# CP234101 - Planning Statistics

| Module Name | Statistics of Planning |
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| **Module level, if applicable** | Basic BoURP |
| **Code, if applicable** | CP234101 |
| **Subtitle, if applicable** | - |
| **Course, if applicable** | Planning Statistics |
| **Semester(s) in which the module is taught** | 1st Semester |
| **Person responsible for the module** | Ketut Dewi Martha Erli Handayeni |
| **Lecturer** | Hertiari Idajati<br>Fendy Firmansyah<br>Ketut Dewi Martha Erli<br>Ummi Fadlilah K.<br>Cahyono Susetyo<br>Anoraga Jatayu |
| **Language** | Indonesian, English |
| **Relation to curriculum** | Compulsory Courses for undergraduate program in Urban and Regional Planning |
| **Type of teaching, contact hours** | M1: Group discussion<br><br>2.5 hours x 14 weeks = 35 hours |
| **Workload** | Regular (3 SKS)<br>Class: 2.5 hours x 14 weeks = 35 hours<br>Structured activities: 4 hours x 14 weeks = 56 hours<br>Independent Study: 3 hours x 14 weeks = 42 hours<br>Exam: 1.5 hours x 4 time = 6 hours<br>Total = 133 hours |
| **Credit points** | 3 SKS ~ 4.8 ECTS |
| **Requirements according to the examination regulations** | Registered in this course<br>Minimum 80% attendance in this course |
| **Recommended prerequisites** | - |
| **Module objectives/intended learning outcomes** | *General knowledge:*<br>1. Able to understand non-spatial planning methods in making decisions in the field of urban and regional planning.<br>2. Able to understand the techniques and processes of urban and regional planning quantitatively, and spatial modeling (geographical information |

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| | systems) and presentation techniques.<br>***Specific knowledge*:**<br>*1.* Students are able to understand the concept of descriptive statistics in case studies related to regional/city planning<br>*2.* Students were able to understand the concept of data measurement scale, the concept of probability, and the type of distribution in case studies related to regional and municipal planning<br>*3.* Students are able to understand the concepts of population, sample, sampling techniques in regional/city planning case studies<br>*4.* Students were able to understand the concept of statistical inference techniques as well as the analysis of correlations and covariates in the case study of regional/city planning |
| **Content** | 1. Introduction to statistics for planning<br>2. Data Scale and Measurement<br>3. Descriptive statistics<br>4. Basic concepts of probability and probability for district and continuous variables<br>5. The concepts of probability distribution, normal distribution, and continuous distribution<br>6. Population, sample, and sampling technique<br>7. Types of probabilistic and non-probabilistic sampling techniques<br>8. Statistical concepts of inference and parameter estimation (point estimation and interval estimation)<br>9. The concept of testing the hypothesis of two samples / dependent and independent populations<br>10. Correlation analysis techniques (Pearson, Spearman, Wilcoxon, Tau-b Kendall)<br>11. Covariance techniques (one way, two way ANOVA, MANOVA) |
| **Study and examination requirements and forms of examination** | *4 assessments:*<br><br>| Evaluation | Method | Weight |<br>|---|---|---|<br>| 1 | **Descriptive Statistics Task** | **20%** |<br>| 2 | **Quiz 1** | **30%** |<br>| 3 | **Quiz 2** | **30%** |<br>| 4 | **Mini Research** | **20%** |<br><br>*1. **Descriptive Statistics Task – week 3***<br>*2. **Quiz 1– week 7***<br>*3. **Quiz 2 – week 14***<br>*4. **Mini Research – week 16*** |
| **Media employed** | Classical teaching tools with white board and power point presentation, audiovisual, zoom meeting, ITS online classroom. |

| Reading list | Main reference: |
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| | 1. Rose, J & Beck, M., Basic Quantitative Analysis for Management. Compiled from Basic Business Statistics. The University of Sydney. Sydney, 2007.<br>2. Dillon, WR & Goldstein M., Multivariate Analysis: Methods and Application, John Willey & Sons, New York, 1984<br>3. Kachigan, Sam Kash, Statistical Analysis: An Interdisciplinary Introduction to Univariate&Multivariate Methods, Radius Press, New York, 1986<br>4. Walpole, E.Ronald. 1995. Pengantar Statistika Edisi Ke-3. Jakarta: Gramedia Pustaka Utama |