the possibility of a new assessment with new examiners. This applies to written exams only.
- Offer the possibility of a new exam with new examiners, or
- Reject the appeal

If the decision is to offer reassessment or re-examination, the complainant must be informed of the fact that the re-assessment or re-examination may lead to a lower grade.

The student must accept the offer within a period of two weeks after the decision has been communicated. Acceptance can thereafter not be cancelled. If the student does not accept the offer within this period of time, there will be no re-assessment or re-examination.

The re-assessment or re-examination must take place as quickly as possible.

In the case of re-assessment, all documentation shall be provided to the appeals panel – the assignment, the answer, the complaint, the evaluations made by the original examiners – together with the complainant's comments and the educational institute's decisions.

The appeals panel must make its decision two months at the latest (in the case of spring semester exams three months) after the submission of the appeal.

The decision of the appeals panel is final, which means that the case cannot be brought before a higher administrative authority as far as the academic part of the complaint is concerned.

#### 15.1.2 Complaints about legal matters

Complaints about legal aspects of decisions made by examiners in connection with reassessments or re- examinations or in connection with decisions made by the appeals panel can be brought before the educational institution. The deadline for submitting such complaints is two weeks from the day the decision has been communicated to the complainant.

Complaints about legal aspects of decisions made by the institution according to the rules laid down by the Examination Order (e.g. incapacity, hearings, correct or incorrect interpretation of the Examination Order) can be submitted to the educational institution. The institution issues a statement and the complainant is normally given one week in which to respond with his/her comments. The institution forwards the complaint, the statement and any comments the complainant may have to the Danish Agency for Higher Education and Educational Support. Complaints must be submitted to the educational institution at the latest two weeks (14 calendar days) after the day on which the decision has been communicated to the complainant.

## **16 Exemptions**

The institute can grant exemptions from rules in this institution-specific section of the curriculum in cases where such exemption is justified due to exceptional circumstances. The institutions offering this education cooperate to ensure a uniform exemption practice.

## 17 Effective date and transition period

The institution-specific section of the curriculum is effective from 01.08.2017 and applies to all students who initiate their studies at EASV by 01.08.2017 or later.

Current students at the Academy will complete their studies according to the curriculum valid at the initiation of their studies.

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