

PL4016 Urban Analytics and Informatics

Module designation	Urban Analytics and Informatics
Semester(s) in which the module is taught	7/8 th Semester (forth year of undergraduate program)
Person responsible for the module	Dr.Eng. Maya Safira, S.T., M.T.
Language	Indonesian
Relation to curriculum	Elective Course
Teaching methods	Lecture
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: around 9 hours per week x 16 weeks = 144 hours • Face to face teaching: 42 hours (lecture) • Structured activities: 24 hours (lecture) and 24 hours • Independent study: 24 hours (lecture) and 24 hours • Exam: 6 hours
Credit points	3 CU/5 ECTS
Required and recommended prerequisites for joining the module	PL2109 Urban and Regional Analytics PL2108 Geographic Information System in Planning PL3022 Planning Information Systems
Module objectives/intended learning outcomes	1. Ability to design urban analytics projects or models 2. Ability to perform model deployment for urban analytics models
Content	(Estimated) Total workload: around 9 hours per week x 16 weeks = 144 hours • Face to face teaching: 42 hours (lecture) • Structured activities: 24 hours (lecture) and 24 hours (tutorial) • Independent study: 24 hours (lecture) and 24 hours (tutorial) • Exam: 6 hours
Examination forms	Quiz (10%) 2. Group Assignment (40%) 3. Mid Exam (30%) 4. Final Exam (20%)
Study and examination requirements	Practicum

Reading list	1. Oppenheim, N, Models in Urban and Regional Analysis, , Prentice Hall, 1980 2. Miles, MB and Hubermann, AM, Qualitative Data Analysis, , Sage, 1994 3. Makridakis, S (et.al), Forecasting: Methods and Applications, , John Willey & Son, 1983 4. Kachigan, SK, Statistical Analysis: Introduction to Bivariate & Multivariate Analysis,, , Radius Press, New York, 1986 5. Isard, W, Methods of Regional Analysis: An Introduction to Regional Science,, , The MIT Press, 1969 6. Dillon, W and Goldstein, M, Multivariate Analysis: Methods Application,, , John Wiley & Son, New York, 1984 7. Dey, Ian, Qualitative Data Analysis: A User Friendly Guide for Social Scientist, 1, Rouledge, 1993 8. Taha HA, Operation Research: An Introduction, , Mac Millan Publishing Company, 1987 9. Tabachnick BG dan Fidell LS, Using Multivariate Statistics, 5, Pearson, 2007 10. Thomas RM, Blending Qualitative and Quantitative Research Methods in Theses and Dissertations, 1, Corwin Press, Inc., 2003 11. Khandker, S. R., Koolwal, G. B., & Samad, H. A. (2009). Handbook on impact evaluation: quantitative methods and practices. World Bank Publications. 12. Hilbe, J. M. (2009). Logistic regression models. Chapman and hall/CRC. 13. Oppenheim, N. (1980). Applied models in urban and regional analysis. Prentice Hall. 14. Wang, X., & Hofe, R. (2008). Research methods in urban and regional planning. Springer Science & Business Media.
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