

<b>Data Engineering</b>					
<b>Course Code</b> CIF61062	<b>Student Workload</b> 90 hours	<b>Credits</b> (according to ECTS) 4,5	<b>Semester</b> Semester 5/7	<b>Frequency</b> each odd-semester	<b>Duration</b> 16 meetings
<b>1</b>	<b>Types of courses</b> <i>Elective (Informatics Engineering Level)</i>	<b>contact hours</b> 63 hours	<b>independent study</b> 27 hours	<b>class size</b> 40 students	
<b>2</b>	<b>Prerequisites for participation</b> Have completed Algorithms and Data Structures & Database course				
<b>3</b>	<b>Learning outcomes</b> <ul style="list-style-type: none"> <li>• IF-ILO-3</li> </ul> <p>Graduates are able to develop professional careers in the field of computer science based on quality aspects, data-based decision making, be responsible, and make continuous improvements.</p>				
<b>4</b>	<b>Subject aims</b> <ul style="list-style-type: none"> <li>• Students are able to explain the concept of data engineering.</li> <li>• Students are able to create a data engineering infrastructure blueprint.</li> <li>• Students are able to apply how to read and write files</li> <li>• Students are able to build SQL and NoSQL databases.</li> <li>• Students are able to build pipeline data</li> </ul>				
<b>5</b>	<b>Teaching methods</b> lectures, case study, class discussion, presentation				
<b>6</b>	<b>Assessment methods</b> assignment, mid-term examination, end-term examination, project evaluation, practical-skill assessment				
<b>7</b>	<b>This module is used in the following degree programs as well</b> <i>Informatics Engineering</i>				
<b>8</b>	<b>Responsibility for module</b>				
<b>9</b>	<b>Other information</b> <ol style="list-style-type: none"> <li>1. Software Architecture Design Pattern in Java, Partha Kuchana, Auerbach</li> <li>2. Head First Design Pattern, Eric Freeman, Oreilly</li> </ol>				