UNIVERSITÀ DEGLI STUDI DI PALERMO

DEPARTMENT	Scienze Agrarie, Alimentari e Forestali
ACADEMIC YEAR	2019/2020
BACHELOR'S DEGREE (BSC)	AGRICULTURAL ENGINEERING
SUBJECT	AGRICULTURAL MECHANICS
TYPE OF EDUCATIONAL ACTIVITY	B
AMBIT	50120-Discipline dell'ingegneria agraria, forestale e della rappresentazione
CODE	12504
SCIENTIFIC SECTOR(S)	AGR/09
HEAD PROFESSOR(S)	ORLANDO SANTO Professore Associato Univ. di PALERMO
OTHER PROFESSOR(S)	
CREDITS	8
INDIVIDUAL STUDY (Hrs)	132
COURSE ACTIVITY (Hrs)	68
PROPAEDEUTICAL SUBJECTS	
MUTUALIZATION	
YEAR	3
TERM (SEMESTER)	1° semester
ATTENDANCE	Not mandatory
EVALUATION	Out of 30
TEACHER OFFICE HOURS	**ORLANDO SANTO** Monday 10:00 12:00 Dipartimento SAAF, Edificio 4, Ingresso L, Piano 1, Stanza 139 Tuesday 10:00 12:00 Dipartimento SAAF, Edificio 4, Ingresso L, Piano 1, Stanza 139 Friday 10:00 12:00 Dipartimento SAAF, Edificio 4, Ingresso L, Piano 1, Stanza 139

DOCENTE: Prof. SANTO ORLANDO

PREREQUISITES	Knowledge of the basic concepts of physics and mathematics
LEARNING OUTCOMES	Knowledge and understanding: Knowledge draw up a plan of mechanization. Ability 'to use the specific language. Applying knowledge and understanding: Ability to choose the drive agricultural machines and operators. Making judgments: Ability to assess the conditions and methods of use of agricultural machinery. Communication skills: Ability to interact with other professionals. Ability to transfer acquired knowledge to farmers. Learning skills: Ability to update by consulting the scientific publications. Ability to follow the master, seminars and refresher courses and specialization.
ASSESSMENT METHODS	The final exame consist in an oral colloqium during witch the student will be evaluated in terms of his capacity to reason and connection between the knowledge acquired During the exam could be ask to the student also to solve some problems related to the lectures topics
EDUCATIONAL OBJECTIVES	The aim is to make known constructive and functional characteristics of the main agricultural machines. The graduate will be able to selection of appropriate equipment in order to solve the particular business and cultural needs.
TEACHING METHODS	Thecourse consists of lectures for which the teacher use Power Point presentations that will be available for students. It will visit the Museum of machinery and engines and farms
SUGGESTED BIBLIOGRAPHY	Biondi P. (1999). Meccanica Agraria – Le macchine agricole. UTET; Torino Peruzzi A., Sartori L. (1997). Lavorazione del terreno. Ed agricole Bodria L., Pellizzi G., Piccarolo P. (2006). Meccanica Agraria vol. I e II. Ed agricole Dispense fornite dal docente durante il corso.

SYLLABUS

Hrs	Frontal teaching
1	Objectives of the course and its subdivision.
2	History of agricultural mechanization
2	Internal combustion engines
2	Electric engines
2	Power transmission systems
4	The farm tractors
2	Wheels and tracks
2	Hitches and power applications
4	Machines for soil coltivation
2	Seeders, fertilizer and transplantation machines
4	Sprayers Machines
3	the combine harvesters
4	Machines for forage harvester
4	Machines for the collection of vegetable crops
6	Machine for fruit harvester
2	Machines for the transport and handling of the products on farms
2	Safety and ergonomics of farm machinery

Hrs	Workshops
2	Tractor static balance
2	Tractor dynamic balance
6	Machine and implement selection criteria.

Hrs	Others
10	Observaction of use and regulation of agricultural machinery