

COURSE OF STUDY *Master's degree in Plant Medicine (LM69)*
ACADEMIC YEAR *2023-2024*
ACADEMIC SUBJECT *Phytosanitary regulations - Normative fitosanitarie; Module of Integrated Course in Standards on Quality (6 ECTS)*

General information	
Year of the course	<i>II year</i>
Academic calendar (starting and ending date)	<i>II semester (26-02-2024 – 14-06-2024)</i>
Credits (CFU/ETCS):	<i>3</i>
SSD	<i>Plant Pathology - AGR/12</i>
Language	<i>Italian</i>
Mode of attendance	<i>Strongly recommended</i>

Professor/ Lecturer	
Name and Surname	<i>Franco Nigro</i>
E-mail	<i>franco.nigro@uniba.it</i>
Telephone	<i>+39 080 5443609</i>
Department and address	<i>DiSSPA – Plant Pathology section - Third floor</i>
Virtual room	<i>Teams: Franco Nigro – franco.nigro@uniba.it</i>
Office Hours (and modalities: e.g., by appointment, on line, etc.)	<i>Please, contact the teacher via e-mail. Tutoring could be also on e-learning platforms.</i>

Work schedule			
Hours			
Total	Lectures	Hands-on (laboratory, workshops, working groups, seminars, field trips)	Out-of-class study hours/ Self-study hours
<i>75</i>	<i>16</i>	<i>14</i>	<i>45</i>
CFU/ETCS			
<i>3</i>	<i>2</i>	<i>1</i>	

Learning Objectives	<i>Provide advanced knowledge and professional skills suitable for the application of phytosanitary regulations in quality certification process for agricultural products.</i>
Course prerequisites	<i>Basic knowledges on diagnosis of plant pathogens, plant pathology, casual agents of plant disease.</i>

Teaching strategie	<i>The lectures will be delivered by frontal teaching. The lessons will be presented through PC assisted tools (PowerPoint presentations and short movies). Oral presentation will be supported by critical analysis of documents and continuous updating on reference websites. The knowledge of the techniques for the production of certified quality nursery material based of reference protocols will be acquired in the practical part of the course.</i>
Expected learning outcomes in terms of	
Knowledge and understanding on:	<ul style="list-style-type: none"> ○ Knowledge on phytosanitary regulations at National and European level relating to technical standards for the marketing of propagating material of fruit plants and fruit plants for fruit production ○ Knowledge on phytosanitary regulations and problems related to the

	production and sale of propagating material (certification programs)
Applying knowledge and understanding on:	<ul style="list-style-type: none"> ○ Ability to apply the phytosanitary measures for the production and the marketing of propagating plant materials
Soft skills	<ul style="list-style-type: none"> ● <i>Making informed judgments and choices</i> <ul style="list-style-type: none"> ○ Ability to analyze the different production and marketing issues, to apply phytosanitary measures for the control and management of quarantine and quality pathogens. ● <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ evaluation of the personal ability to communicate in oral form using technical language ● <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Ability to learn the protocols for the certification of plants and propagating materials.
Syllabus	
Content knowledge	<p><i>International, European, national and local phytosanitary regulations for the certification of agricultural products and propagating plant materials:</i></p> <p><i>Mandatory control:</i></p> <ul style="list-style-type: none"> ○ M.D. 14/04/1997 - Transposition of the Commission directives n. 93/48 / EEC of 23/06/93, n. 93/64/EEC of 5/7/1993 and n. 93/79/EEC of 21/09/1993 relating to “technical standards for the marketing of propagating material of fruit plants and fruit plants for fruit production (Conformitas Agraria Communitatis)” ○ M.D. 19/08/2005, n. 214 - Execution of Directive 2000/29/EC on “protective measures against the introduction into the Community of organisms harmful to plants or plant products and against their spread within the Community” (plant passport and quarantine pathogens) ○ New phytosanitary regulations from December 14th, 2019 - Regulation (EU) 2016/2031 of the European Parliament of the Council of 26 October 2016 on: protective measures against pests of plants; new plant passport; registration of official professional operators (Ruop) ○ Mandatory controls apply to specific quarantine pathogens <p><i>Voluntary certification of plant materials:</i></p> <ul style="list-style-type: none"> ○ Certification of nursery productions in Italy (compulsory and voluntary) form MM.DD. 24/07/2003, 4/05/2006, 20/11/2006, D.Lgs. 124/2010, D.M.D. 6/12/2016 to M.D. 19/03/2019 ○ Italian Quality System and D.Lgs 2/02/2021 n.18 and D.Lgs 1/09/2022 n.40: <ul style="list-style-type: none"> - Objectives - Utilization of the material - Principles and minimum conditions - Steps, categories, and health status of the material <p><i>Lab practices:</i></p> <ul style="list-style-type: none"> - use of micropropagation techniques for the production of certified material - visits to the sites of production of breeding and production of the nursery chain of quality at regional level.
Texts and readings	<ul style="list-style-type: none"> ● Phytosanitary regulations - official web sites: https://www.protezionedellepiante.it/servizio-fitosanitario/ ● http://www.sit.puglia.it/ ● https://www.eppo.int/ ● Book of Abstracts of National Congress “Certification of nursery

	<i>productions” - Locorotondo-Valenzano, October 14-15, 1999</i>
Notes, additional materials	In-depth learning is encouraged by consulting texts in English.
Repository	<i>The teaching material will be available in the Class Teams. The Teams code of the course will be provided at the beginning of the course attendance.</i>

Assessment	
Assessment methods	<i>The assessment of the knowledges acquired and the ability to apply them to practical problems will take place through an oral exam (see Didactic Regulation in Plant Medicine (art. 9) and in the syllabus, annex A). A minimum of 3 questions will be proposed to the student. Only the students enrolled in the academic year during which this module is provided, can have a midterm exam during the time of teaching. The result of it remains valid for the whole academic year and concurs to the final evaluation of the student (in proportion to the ECTS evaluated during the midterm exam).</i>
Assessment criteria	<ul style="list-style-type: none"> • <i>Knowledge and understanding</i> <ul style="list-style-type: none"> ○ Evaluation of the updated knowledge on phytosanitary regulations at National and European level relating to technical standards for the marketing of propagating material of fruit plants and fruit plants for fruit production. • <i>Applying knowledge and understanding</i> <ul style="list-style-type: none"> ○ Evaluation of the ability to apply the phytosanitary measures. • <i>Autonomy of judgment</i> <ul style="list-style-type: none"> ○ Evaluation of ability to analyze the different production and marketing issues, to apply phytosanitary measures for the control and management of quarantine and quality pathogens. • <i>Communicating knowledge and understanding</i> <ul style="list-style-type: none"> ○ Evaluation of the personal ability to communicate in oral form using technical language, to participate to multidisciplinary working groups • <i>Communication skills</i> <ul style="list-style-type: none"> ○ Evaluation of the ability to organize the acquired knowledge in form of didactic presentation and to articulate it for didactic purposes. • <i>Capacities to continue learning</i> <ul style="list-style-type: none"> ○ Evaluation of the ability to learn the protocols for the certification of plants and propagating materials.
Final exam and grading criteria	<i>The evaluation is awarded out of thirty, with the possibility of laude, based on autonomy of judgment and student's ability. For students who have taken the midterm exam during the time of teaching, the evaluation of the exam is expressed as the average between the two evaluations. The exam is passed when the final evaluation is greater than or equal to 18/30.</i>
Further information	
	.