General Information	
Academic subject	Agricultural Mechanics and Mechanization
Degree course	Agricultural Technologies and Science
Curriculum	all
ECTS credits	6
Compulsory attendance	NO
Language	Italian

Subject teacher	Name Surname	Mail address	SSD
	Alessandro Leone	alessandro.leone@uniba.it	AGR09

ECTS credits details			ETCs
Basic teaching activities	4 ECTS Lectures	2 ECTS classroom or field	
		exercises	

Class schedule	
Period	First semester
Year	2020-2021
Type of class	Lectures, class and field exercises, site visits

Time management	
Hours	150
In-class study hours	60
Out-of-class study hours	90

Academic calendar	
Class begins	12/10/20
Class ends	22/01/21

Syllabus	
Prerequisites/requirements	
Expected learning outcomes (according to Dublin Descriptors) (it is recommended that they are congruent with the learning outcomes contained in A4a, A4b, A4c tables of the SUA-CdS)	 Knowledge and understanding Advanced knowledge of the main agricultural machines and mechanical implements and the main agricultural mechanization concepts. Applying knowledge and understanding Knowledge and understanding Knowledge and ability to understand the constructive and functional aspects of the agricultural motor machines and implements. Making informed judgements and choices Ability to evaluate and choose agricultural machines and its inclusion in the different farms, in agreement with the environment and the operators' health. Communicating knowledge and understanding Ability to explain and motivate the choices made in the field of agricultural mechanization. Capacities to continue learning Ability to learn the operation of different agricultural machines based on the knowledge gained during the course. The results of the expected learning, in term of knowledge and ability, are listed in the Annex A of the Didactic Regulation of the Bachelor Course (expressed but the Summer of the during the course)
Contents	 Presentation of the course and brief history of the agricultural mechanization Introduction: the disciplines of agricultural mechanics and agricultural mechanization machine, general equation and machine performance, classifications of machines (simple machines, complex machines and electric machines) Force resisting Fuel energies and general characteristics Mechanical and hydraulic transmissions Pumps, fans and compressors Tractor:

Course program Bibliography Ourse program Bibliography Ourse program Bibliography Course program Bibliography Assessment methods (Indicate at Assessment methods (Indicate at Assessment methods (Indicate at Assessment methods (Indicate at I hardwards) a size of the oraclines: types, operation, processing data and selection criteria Assessment methods (Indicate at I hardwards) and support the harvester, oliving harvest at a selection criteria accomplishment is expressed by a vote of thirry. The partial check, the final examination af sequencing of the student's according on going with the course year in which the teacks of a oraclines according on going with the course year in which the teacks of a oraclines according to special main course year of the synapse matchines working attention to course program Course program - Bodria - G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edgricola. Biologn - Piccision agriculture machines: types, operation, processing data and selection criteria - Soming and transplanting machines: types, operation, processing data and selection criteria - Soming agriculture machines: types, operation, processing data and selection criteria - Soming agriculture machines: types, operation, processing data and selection criteria - Procision agriculture machines: types, operation, processing data and selection criteria - Procision agriculture machines: types, operation, processing data and selection criteria - Soming the theoretical and practical aspects. - The course topics will be explained by using Power Point presentations. - A paracid hecks is planned for students on going with the course year in which the teack of the check		- supporting structure
Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edigaricole, Bologna Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Mecanizzazione Agricola. Edigaricole, Bologna Teaching et al. Concerta biologna - Productions and state of the correct bodr for theoretical and practical aspects. The course topics will be explained by avote of this check consists of an oral test periation to the student's consist of the student's consistent is spreaded by avote of this check consists of an oral test periation to the student's consistent is preseded during the theoretical lessons and exercise acricial aspects. The course topics will be explained by avote of the student's consistent of the student's consistent of the student's consistent of the student's accompliation are public. The final examinations are public. The evaluation of the student's accompliation are public. The evaluation of the student's accompliation are public. The evaluation of the consistent of the student's accompliation are public. The conces		- endothermic engine: (operating principle, constituent parts, Otto 4T and 2T thermal cycle, Diesel 4T thermal cycles. Emission classes of engines, EGR, DOC, DPF and SCR devices.
Course program Bibliography - Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Course program - Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Bibliography - Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Course program - Soli dilage hore solitor of the concept of the course year in which the taxeling it check. The outcome of this check consitus of an oral tests. A first are reference both for theoretical and practical aspects. Teaching methods The course topic will be explained for submeth for submethol for protections of the taxet of the taxet are reference both for theoretical and practical aspects. Teaching methods for a carasised by a vote of thirty. The final examining the threations of the tractorie dissibilizer. Passed by a vote of the vote of the vote of the vote of the course year in which the taxet of an oral test concerning the theoretical and practical aspects. Teaching methods The texts are reference both for theoretical and practical aspects. The course topics will be explained by using Power Point presentations. Assessment methods (indicates are reference both for theoretical and practical aspects. The course topics will be explained by using Power Point presentations. Assessment methods (indicates are reference both for theoretical and practical aspects. The course topics will be explained by using Power Point presentablos. The		- transmission: clutch engagement, mechanical synchronized transmission, semi powershift, full powershift, DCT - dual-clutch transmission, differential gear, final reductions
 braking and steering components, trailing coupling, mounting coupling, power take-off (PTO) and cardan shaft Dynamic balance of the tractor Soli Uilage machines: operation, Iilage data and selection criteria of the different types of machines according to special, main, maturation and cultivation Iilage operations Machines for the pest control: classification. Liquid pesticide treatments. Methods for conservative agriculture Machines for the pest control: classification. Liquid pesticide treatments. Methods for conservative agriculture to the target. Technology of the sprayer machines working by means a) liquid pressure, air-assisted; b) pneumatic atomizing of the mixture: () centrifigal forces. Adjustments, choise methods, operational data. Sowing and transplanting machines: types, operation, processing data and selection criteria Spraders machines: types, operation, processing data and selection criteria Combine harvester; olive harvester; grape harvester Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologra Mazzari - F. Mazzetto Meccanica & Meccanizzazione dei processi productivi agricol. REDA, Torino 2016 Mazzari - Shaned for students on grag with the course year in which the teaching is carried out. This check consists of an oral test pertinent to trop to developed during the theoretical lessons and exercise carrolint. The evaluation of the final attainment		- propulsion and support wheel, tyres for driving wheels and for steering wheels, slip, rolling resistance, traction power.
characterization		- braking and steering components,
 power take-off (PTO) and cardan shaft Dynamic balance of the tractor Soil tillage machines: operation, tillage data and selection criteria of the different types of machines according to special, main, maturation and cultivation tillage operations Machines for the pest control: classification. Liquid pesticide treatments. Methods for conservative agriculture Machines for the pest control: classification. Liquid pesticide treatments. Methods for breaking up the thin liquid sheet. Methods for corring the droplets to the target. Technology of the sprayer machines working by means; a) liquid pressure, air-assisted; b) pneumatic atomizing of the mixture; c) contrigal forces. Adjustments, choise methods, operational data. Somig and transplanting machines: types, operation, processing data and selection criteria Somig and transplanting machines: types, operation, processing data and selection criteria Combine harvester; olive harvester; grape harvester Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Matzari : F.Mazzetto Meccanica & Meccanizzazione Agricola. Edagricole, Bologna Mazzari : F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Matzari : F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 A partial check is planned for students on going with the course year in which the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valif for on academic year. The evaluation of the		- trailing coupling, mounting coupling.
• Dynamic balance of the tractor • Soil Itilge machines: operation, tillage data and selection criteria of the different types of machines according to special, main, maturation and cultivation tillage operations • Machines for the pest control: classification. Liquid pesticide treatments. Methods for breaked, by pneumatic atomizing of the mixture; () centrifigal forces. Adjustments, choise methods, operational data. • Soreaders machines: types, operation, processing data and selection criteria • Soreaders machines: types, operation, processing data and selection criteria • Soreaders machines: types, operation, processing data and selection criteria • Soreaders machines: types, operation, processing data and selection criteria • Combine harvester, olive harvester, grape harvester • Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography • Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna – M. Lazzari - F. Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA. Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to tripic developed during the theoretical lessons and exercise carried out unit the date of the check. The ourcome of this check consists of an oral test concerning t		- power take-off (PTO) and cardan shaft
 Soli tilläge machines: operation, tilläge data and selection criteria of the different types of machines according to special, main, maturation and cultivation tillage operations Machines for conservative agriculture Machines for breaking up the thin liquid sheet. Methods for carrying the droplets to the target. Technology of the sprayer machines working by means: a) liquid pressure, air-assisted; b) pneumatic atomizing of the mixture; c) centrifigal forces. Adjustments, choise methods, operational data. Sowing and transplanting machines: types, operation, processing data and selection criteria Spreaders machines: types, operation, processing data and selection criteria Combine harvesters, olive harvester, grape harvester Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. 		• Dynamic balance of the tractor
Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione dei processi groduttivi agricolit. REDA. Torino 2016 Notes - Machines for the perpendencia a Meccanizzazione dei processi groduttivi agricolit. REDA. Torino 2016 Notes - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - Machines for the perpendencia a machines: walk of the concepts of the text stress of the rest stress of an oral test person stress of the rest stress of an oral test person stress of the rest stress of an oral test person of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final examines than a practical lessons and exercise carried out until the date of the check. The outcome of this check consists of an oral test period of the student's accomplishment is expressed by a vote of thirty. The partial check is passed in a rest stress of an oral test period of the student's accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The realization of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulation of the explating t		• Soil tillage machines: operation, tillage data and selection criteria of the
Course program Bibliography - Odria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edgigo e and the superior of the superior of the rest cass of a noral test period to the superior of the superior o		different types of machines according to special, main, maturation and cultivation tillage operations
Course program • Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Bibliography • Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Evaluation of the transplanting machines: types, operation, processing data and selection criteria • Course program Bibliography • Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - Microsci e Course, Statistical e the explain machines: types, operation, processing data and selection criteria • Combine harvesters, olive harvester, grape harvester • Precision agriculture machines: main concepts Working times. Working times. Working times. Working times. Working times. Working times. Notes The texts are reference both for theoretical and practical aspects. Teaching methods A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to the date of the check. The outcome of this check contributes to the evaluation of the students' accomplishment is expressed by a vote of thiry. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test pertinent to expressed by a vote of thiry. The final exam is passed with a vote of at least 18/30. The final exam consists of an oral test portice developed during the theoretical leasons and exercited court the vote of at least 18/30. The toral statiment is expressed by a		Machines for conservative agriculture
Methods for breaking up the thin liquid sheet. Methods for carrying the droplets to the target. Technology of the sprayer machines working by means: a) liquid pressure, air-assisted; b) pneumatic atomizing of the mixture; c) centrifigal forces. Adjustments, choise methods, operational data. * Sowing and transplanting machines: types, operation, processing data and selection criteria * Sowing and transplanting machines: types, operation, processing data and selection criteria * Combine harvester, give harvester; gree harvester * Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna Matzari - F. Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the taeching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check constibutes to the evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The course topics will be explained prove topic developed during the theoretical lessons. The evaluation of the students' accomplishment is expressed by a vo		Machines for the pest control: classification. Liquid pesticide treatments.
forces. Adjustments, choise methods, operational data. • Sowing and transplanting machines: types, operation, processing data and selection criteria • Spreaders machines: types, operation, processing data and selection criteria • Combine harvesters, olive harvester, grape harvester • Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) Partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. For students' actomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expres		Methods for breaking up the thin liquid sheet. Methods for carrying the droplets to the target. Technology of the sprayer machines working by means: a) liquid pressure, air-assisted; b) pneumatic atomizing of the mixture; c) centrifigal
 Sowing and transplanting machines: types, operation, processing data and selection criteria Spreaders machines: types, operation, processing data and selection criteria Combine harvesters, olive harvester, grape harvester Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least least least the type written, oral, other) the date of the check. The outcome of this check consists of an oral test pertinent to topics developed during the theoretical lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of a teast 18/30. The final exam consists of an oral test scenesid with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by a vote of thirty. The final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The evaluation of the students' accomplished in Annex A of the Academic Regulations for the Agricultural reaching archine: evalued of the concepts concerning the spressed by a vote of thirty. The final evalua		forces. Adjustments, choise methods, operational data.
Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna Milliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna Milliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna Milliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the tacching is carried out. This check constitues to the evaluation of the final attainment and is valid for one academic year. The evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the choorecical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The final examinations are public. The evaluation of the students' actas degree can be attributed in the case of top vote (30/30). The evaluation of the students' attainment is in agreement with pre		 Sowing and transplanting machines: types, operation, processing data and selection criteria
 Combine harvesters, olive harvester, grape harvester Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna MLazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the choeretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the final exam consists of an oral test concerning the topics developed during the theoretical lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The foral examinations are public. The evaluation of the students' actas republic. The evaluation of the students' actas degree. Evaluation criteria (Explain for each explained and comprehension ability The knowledge and understanding of the concepts concerning the expansed with a vote of the students' active prevision ability The knowledge and understanding of the concepts concerning the evaluation of the students' active prevision ability 		• Spreaders machines: types, operation, processing data and selection criteria
 Precision agriculture machines: main concepts Working times. Working capacity of agricultural machinery. Labor productivity in agriculture. Bibliography Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to arrivitary anarelytime archeineed value duning the Course will be the basic		• Combine harvesters, olive harvester, grape harvester
Course program - Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Treaching methods A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by a vote of the vote (30/30). For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each explane) • Know		 Precision agriculture machines: main concepts
Course program - Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two er(30/30). The oral examinations are public. The evaluation of the students' attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each explexed learning outcome what a student hat to konv, ori s able to The		Working times. Working capacity of agricultural machinery. Labor productivity in agriculture.
Course program Bibliography - Bodria - G. Pellizzi - P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.		
Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is abl		
Course program Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test pertinent is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to agricultural machines eva		
Bibliography - Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola. Edagricole. Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016 Notes The texts are reference both for theoretical and practical aspects. Teaching methods The course topics will be explained by using Power Point presentations. Assessment methods (indicate at least the type written, oral, other) A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able <t< td=""><td>Course program</td><td></td></t<>	Course program	
Edagricole, Bologna - M.Lazzari - F.Mazzetto Meccanica & Meccanizzazione dei processi produttivi agricoli. REDA, Torino 2016NotesThe texts are reference both for theoretical and practical aspects.Teaching methodsThe course topics will be explained by using Power Point presentations.Assessment methods (indicate at least the type written, oral, other)A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the final attainment and is valid for one academic year. The evaluation of the final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. The final exam spassed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to paricultural machines evaluated understanding of the concepts concerning the agricultural machines evaluated understanding of the concepts concerning	Bibliography	- Bodria – G. Pellizzi – P. Piccarolo. Meccanica e Meccanizzazione Agricola.
Image: Price Process and Process Production agricoli. REDA, Torino 2016 Notes Teaching methods Assessment methods (indicate at least the type written, oral, other) Ieast the type written, oral, other) The texts are reference both for theoretical and practical aspects. Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Assessment methods (indicate at least the type written, oral, other) Bases developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The student's attainment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students		Edagricole, Bologna Milazzaria E Mazzarta Massanica & Massanizzariana dai zrazaria zuduttivi
NotesThe texts are reference both for theoretical and practical aspects.Teaching methodsThe course topics will be explained by using Power Point presentations.Assessment methods (indicate at least the type written, oral, other)A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agrinultural machines explained during the Course will be the basic		agricoli REDA Torino 2016
Teaching methodsThe course topics will be explained by using Power Point presentations.Assessment methods (indicate at least the type written, oral, other)A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the final exam consists of an oral test pertinent to topics developed during the theoretical lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic	Notes	The texts are reference both for theoretical and practical aspects.
Assessment methods (indicate at least the type written, oral, other)A partial check is planned for students on going with the course year in which the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic	Teaching methods	The course topics will be explained by using Power Point presentations.
least the type written, oral, other)the teaching is carried out. This check consists of an oral test pertinent to topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and understanding of the concepts concerning the arricultural machines explained during the Course will be the basic	Assessment methods (indicate at	A partial check is planned for students on going with the course year in which
 topics developed during the theoretical lessons and exercise carried out until the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to or the knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic	least the type written, oral, other)	the teaching is carried out. This check consists of an oral test pertinent to
 the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to 		topics developed during the theoretical lessons and exercise carried out until
 b) the mini attainment and is valid for one academic year. The evaluation of the students' accomplishment is expressed by a vote of thirty. The partial check is passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to agricultural machines explained during the Course will be the basic 		the date of the check. The outcome of this check contributes to the evaluation of the final attainment and is valid for one academic year. The evaluation of the
 passed with a vote of at least 18/30. The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to agricultural machines explained during the Course will be the basic 		students' accomplishment is expressed by a vote of thirty. The partial check is
.The final exam consists of an oral test concerning the topics developed during the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		passed with a vote of at least 18/30.
the theoretical and practice lessons. The evaluation of the students' accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30.For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		The final exam consists of an oral test concerning the topics developed during
accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30. For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		the theoretical and practice lessons. The evaluation of the students'
For students who were undergone the partial check, the final evaluation is expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		accomplishment is expressed by a vote of thirty. The final exam is passed with a vote of at least 18/30.
expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of top vote (30/30). The oral examinations are public. The evaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course.Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to• Knowledge and comprehension ability o The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		For students who were undergone the partial check, the final evaluation is
Class degree can be attributed in the case of top vote (30/30).The oral examinations are public.The oral examinations are public.The evaluation of the student's attainment is in agreement with pre-establishedcriteria, as detailed in Annex A of the Academic Regulations for the AgriculturalTechnologies and Science Degree Course.Evaluation criteria (Explain for eachexpected learning outcome what astudent has to know, or is able to		expressed by the average of the votes obtained in the two oral tests. A first class degree can be attributed in the case of teo vote $(20/20)$
Intervaluation of the student's attainment is in agreement with pre-established criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to • Knowledge and comprehension ability		The oral examinations are public
 criteria, as detailed in Annex A of the Academic Regulations for the Agricultural Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to agricultural machines explained during the Course will be the basic 		The evaluation of the student's attainment is in agreement with pre-established
Technologies and Science Degree Course. Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to • Knowledge and comprehension ability • The knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic		criteria, as detailed in Annex A of the Academic Regulations for the Agricultural
Evaluation criteria (Explain for each expected learning outcome what a student has to know, or is able to		Technologies and Science Degree Course.
expected learning outcome what a o I he knowledge and understanding of the concepts concerning the student has to know, or is able to agricultural machines explained during the Course will be the basic	Evaluation criteria (Explain for each	Knowledge and comprehension ability
	student has to know, or is able to	 I ne knowledge and understanding of the concepts concerning the agricultural machines explained during the Course will be the basic

do, and how many levels of	elements for the student's assessment.	
achievement there are.	Knowledge and applied comprehension ability	
	• The student's ability to understand the constructive and functional aspects of the agricultural motor machines and implements.	
	Autonomy of judgement	
	 The student's ability to choose agricultural machines and its inclusion in the different farms, accordingly to the environment and the operators' health, will be another essential element of evaluation. 	
	Communication skills	
	 The student's ability to explain and motivate the choices made in the field of agricultural mechanization. 	
	Learning ability	
	 The student's ability to learn the operation of different agricultural machines on the basis of the knowledge gained during the Course will finally highlight the highest level of learning. 	
Further information	Visiting hours: Monday-Friday from 10.00 to 12.00 by appointment	
:		