

Equipment for precision agriculture (IVth Year of study, VIIIth Semester)

Credit value (ECTS) 3

Course category

Optional

Discipline code

A.EMIAIA.S.416

Course holder

Vlad Nicolae ARSENOAIA

Discipline objectives (course and practical works)

Within the course and practical works, the aim is for students to acquire the theoretical and practical foundation regarding the equipment for precision agriculture.

Contents (syllabus)

Course (chapters/subchapters)
General considerations regarding the subject of the discipline Equipment for Agriculture 4.0GPS equipment Evolution of global positioning equipment Automatic machine control Equipment for irrigation system control Equipment for field orientation and assisted driving Equipment for hyperspectral imaging in agriculture Professional drones for agricultural use Agricultural robots

Practical works
NTS and PSI training Identification of materials used in the construction of equipment Practical applications of GPS systems in precision agriculture for managing agricultural land variability Practical applications of GPS systems in precision agriculture for tractors and agricultural equipment Components of a GIS Equipment for tractor autoguidance (self-driving) Equipment for fully autonomous driving Equipment for agricultural traffic control Equipment for variable rate application technology Equipment for automatic control of treatment machines Colloquium

References

1. Arsenoia V.N., 2024, Masini, utilaje si echipamente digitale pentru agricultura de precizie 4.0, Ed. Ion Ionescu de la Brad Iasi
2. Cazacu Dan, 2021, Agricultura de precizie, Editura Ion Ionescu de la Brad, Iasi

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Written examination	80%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	20%

Contact

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