PL6008 Data Integration for Planning

Module designation	Data Integration for Planning
Semester(s) in which the module is taught	3rd Semester (second year of master program)
Person responsible for the module	Nurrochman Wijaya, PhD Ibnu Syabri, PhD
Language	Indonesian
Relation to curriculum	Elective
Teaching methods	Practicums, group discussions
Workload (incl. contact hours, self-study hours)	(Estimated) Total workload: around 9 hours per week x 16 weeks = 144 hours ● Face to face teaching: 2 hours per week = 2 x 16 = 32 hours ● Self-study hours: 7 hours per week: 7 x 16 = 112 hours
Credit points	3 CU/5 ECTS
Required and recommended prerequisites for joining the module	-
Module objectives/intended learning outcomes	1. Able to evaluate the earth system by integrating systems analysis and systems thinking to build models that describe reality as a system with its components and inter-relationships. 2. Able to create user-centered designs by defining "usability" and applying design principles at the initial requirements analysis stage, as well as choosing a prototype evaluation method at the final stage. 3. Able to explain and apply basic processes, processing, analysis and conversion in a Spatial Data Infrastructure (SDI) environment, integrate data from various remote sensing, and use change detection methods to overcome data integration challenges.
Content	The students will be able to use the knowledge obtained from the GI systems and Earth observation, and perform analysis and data integration in a limited application context. During the course students will use GIS and Remote Sensing to enter, manipulate, analyse, model, visualize, disseminate, combine and integrate geospatial data. The three main topics of the course are briefly described below: (1) System Earth, (2) System components and models, (3) Use and the User, Spatial Data Infrastructure and Geo-portals, and (4) Data Integration.
Examination forms	Midterm, final exam, group discussio, group assignments
Study and examination requirements	

Reading list	Tolpekin, V. & Stein, A. (eds), The core of GI Science: a systems-based approach, 2014 Fingleton, B., & López, B. (2018). Regional and Urban Economics: Theory and Methodology. Edward Elgar Publishing. Fujita, M., & Thisse, J. F. (2013). Economics of Agglomeration: Cities, Industrial Location, and Regional Growth. Cambridge University Press. Nijkamp, P., & Poot, J. (2005). Spatial Economic Analysis: Methods and Models. Springer. Arbia, G., Lee, L.-F., & LeSage, J. P. (Eds.). (2020). Journal of Spatial Econometrics. Spatial Econometrics Association. https://www.spatialeconometricsassociation.org/publications/ Fingleton, B., & López, B. (2018). Regional and Urban Economics: Theory and Methodology. Edward Elgar Publishing. Fujita, M., & Thisse, J. F. (2013). Economics of Agglomeration: Cities, Industrial Location, and Regional Growth. Cambridge University Press.