



Course title: AIRBORNE AND TERRESTRIAL LASER SCANNING

ECTS credit allocation (and other scores): 2808S2-AIRTERR, ECTS: 3

Semester: autumn

Level of study: ISCED-7 - second-cycle programmes (EQF-7)

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 54

Course coordinator/ Department and e-mail: wioleta.blaszczak@uwm.edu.pl

Type of classes: classes and lectures

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#### Substantive content

CLASSES: Basic inertial measurement system calculations. LIDAR point cloud processing. Classification and segmentation. Surface modeling.

LECTURES: Principle of airborne laser scanning. Methods and algorithms of LIDAR data processing. Point cloud classification. Data redundancy. Point cloud segmentation. Numerical methods in point cloud processing.

Learning purpose: Introduction of LIDAR technique and LIDAR data processing principles.

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On completion of the study programme the graduate will gain:

Knowledge: W1

Skills: U1-Student can perform LiDAR data processing

Social Competencies: K1

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Basic literature: George Vosselman, Hans-Gerd Maas, Airborne and Terrestrial Laser Scanning, wyd. CRC Press,, 2010

Supplementary literature:

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The allocated number of ECTS points consists of: 3

Contact hours with an academic teacher:

Student's independent work: