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Course title: UML IN PRACTICE

ECTS credit allocation (and other scores): 3.5

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 45

Course coordinator/ Department and e-mail: Agnieszka Chojka, Ph.D., Department of Geoinformation and Cartography, agnieszka.chojka@uwm.edu.pl

Type of classes: classes and lectures

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#### Substantive content

**CLASSES:** Analysis of chosen UML application schemas (e.g. INSPIRE data specifications, polish regulations). Preparation of UML application schema for specific application domain with the use of chosen CASE software. Elaboration of others UML diagrams.

**LECTURES:** Interoperable data exchange. Normalized approach to geographic information modelling. ISO 19100 series of International Standards. OGC and OMG specifications in the domain of geographic information. UML basics. Rules for UML application schemas. Examples of UML application schemas (INSPIRE data specifications, polish regulations).

**Learning purpose:** Acquaint student with problems concerning: interoperable data exchange, normalized approach to geographic information modelling and practical aspects of using UML for creating application schemas.

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On completion of the study programme the graduate will gain:

**Knowledge:** Acquires knowledge in the range of interoperable data exchange, normalized approach to geographic information modelling. Has knowledge how to use UML in his professional practice.

**Skills:** Can prepare UML application schema, design and build spatial database with the use of UML for the geographic information system.

**Social Competencies:** Is open for novelties and technical news in the domain of geoinformation. The graduate is aware of significance of digitization in the local development forming. Is able to cooperate and work in group, can use geoinformation knowledge in professional activity.

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**Basic literature:** Booch G., Rumbaugh J., Jacobson I., The Unified Modeling Language User Guide, Addison-Wesley, 1998; Ambler S.W., The Elements of UML™ 2.0 Style, Cambridge University Press, 2005.

**Supplementary literature:** Fowler M., UML Distilled: A Brief Guide to the Standard Object Modeling Language, Addison-Wesley Professional, 2003; Seidl M., Scholz M., Huemer Ch., Kappel G. UML @Classroom: An Introduction to Object-Oriented Modeling, Springer, 2015.

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The allocated number of ECTS points consists of:

Contact hours with an academic teacher: 45

Student's independent work: 60