Syllabus

Course Description

Course Title	Agricultural Machinery
Course Code	40189
Course Title Additional	
Scientific-Disciplinary Sector	AGRI-04/B
Language	Italian
Degree Course	Bachelor in Agricultural, Food and Mountain Environmental Sciences
Other Degree Courses (Loaned)	
Lecturers	Prof. Fabrizio Mazzetto, fabrizio.mazzetto@unibz.it https://www.unibz.it/en/faculties/agricultural-environmental-food-sciences/academic-staff/person/29638
Teaching Assistant	
Semester	First semester
Course Year/s	2
CP	6
Teaching Hours	36
Lab Hours	24
Individual Study Hours	90
Planned Office Hours	18
Contents Summary	Principles of Energy and Applied Physics to farm machinery Introduction to ITC solution for a digitally driven management of farm machinery Tractors and related implement coupling approaches (with focus on soil tillage, spraying and harvesting), with estimation of fuel consumption Farm operational monitoring: scheduling plans and ex-post automated control of farm processes Environmental and economic performances of farm machinery

Course Topics	
Keywords	
Recommended Prerequisites	
Propaedeutic Courses	no
Teaching Format	
Mandatory Attendance	no
Specific Educational Objectives and Learning Outcomes	Disciplinary Skills Knowledge and Understanding: Having awareness of the main design and management aspects of a mechanised system. Ability to Apply Knowledge and Understanding: Understanding and solving problems related to general and specific aspects of a mechanised system, including essential design activities (machine sizing in terms of power requirements and dimensions of working parts; work times; estimation of investment and operating costs; evaluation of possible environmental impacts; assessments on ergonomics and safety). Transversal Skills / Soft Skills Judgement Autonomy: Being able to evaluate real case studies and possible alternative scenarios. Communication Skills: Being able to present analytical proposals and case studies in professional contexts. Learning Ability: Being able to deepen and update the knowledge acquired during the course, independently searching for relevant information in scientific and technical literature
Specific Educational Objectives and Learning Outcomes (additional info.)	
Assessment	
Evaluation Criteria	
Required Readings	
Supplementary Readings	

Further Information	
Sustainable Development Goals (SDGs)	