

## Computer Science Introduction

Course Title: Computer Science Introduction					
<b>Course Code:</b> COM60016	<b>Student Workload:</b> 5.67 Hours/Weeks	<b>Credits:</b> 2 Credits (3.00 ECTS)	<b>Semester:</b> 1 <sup>st</sup> Semester	<b>Frequency:</b> Odd Semester	<b>Duration:</b> 16 Weeks/ Semester ( <i>Lecture:</i> 14 weeks; <i>Midterm assessment:</i> 1 week; <i>Final assessment:</i> 1 week)
<b>1</b>	<b>Types of Courses:</b> Knowledge Course	<b>Contact Hours:</b> <i>Lecturing:</i> 1.67 Hours/ Week; <i>Practical Work:</i> 0.00 Hours/ Week	<b>Independent Study:</b> <i>Self-study:</i> 2.00 Hours/ Week; <i>Structured Assignment:</i> 2.00 Hours/ Week	<b>Class Size:</b> 40 Students	
<b>2</b>	<b>Prerequisites for Participation</b> (If Applicable): -				
<b>3</b>	<b>Learning Outcomes:</b> <ol style="list-style-type: none"> <li>1. M1: Students are able to understand various clusters of computer science in relation to the IT profile/profession, the basic competencies of IT graduates and the basic conceptions of the IT field.</li> <li>2. M2: Students are able to explain about computers which includes a basic understanding of hardware, software and brainware.</li> <li>3. M3: Students are able to explain several computer science topics including internet, network, database, software development and security.</li> <li>4. M4: Students are able to apply computational thinking and informatics logic in several examples of computer science cases.</li> <li>5. M5: Students are able to apply the concept of information technology integration in the learning process using several IT uses.</li> <li>6. M6: Students are able to understand several trends in technology development and research in the field of computer science.</li> </ol>				
<b>4</b>	<b>Subject aims/Content:</b> At the end of the course, students are expected: <ol style="list-style-type: none"> <li>1. L1: Students are able to explain various clusters of computer science in relation to the IT profile/profession, basic competencies of IT graduates and basic conceptions of the IT field.</li> <li>2. L2: Students are able to explain various computer peripheral hardware including motherboard, CPU, memory, disk, input and output devices, future peripherals).</li> <li>3. L3: Students are able to explain various peripheral software including operating system, programming, application).</li> <li>4. L4: Students are able to explain brainware and computer science professions.</li> <li>5. L5: Students are able to explain database and software development.</li> <li>6. L6: Students are able to explain internet, network, and security .</li> <li>7. L7: Students are able to apply computational thinking in several examples of computer science cases.</li> <li>8. L8: Students are able to apply informatics logic in several examples of computer science cases.</li> <li>9. L9: Students are able to distinguish the integration of information technology at the level of enhancing (as a supporting tool) and transforming level (as a modifier) in the learning process.</li> <li>10. L10: Students are able to use IT technology in the learning process including repositories, e-learning tools and Google services.</li> <li>11. L11: Students are able to explain several trends in technology development and research in the field of computer science: AI, Big Data, IoT.</li> </ol>				

5	<b>Teaching Methods:</b> Lecturing, Group Discussion
6	<b>Assessment Methods:</b> Essay, multiple-choice, project assessment, anecdotal record/logbook
7	<b>This Course is Used in The Following Study Programme/s as Well:</b> -
8	<b>Responsibility for Course:</b> Issa Arwani, S.Kom., M.Sc.
9	<b>Other Information:</b> Bibliography: <ol style="list-style-type: none"> <li>1. ACM Computing Curricula Computer Science 2013, ACM.</li> <li>2. Naskah Akademik Kerangka Kualifikasi Nasional Indonesia (KKNI) Rumpun Ilmu Informatika dan Komputer v.1., 2015.</li> <li>3. Future Works Skill, Institute for the Future, <a href="http://www.iff.org/futureworkskills/">http://www.iff.org/futureworkskills/</a></li> <li>4. Abdul Kadir, Pengantar Teknologi Informasi Edisi Revisi, Penerbit Andi, 2013.</li> </ol>