UNIVERSITÀ DI PISA

AGRICULTURAL MACHINERY

CHRISTIAN FRASCONI

Anno accademico	2020/21
CdS	AGRICULTURAL SCIENCES
Codice	442GG
CFU	6

Moduli	Settore/i	Tipo	Ore	Docente/i
MECCANICA AGRARIA	AGR/09	LEZIONI	64	CHRISTIAN FRASCONI

Learning outcomes

Knowledge
The student who completes the course successfully will have acquired knowledge about the agricultural machinery characteristics and performances for a correct and efficient use, according to operative conditions and farm needs.

Assessment criteria of knowledge
The student will be assessed on his/her demonstrated ability to discuss and explain the main course contents using the appropriate terminology.

Skills
The student will be able to choose the agricultural machinery necessary for the management of a farm.

Assessment criteria of skills
During the course verification moments of acquired skills will be carried out by solving mechanical and agricultural mechanization problems, also using internet connections with the web sites of agricultural machinery manufacturers.

Behaviors
At the end of the course students will be able to manage in a technically correct way the agricultural machines and the farm mechanization paying particular attention to environmental and workplace safety issues.

Assessment criteria of behaviors
During the exercitations and lessons, students will be stimulated by the professor to solve in a technically correct way the agricultural machinery and farm mechanization issues with special attention to respect for the environment and workers' health.

Prerequisites
Math and physics knowledge imparted by the degree course are necessary.

Teaching methods
Delivery: face to face.

Learning activities:

attending lectures
Practical
Attendance: Advised

Teaching methods:
Lectures
Practical
It ' made extensive use of links to web sites.

Syllabus

Systems of measurement of physical quantities, driving forces and useful and passive resistant, power transmission, internal combustion engines, electrotechnical, aerotechnics, hydrotechnical, agricultural tractor, operating machines for soil tillage and management, sowing machines and transplantation, fertilizer spreader, sprayers, harvesters.

Bibliography

Recommended reading includes the following works: Schemes available on e-learning website of the Department of Agriculture, Food and Environment. Biondi P. (1999) Meccanica Agraria, UTET, Torino. Bodria L., Pellizzi G., Piccarolo P., (2006) Meccanica Agraria. Voll. I e II. Edagricole, Bologna. Lazzari M., Mazzetto F. (2005) Prontuario di Meccanica Agraria e Meccanizzazione, REDA, Torino. Pellizzi G. (1983) Meccanica Agraria, volume I e II, Edagricole, Bologna. Pellizzi G. (1996) Meccanica e Meccanizzazione Agricola, Edagricole, Bologna. Casa R. (2016) Agricoltura di Precisione. Edagricole – Edizioni Agricole di New Business Media srl, Milano.

Non-attending students info

There are no changes for non-attending students.
Not-attending students can follow the lessons using the teaching material provided on the E-learning web site by the teacher, suggested book and consulting the lesson log.

Assessment methods

Final oral exam
The examination includes:

1. the verification of applied physics knowledge;
2. description of agricultural machines;
3. selecting the agricultural machines (technical characteristics, quality and size),
4. machines fleet sizing, management and logistics.

Class web page

https://teams.microsoft.com/l/channel/19%3ad14e9c699c18421b881992872a07646b%40thread.tacv2/Generale?groupId=53369396-748c-44e7-8a4d-28d73a29e3b1&tenantId=c7456b31-a220-47f5-be52-473828670aa1

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