

## Module Description

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| Module name:  | Statistics   |
| Module level, if applicable                           | -  |
| Code, if applicable                                   | 101D5213   |
| Subtitle, if applicable                               | -  |
| Courses, if applicable                                | Statistic  |
| Semester(s) in which the module is taught             | 1  |
| Person responsible for the module                     | 1. Sri Aliah Ekawati, ST., MT<br>2. Sri Wahyuni, ST., MT   |
| Lecturer  | 1. Dr. Eng. Ihsan, ST., MT<br>2. Dr. Eng. Abdul Rachman Rasyid, ST., M.Si;<br>3. Sri Aliah Ekawati, ST., MT<br>4. Laode Muhammad Asfan, S.T., M.T<br>5. Sri Wahyuni, ST., MT<br>6. Jayanti Mandasari Andi Munawarah Abduh, S.T., M.Eng   |
| Language  | Bahasa Indonesia/ English  |
| Relation to curriculum                                | This course is one of mandatory subjects which is available in the first year/ first semester. Statistics is a science of estimation which is the basis for other courses related to the collection and calculation of data and samples.   |
| Type of teaching, contact hours                       | The method used on calculus subject is self-directed learning method. A quiz will be given every meeting as soon as after the student have received course materials. The subject also has two kind of test which is given in the middle and the last semester.  |
| Workload  | This course consists of three credits in one meeting/ week= 330 minutes per week= 5280 minutes per semester (approximately 88 hours per semester).   |
| Credit points   | 3  |
| Requirements according to the examination regulations | The number of student attendance is at least 80% of the total meeting.   |
| Recommended prerequisites                             | -  |
| Module objectives/intended learning outcomes          | CLO 1 Students are able to understand and apply the basics of statistics, basic concepts of mathematical modeling and statistical modeling, statistics, inductive statistics, variables, population and samples, parameters and statistics, data and data driven concepts (supports ILO 1, PI-1/3).<br>CLO 2 Students are able to understand, organize data, and apply it to real problems and draw conclusions from a group of data (supports ILO 2, PI-2/4).<br>CLO 3 Students are able to understand the concept of random variable |

|  | <p>theory and probability as well as its use in sampling distributions and introduction to sampling techniques (supports ILO 3, PI-2/3, ILO 4, PI-1/3).</p> <p>CLO 4 Students are able to understand and apply the concept of estimation theory and variance of a population (supports ILO 3, PI-1/3 ILO 4, PI-1/3).</p> <p>The following table is mapping of the ILO and CLO in this course:</p> <table border="1" data-bbox="610 493 1464 667"> <thead> <tr> <th></th> <th>ILO 1</th> <th>ILO 2</th> <th>ILO 3</th> <th>ILO 4</th> </tr> </thead> <tbody> <tr> <td>CLO 1</td> <td>x</td> <td></td> <td></td> <td></td> </tr> <tr> <td>CLO 2</td> <td></td> <td>x</td> <td></td> <td></td> </tr> <tr> <td>CLO 3</td> <td></td> <td></td> <td>x</td> <td>x</td> </tr> <tr> <td>CLO 4</td> <td></td> <td></td> <td>x</td> <td>x</td> </tr> </tbody> </table>  |                           | ILO 1 | ILO 2            | ILO 3    | ILO 4 | CLO 1 | x        |    |      |           | CLO 2 |     | x         |   |     | CLO 3     |    |      | x         | x  | CLO 4 |           |   | x    | x         |   |      |      |   |      |
|--|--|---------------------------|-------|------------------|----------|-------|-------|----------|----|------|-----------|-------|-----|-----------|---|-----|-----------|----|------|-----------|----|-------|-----------|---|------|-----------|---|------|------|---|------|
|  | ILO 1  | ILO 2                     | ILO 3 | ILO 4            |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| CLO 1  | x  |                           |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| CLO 2  |  | x                         |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| CLO 3  |  |                           | x     | x                |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| CLO 4  |  |                           | x     | x                |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| <p>The content and the relation to the studio works</p>            | <p>Statistic is a science of estimation. This course discusses about basic knowledge of mathematics to solve problems on the basis of probability and can also carry out event predictions based on the concept of sampling. The materials are absolutely used in measuring space of the line in first's studio assignment and the population projections in the data collection studio as the second studio's assignment.</p> <p>Additionally, the whole statistics materials are required to be learnt before taking urban and regional economics as a compulsory course in the data collection studio which is in the second semester.</p>  |                           |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| <p>Study and examination requirements and forms of examination</p> | <p>This course will be graded as follows:</p> <ol style="list-style-type: none"> <li>1. Midterms Exam (30%)</li> <li>2. Final Exam (35%)</li> <li>3. Quiz (15%)</li> <li>4. Task (20%)</li> </ol> <table border="1" data-bbox="703 1173 1373 1556"> <thead> <tr> <th>Percentage of Achievement</th> <th>Grade</th> <th>Conversion Value</th> </tr> </thead> <tbody> <tr> <td>85 – 100</td> <td>A</td> <td>4.00</td> </tr> <tr> <td>80 - &lt;85</td> <td>A-</td> <td>3.75</td> </tr> <tr> <td>75 - &lt; 80</td> <td>B+</td> <td>3.5</td> </tr> <tr> <td>70 - &lt; 75</td> <td>B</td> <td>3.0</td> </tr> <tr> <td>65 - &lt; 70</td> <td>B-</td> <td>2.75</td> </tr> <tr> <td>60 - &lt; 65</td> <td>C+</td> <td>2.5</td> </tr> <tr> <td>50 - &lt; 60</td> <td>C</td> <td>2.00</td> </tr> <tr> <td>40 - &lt; 50</td> <td>D</td> <td>1.00</td> </tr> <tr> <td>&lt; 40</td> <td>E</td> <td>0.00</td> </tr> </tbody> </table> | Percentage of Achievement | Grade | Conversion Value | 85 – 100 | A     | 4.00  | 80 - <85 | A- | 3.75 | 75 - < 80 | B+    | 3.5 | 70 - < 75 | B | 3.0 | 65 - < 70 | B- | 2.75 | 60 - < 65 | C+ | 2.5   | 50 - < 60 | C | 2.00 | 40 - < 50 | D | 1.00 | < 40 | E | 0.00 |
| Percentage of Achievement  | Grade  | Conversion Value          |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 85 – 100   | A  | 4.00                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 80 - <85   | A-   | 3.75                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 75 - < 80  | B+   | 3.5                       |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 70 - < 75  | B  | 3.0                       |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 65 - < 70  | B-   | 2.75                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 60 - < 65  | C+   | 2.5                       |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 50 - < 60  | C  | 2.00                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| 40 - < 50  | D  | 1.00                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| < 40   | E  | 0.00                      |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| <p>Media employed</p>  | <p>SIKOLA, Zoom</p>  |                           |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |
| <p>Reading list</p>  | <ol style="list-style-type: none"> <li>1. Feller, W. 1983. An Introduction to Probability Theory and Its Applications, Vol I dan II. Wiley Eastern Ltd., New Delhi.</li> <li>2. Hogg, R. V. dan Craig, A. T. 1978. Introduction to Statistics. McGraw-Hill Book Co., New York.</li> <li>3. Hogg, R. V. dan Craig, A. T., 1978. Introduction to mathematical statistics, edisi ke 4, John Wiley &amp; Sons. New York.</li> <li>4. Mendenhall, W., Beaver, R. J. dan Beaver, B.M. 2009. Introduction</li> </ol>  |                           |       |                  |          |       |       |          |    |      |           |       |     |           |   |     |           |    |      |           |    |       |           |   |      |           |   |      |      |   |      |

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|  | <p>to Probability and Statistics. 13<sup>th</sup> Edition, Brooks/Cole, Cengage Learning, Florida.</p> <ol style="list-style-type: none"> <li>5. Snedecor, G. W. dan Cochran, W. G. 1967. Statistical Methods, Edisi ke 6. The Iowa State University Press, Ames.</li> <li>6. Steel. R. G. D dan Torrie. J. H., 1976. Introduction to statistics. McGraw-Hill Book Co., New York.</li> <li>7. Suntoyo Yitnosumarto, 1990. Dasar-dasar Statistika. Rajawali pers. Jakarta.</li> <li>8. Walpole, R. E. 1993. Pengantar Statistika. Edisi 3. PT. Gramedia Pustaka Utama.</li> <li>9. Yitnosumarto, S. 1990. Dasar-dasar Statistika. Rajawali Pers., Jakarta.</li> </ol> |
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