Database Administration

<table>
<tr><td colspan="7">Course Title: Database Administration</td></tr>
<tr><td colspan="2">Course Code:
CIE60044</td><td>Student Workload:
8.50 Hours/ Weeks</td><td>Credits:
3 Credits (4.50 ECTS)</td><td>Semester:
5th Semester</td><td>Frequency:
Odd Semester</td><td>Duration:
16 Weeks/ Semester (Lecture: 14 weeks; Midterm assessment: 1 week; Final assessment: 1 week)</td></tr>
<tr><td>1</td><td colspan="2">Types of Courses:
Content Knowledge Course</td><td>Contact Hours:
Lecturing: 1.67 Hours/ Week; Practical Work: 2.83 Hours/ Week</td><td colspan="2">Independent Study:
Self-study: 2.00 Hours/ Week; Structured Assignment: 2.00 Hours/ Week</td><td>Class Size:
40 Students</td></tr>
<tr><td>2</td><td colspan="6">Prerequisites for Participation (If Applicable):
Database Design and SQL</td></tr>
<tr><td>3</td><td colspan="6">Learning Outcomes:
1. M1: Able to identify, formulate and analyze the problem of information system needs of an organization in the context of providing database servers (ILO-4) (0,2)
2. M2: Able to identify, formulate and analyze database server performance problems in complex data transaction environments, maintain performance, availability, and security of data stored therein (ILO-4) (0,2)
3. M3: Able to implement database server architecture and perform database management through modules or commands that are already available in popular RDBMS tools (ILO-8) (0,4)
4. M4: Demonstrate understanding and application of database server architecture which includes requirements planning, performance monitoring and handling, data security, and mitigating access availability from potential system failures (ILO-9) (0,1)
5. M5: Demonstrating the ability to set up a database server architecture through scenarios of handling key server issues using popular RDBMS tools (ILO-9) (0,1)</td></tr>
<tr><td>4</td><td colspan="6">Subject aims/Content:
At the end of the course, students are expected:
1. L1: Able to understand the duties and roles of database administrators and the system environment of popularly used RDBMS tools (IBM DB2) (M1)
2. L2: Able to identify and formulate server configurations that suit the needs of information systems to handle complex data transactions, maintain service performance, availability of access to data, and data security at the system level to data lines (M2)
3. L3: Able to use SQL modules or syntax to configure database servers according to the data storage needs of an organization (M3)
4. L4: Able to demonstrate database servers in handling complex data transactions based on data transaction scenarios that occur in the information system used by the organization (M4)
5. L5: Able to demonstrate the stages of database server installation, configuration, and implementation to be able to perform database backup and recovery simulations from potential system problems or failures (M5)</td></tr>
<tr><td>5</td><td colspan="6">Teaching Methods:
Lecturing, Group Discussion, Case-Based Learning, Project-Based Learning</td></tr>
<tr><td>6</td><td colspan="6">Assessment Methods:
Essay, portfolio, performance test, peer assessment</td></tr>
<tr><td>7</td><td colspan="6">This Course is Used in The Following Study Programme/s as Well:
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<tr><td>8</td><td colspan="6">Responsibility for Course:
Satrio Agung Wicaksono, S.Kom., M.Kom.</td></tr>
<tr><td>9</td><td colspan="6">Other Information:
Bibliography:</td></tr>
</table>

	1. Craig S. Mullins. (2002) 'Database Administration: The Complete Guide to Practices and Procedures', Addison-Wesley, ISBN 0201741296 2. Agarwal, K.K. and Mohanty, M. and Jamshed, A.(2019) 'Fundamental of Database Administration: Dba`, Independently Published, ISBN 9781092885171