

# Web Development 1st semester top-up programme

**Programme:**

Bachelor of WEB Development programme

**Semester:**

1<sup>st</sup> semester of top-up programme equal to 5th or 6th semester of a full bachelor degree programme.

**Pre-requisites:**

A foreign qualification similar to 2-2½ years computer science studies (experienced programmer or qualifications with multimedia design).

**Availability:**

Spring Semester (end January - June)

Autumn Semester (end August – January)

**Programme information for exchange (Learning Agreement):**

For a detailed course description kindly refer to the programme curriculum found under programme information on <http://zibat.dk/curriculums-ordinary-programmes/>

**Semester overview:**

	<i>Study Programme at the Receiving Institution</i>			
	<b>Planned period of the mobility: from [month/year] ..... to [month/year] .....</b>			
<b>Before the mobility</b>		<b>Component/course title</b> (as indicated in the course catalogue)	<b>Semester</b> [e.g. autumn/spring; term]	<b>Number of ECTS credits</b>
	WEB1	<b>Development environments (Mandatory)</b>	<b>Autumn/Spring</b>	<b>10</b>

	WEB1	<b>Web programming (bridging course), back end programming and front end programming (Mandatory)</b>	<b>Autumn/Spring</b>	<b>10</b>
	WEB1	<b>Interface Design (Mandatory)</b>	<b>Autumn/Spring</b>	<b>10</b>
				<b>Total: 30 ECTS</b>
<p>Web link to the course catalogue at the Receiving Institution describing the learning outcomes:</p> <p><a href="http://zibat.dk/curriculums-ordinary-programmes/">http://zibat.dk/curriculums-ordinary-programmes/</a></p>				

### Semester and Course Description:

<b>Component code (if any)</b>	<b>Component title at the Receiving Institution (as indicated in the course catalogue)</b>	<b>Course Component Description</b>	<b>Available Semester</b>	<b>Number of ECTS credits</b>
<b>WEB1</b>	<b>Development environments (Mandatory)</b>	<p>The purpose of this core area is to develop students' competencies in making a qualified choice of and applying a given development environment.</p> <p>Learning outcomes :</p> <p><b>Knowledge</b></p> <p>Upon completion of the course, students should have acquired knowledge about:</p> <ul style="list-style-type: none"> <li>• integrated development environments (IDE) and their advantages and limitations</li> <li>• common programming languages in a web context</li> <li>• quality assurance and version control of applications in a web context</li> <li>• types of content management systems and frameworks and their suitability in a web context</li> <li>• criteria for selection of Content Management Systems or frameworks</li> </ul>	Autumn + Spring	<b>10</b>

		<ul style="list-style-type: none"> <li>• selection of relevant database technology for developing applications in a web context.</li> </ul> <p><b>Skills</b> 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.</p> <p><b>Competencies</b> 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.</p> <p><b>Course contents</b> Development using Drupal. PHP, Moduls and frameworks. Umbraco CMS. Javascript</p>		
<b>WEB1</b>	<b>Web programming (bridging course), back end programming and front end programming (Mandatory)</b>	<p>Learning outcomes : <b>Backend</b></p> <p><b>Knowledge</b> 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.</p> <p><b>Skills</b> 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.</p> <p><b>Competencies</b></p>	Autumn + Spring	<b>10</b>

		<p>Upon completion of the course, students should have acquired the competencies to:</p> <ul style="list-style-type: none"> <li>• analyse a development request with a view to constructing a web-based application</li> <li>• select and apply suitable programming technologies for developing web-based applications — mainly focusing on the server side.</li> </ul> <p>Learning outcomes : <b>Frontend</b></p> <p><b>Knowledge</b>  Upon completion of the course, students should have acquired knowledge about:</p> <ul style="list-style-type: none"> <li>• fundamental protocols of the World Wide Web</li> <li>• advantages and limitations of client/server architecture</li> <li>• particular characteristics, weaknesses and strengths of different media</li> <li>• communication strategies.</li> </ul> <p><b>Skills</b>  Upon completion of the course, students should have acquired the skills to:</p> <ul style="list-style-type: none"> <li>• program and implement a dynamic web application</li> <li>• master basic design principles</li> <li>• apply theories on user friendliness and the skills to plan and conduct user tests</li> <li>• document program structures.</li> </ul> <p><b>Competencies</b>  Upon completion of the course, students should have acquired the competencies to:</p> <ul style="list-style-type: none"> <li>• analyse a development request with a view to constructing a web-based application</li> <li>• select and apply suitable programming technologies for developing web-based applications — mainly focusing on the client side.</li> </ul>		
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<b>WEB1</b>	<b>Interface Design</b> (Mandatory)	<p>Learning outcomes :</p> <p><b>Knowledge</b>  Upon completion of the course, students should have acquired knowledge about:</p> <ul style="list-style-type: none"> <li>• common interface design development methods</li> <li>• human-computer interaction</li> <li>• communication theory.</li> </ul> <p><b>Skills</b>  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</p> <ul style="list-style-type: none"> <li>• apply design methods pertaining to visual design, interaction design and information architecture when designing user interfaces, including prototyping</li> <li>• work on the development of communications solutions across platforms and media.</li> </ul> <p><b>Competencies</b>  Upon completion of the course, students should have acquired the competencies to:</p> <ul style="list-style-type: none"> <li>• analyse choices of devices and effects in user interfaces and situate these choices in a context</li> <li>• manage design processes based on analysis and planning</li> <li>• take part in complex usage situations and independently manage</li> <li>• the design process when designing complex user interfaces.</li> </ul> <p><b>Course contents:</b></p>	Autumn + Spring	<b>10</b>

		Methods, Personas, Feedback on Sketching (Wireframes, Mock-Ups, User Research), CRAP, Visual Design, Communication, Human-Computer Interaction		
				<b>TOTAL:30 ECTS</b>