General information		
Academic subject	**Advanced vegetable and floriculture crops (Module of Plant productions)**	
Degree course	**Master degree in Plant Medicine (LM69)**	
Academic Year	2021-2022 (first year, second semester)	
European Credit Transfer and Accumulation System (ECTS)		3
Language	Italian (English will be used when required for foreign students into didactic material)	
Academic calendar (starting and ending date)	March 1st -June17th 2022 (Pause 2022 April 20th – May 6th, for midterm exam)	
Attendance	Not mandatory	

Professor/ Lecturer	
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Department and address	Agricultural and environmental science
Virtual headquarters	M. Teams
Tutoring (time and day)	Every day by email

Syllabus	
Learning Objectives	The course aims to provide in-depth knowledge about: propagation techniques and the cultivation of vegetable and floriculture, with particular regard to systems and techniques capable of optimizing the propagation and production according to the biology and physiology of species, of the agro-environmental characteristics, of the quality standards of the product in relation to the commercial destination.
Course prerequisites	"Agronomy" and "Vegetable and floriculture crops" requests for admission to the Master course.
Contents	• Vegetable agrobiodiversity and Apulian local varieties, artichoke, cauliflower, broccoli, raabs, lattuce and leafy vegetables, tomato (1.5 ECTs; 10 h lectures + 4 h Lab & field cl.). • Product innovation: the Proteaceae, the light and its influence on the qualitative and quantitative aspects of production of ornamental species, the grown technique examples especially high (Orchids) and low (fronds) energy input (1 ECT; 6 h lectures + 3 h Lab & field cl.). • Visits to production and/or experimental farms (0.5 ECT; 7 h).
Books and bibliography	• Pardossi A., Gianquinto Prosdocimi G., Santamaria P., Incrocci L., Orticoltura. Principi e pratica (a cura di). Edagricole - New Business Media, Milano, 2018.

	• Hanan J.J., Greenhouses - Advanced Technology for Protected Horticulture. CRC Press, Boca Raton, 1998. • Larson R.A., Introduction to Floriculture. Accademic Press, New York, London, 1990
Additional materials	• Lecture notes provided by the teacher. • Technical reports and scientific articles.

Work schedule			
Total	Lectures	Hands on (Laboratory, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
Hours			
75	16	14	45
ECTS			
3	2	1	

Teaching strategy	
	During the health emergency imposed by the COVID-19 pandemic, lectures will be held remotely with the use of M. Teams. The topics of the course will be treated with the help of Power Point presentations and with the support of videos. Students will receive the pdf format of the frontal lesson with the addition of useful texts for their study to the images. Each lesson (ppt and pdf) will be enriched with curiosities, links, insights, exercises to be carried out and questions for self-verification. Laboratory activities, technical visits in the field and in leading companies will be carried out.
Expected learning outcomes	
Knowledge and understanding on:	Knowledge of design and sustainable management of integrated production of crops and vegetable and floriculture products to improve the qualitative, quantitative and sanitary aspects of production, post-harvest and marketing.
Applying knowledge and understanding on:	Ability in innovative design and management of integrated crop production (ICM) and vegetable and floriculture products to improve the qualitative, quantitative and sanitary aspects of vegetable and floricultural yield, post-harvest and marketing.
Soft skills	○ Making informed judgments and choices ○ Ability to analyze the different situations of a production and market environment, to plan and to manage actions to improve the quality and efficiency of vegetable and floriculture production, also in terms of sustainability and eco-compatibility. ○ The acquisition of judgment autonomy is verified by evaluation of the teaching. ○ Communicating knowledge and understanding

	○ Personal skills aimed at communication, multidisciplinary group work and judgmental skills both at the technical and the human and ethical levels. ○ Capacities to continue learning ○ Expected learning outcomes, as knowledge and ability, are reported in the annex A of the Didactic Regulation of the course Plant Medicine (expressed by European Descriptors).

Assessment and feedback	
Methods of assessment	Oral
Evaluation criteria	• Knowledge and understanding ○ Knowing how to design and manage the integrated production of crops and horticultural products in a sustainable way in order to improve the qualitative, quantitative and sanitary aspects of production, shelf life and marketing. • Applying knowledge and understanding ○ Being able to apply the main process and product innovations in the integrated production of crops (ICM) and horticultural products to improve the qualitative, quantitative and sanitary aspects of horticultural productions, shelf life and marketing. • Autonomy of judgment ○ Being able to critically evaluate the different situations of a production and market context, to plan actions and manage interventions to improve the quality and efficiency of horticultural productions, also in terms of sustainability and eco-compatibility. ○ Self-producing microgreens. ○ Conduct the crop cycle of the horticultural species studied. • Communicating knowledge and understanding ○ Assessment of personal skills, aimed at communication, multidisciplinary teamwork and judgment skills, both on a technical and human and ethical level, even during the course of teaching and in relation to the interactivity developed. • Communication skills ○ Personal skills aimed at communication, multidisciplinary group work and judgmental skills both at the technical and the human and ethical levels. • Capacities to continue learning ○ The expected learning outcomes, in terms of knowledge and skills, are shown in Annex A of the Degree Program Didactic Regulations (expressed through the European Descriptors of the qualification).
Criteria for assessment and attribution of the final mark	For students enrolled in the year in which the teaching is done, there will be a midterm exam as oral test. The evaluation of the students' tests takes place on the basis of pre-established criteria which include: a) consistency with the topics of the program, b) the quality of the processing,

	c) the ability to analyze, d) the level of structure of the arguments. The evaluation of the intermediate / final exam is expressed in thirties and the exam is passed when the grade is greater than or equal to 18. The final mark will consider the theoretical and practical knowledge acquired the ability to apply the knowledge, autonomy of judgment, communication skills and on the ability to integrate the acquired knowledge in a project work. The evaluation of the student is based on criteria previously fixed such as reported in the Annex A of the Didactic Regulation of the Master Course in Plant Medicine.
Additional information	
	Tutoring could be also on e-learning platforms.