

COURSE: Post-harvest pathology

ACADEMIC YEAR: 2016/2017

TYPE OF EDUCATIONAL ACTIVITY: Characteristic

TEACHER: Prof. Maria Nuzzaci

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mobile (optional): +393204238710

Language: Italian

ECTS: 7 (5 of lessons and 2 of laboratory/practice)	n. of hours: 62 (40 of lessons and 32 of labs/practice)	Campus: Potenza School: SAFE Program: Food Technology	Semester: II
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EDUCATIONAL GOALS

The aim of the course is to provide basic knowledge for the study and identification of disorders and diseases induced by biotic and abiotic agents on foodstuffs for fresh consumption, processing and storage, as well as to perform and monitor the effectiveness of strategies, means and methods for diseases control based on safeguard of quality.

EXPECTED LEARNING OUTCOMES

At the end of the course, the students will be able to develop and implement post-harvest disease strategies, to work in laboratories for isolation and identification of micro-organisms of interest for the products and foodstuffs plants and continuation of the studies on postharvest diseases

PRE-REQUIREMENTS

Students wishing to access this teaching are advised to have a good grounding in the foundations of mathematics, physics, general and organic chemistry as well as elements of plant biology.

SYLLABUS

Lessons

Introduction to plant pathology; losses and importance of the diseases in post-harvest. Main causal agents, disease cycle and disease development; Post-harvest disease of fruit and vegetables. Epidemiology. Symptoms and effects of the diseases on plant morphology and physiology. Host-parasite relationships. Diagnosis; Mycotoxin-producing fungi, Non parasitic disease, Management of post-harvest disease. Chemical, physical, biological control. Disinfestation of facilities. Laboratory study if causal agents of post-harvest disease, food safety, pesticide use and human and environment health.

Practices

Laboratory experiments for the isolation, identification of plant pathogenic fungi and bacteria.

TEACHING METHODS

Theoretical lessons. Laboratory tutorials. The topics of the course will be treated with the help of Power Point presentations both for lectures and for the laboratory exercises. Laboratory exercises using pure fungal and bacterial cultures and diseased horticultural and fruit products to teach the students to diagnose the main diseases.

EVALUATION METHODS

Verifying the learning of teaching is to find the level of achievement of the previously mentioned educational goals and is through an oral examination.

TEXTBOOKS AND ON-LINE EDUCATIONAL MATERIAL

- Fondamenti di Patologia Vegetale, Ed. Patron, di A. Matta;



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- Patologia Postraccolta dei Prodotti Vegetali, di De Cicco et al., Piccin Editore
 - Plant Pathology, IV Edizione, di Agrios George N., Academic Press.
 - Schede Fitopatologiche di I. Ponti e F. Laffi, Ed agricole.
 - Süss L., Locatelli D.P., I parassiti delle derrate. Calderini Edagricole, Bologna, 2001.
 - Trematerra P., Gentile P., Gli animali infestanti in molini e pastifici. Chiriotti Editori, 2008.
 - Snowdon A.L. A colour atlas of post-harvest diseases & disorders of fruit & vegetables. Vol. 1 e 2, Wolfe Scientific ed., London, 1990.
 - R. Barkai-Golan (2001) "Postharvest Diseases of Fruits and Vegetables: development and control". Elsevier, Londra.
 - <http://www.extension.umn.edu/yardandgarden/diagnostics/>

Lecturer's note of the course and PDF files, reprints, ect.

INTERACTION WITH STUDENTS

At the beginning of the course, after describing the objectives, program and methods of verification, the teacher collects the list of students accompanied by name and email.

The teacher receives generally on Monday and Thursday from 9.00 to 11.00 in the teacher's study (SAFE 4th floor, Viale Dell'Ateneo Lucano, Potenza) and she is available at all times for a contact with the students, through its e-mail or telephone.

EXAMINATION SESSIONS (FORECAST)

14/09/2016, 13/10/2016; 10/11/2016; 12/12/2016; 16/01/2017; 14/02/2017; 13/03/2017; 19/04/2017; 11/05/2017; 15/06/2017; 12/07/2017.

SEMINARS BY EXTERNAL EXPERTS	YESx	NO
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FURTHER INFORMATION

EXAMINATION BOARD

President : Prof.ssa Maria NUZZACI

Member : Prof. Ippolito CAMELE
