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Course title: UNMANNED AERIAL VEHICLES

ECTS credit allocation (and other scores): 2

Semester: spring

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

Branch of science: Engineering and technology

Language: English

Number of hours per semester: 45

Course coordinator/ Department and e-mail: Professor Dariusz Popielarczyk, Ph.D., Institute of Geodesy,  
dariusz.popielarczyk@uwm.edu.pl

Type of classes: classes and lectures

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#### Substantive content

CLASSES: Construction and operation of UAV, ground station of flight control (preparation of route), flight simulators, control principles of UAV's, practical operation of UAV, photogrammetric project + data processing.

LECTURES: International and national aviation organizations. Aviation law, airspace, flight crews, the base of aerodynamics and mechanics of flight (flight rules), basic electronics, basic meteorology, drone: history, structure, types and application; UAVO certificate; software for data processing.

Learning purpose: The basic aim is the acquisition of general knowledge of unmanned aerial vehicles.

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On completion of the study programme the graduate will gain:

Knowledge: He has knowledge of development trends and the most important new developments in the field of UAVs.

Skills: Is able to plan and carry out experiments, including measurements and computer simulations, interpret the results and draw conclusions with the use of unmanned aerial vehicles.

Social Competencies: Can interact and work in groups, can organize UAV mission.

Basic literature: -

Supplementary literature: -

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The allocated number of ECTS points consists of: 50

Contact hours with an academic teacher: 45

Student's independent work: 5