

## TEMPLATE FOR MODULE/COURSE DESCRIPTION

Programme of “Fundamentals of relational databases”		
<b>Code: I0243</b> <b>Compulsory</b> <b>First cycle in Information Engineering</b> <b>3<sup>rd</sup> year of study, 1<sup>st</sup> semester</b>		
<b>Number of ECTS credits: 6 (workload is 150 hours; 1 credit = 25/30 hours)</b>		
<b>Teacher: Paolino DI FELICE</b>		
<b>1</b>	<b>Course objectives</b>	The course introduces the fundamental concepts necessary for designing and implementing and querying (by means of SQL) relational databases.
<b>2</b>	<b>Course content and Learning outcomes (Dublin descriptors)</b>	<p>Topics of the module include:</p> <ul style="list-style-type: none"> <li>- the relational algebra.</li> <li>- Major SQL statements.</li> <li>- The E-R model.</li> <li>- The design of relational databases.</li> </ul> <p>On successful completion of this module, the student should:</p> <ul style="list-style-type: none"> <li>- have profound <b>knowledge</b> of the relational database technology,</li> <li>- have <b>knowledge and understanding</b> about the design of real-life relational databases (RDBs),</li> <li>- <b>understand and explain</b> how to create, update and querying RDBs by using SQL</li> <li>- <b>understand how it is possible to p</b>reserve the consistency of the contents of a RDB through the implementation of intra-/inter-constraints,</li> <li>- <b>demonstrate skill</b> in the design and <b>ability</b> to manage RDBs by using SQL,</li> <li>- demonstrate <b>capacity</b> for reading and understand other texts on related topics.</li> </ul>
<b>3</b>	<b>Prerequisites and learning activities</b>	The student must know the elementary notions for algebra and programming languages.
<b>4</b>	<b>Teaching methods and language</b>	<p><b>Lectures, team work, exercises.</b></p> <p><b>Language:</b> Italian</p> <p><b>Ref. Text book:</b>  P. Atzeni, S. Ceri, S. Paraboschi, R. Torlone, <i>Basi di Dati - Modelli e linguaggi di interrogazione</i>, McGraw-Hill Libri Italia, 4<sup>th</sup>, 2013.</p>
<b>5</b>	<b>Assessment methods and criteria</b>	<b>Written and oral exam.</b>