

Basic Information

Course Code	
Course Title	Quarantine and phytosanitary techniques
Academic Year	2022/2023
Academic Program	New Professional Diploma in Plant Clinic and Phytosanitary Technologies
Hours/week semester	Lectures: 1 Practical: 2 total: 2

Course Description: Description and related Topics: Definition of pests, pesticides and genetically modified substances. Attention; The importance of quarantine - local and international. Quarantine restrictions on the movement of agricultural products, seeds and planting materials; Case history of pests/diseases and plant protection organization in Egypt. Business related to the registration of pesticides. History of Quarantine Legislation,. Environmental Laws, Industrial Registration, Import and Export of Biocides. Identify pest/disease free areas; Symptomatic diagnosis and other techniques that detect pests/pathogens; VHT and other safer techniques for disinfection/rescue of infected material. WTO regulations; non-tariff barriers; Pest risk analysis. Sanitary and Phytosanitary Measures

1. Course Aims

- 1.1- Know the importance of quarantine - local and international
- 1.2- Recognize the Quarantine restrictions on the movement of agricultural products, seeds and planting materials
- 1.3- Define the case history of pests/diseases and plant protection organization in Egypt
- 1.4- Recognize Business related to the registration of pesticides. History of Quarantine Legislation
- 1.5- Describe the Symptomatic diagnosis and other techniques that detect pests/pathogens; VHT and other safer techniques for disinfection/rescue of infected material
- 1.6- Detect the Pest risk analysis. Sanitary and Phytosanitary Measures

2. Intended Learning Outcomes

2.1. Knowledge and Understanding

On successful completion of this course, the student should be able to

- 2.1.1- Mention the different quarantine restrictions methods on the movement of agricultural products
- 2.1.2- Understand the business related to the registration of pesticides.
- 2.1.3- Know the symptomatic diagnosis and other techniques that detect pests/pathogens
- 2.1.4- Recognize the Pest risk analysis. Sanitary and Phytosanitary Measures
- 2.1.5- Definition of pests, pesticides and genetically modified substances
- 2.1.6- Mention the history of Quarantine Legislation

2.2. Intellectual Skills

By the end of this course, the student should be able to

- 2.2.1- Conclude the quarantine restrictions methods
- 2.2.2- Evaluate the movement of agricultural products, seeds and planting materials by quarantine methods
- 2.2.3- Employs the , industrial registration, import and export of biocides.

2.2.4- Assess the using of integrated pest control program

2.3. Practical and Professional Skills

By the end of this course, the student should be able to

2.3.1- Distinguish between the symptoms of various insect pests and determine the time of their occurrence

2.3.2- Determine quarantine methods

2.3.3- Utilize standard laboratory procedures and techniques in quarantine and phytosanitary

2.3.4- Quarantine programs to manage insect and mite pests on agricultural crops

2.4. General and Transferable Skills

By the end of this course, the student should be able to

2.4.1- Writes and presents specialized reports to explains different phenomena

2.4.2- Think independently, and solve problems on scientific basis

2.4.3- Communicates with colleagues and works in a research team

2.4.4- Identify roles, tasks, and set clear guidelines and performance indicators

2.4.5- Demonstrates self-learning and continuous capabilities to develop professional skills

2.4.6- Address the community linked problems with considerable attention to the community ethics and traditions

Course content

Topics	Total (hr)	Lectures (hr)	Practical (hr)
Introduction and overview to the importance of quarantine - local and international	4	2	4
Quarantine restrictions on the movement of agricultural products, seeds and planting materials	4	2	4
Case history of pests/diseases and plant protection organization in Egypt	4	2	4
Business related to the registration of pesticides. History of Quarantine Legislation	4	2	4
Laws, Industrial Registration, Import and Export of Biocides. Identify pest/disease free areas	4	2	4
Symptomatic diagnosis and other techniques that detect pests/pathogens	4	2	4
Different techniques for disinfection/rescue of infected material	2	1	2
Regulations; non-tariff barriers; Pest risk analysis. Sanitary and Phytosanitary Measures	2	1	2
Total	28	14	28

4. Teaching and Learning Methods

Lectures: Interactive lectures through:

- Teaching lectures to gain knowledge and understanding skills
- Seminars
- Group discussions

Practical sessions:

- Laboratory lessons (Practical sessions) to gain practical skills

	<ul style="list-style-type: none"> • Field visits
Self-Learning activities:	<ul style="list-style-type: none"> • Assays and reporting in different topics • Analyze the results and reach specific conclusion • Sample collection, preservation, examination and identification

5. Teaching and Learning Methods for Students of Limited Capabilities

- Additional revisions for previously taught and difficult topics
- Providing a summary for previous chapter at the end of each one
- Following up student feedbacks

6.1. Methods	6. Student Assessment			
	Intended Learning Outcomes Covered			
	KU	IS	PPS	GTS
Written exams	2.1.1/2.1.2/2.1.3/2.1.4/2.1.5	2.2.1/2.2.2/2.2.3/2.2.4		
Practical exams			2.3.1/2.3.2/2.3.3/2.3.4	
Oral exams		2.2.1/2.2.2/2.2.3/2.2.4		2.4.1/2.4.2/2.4.3/2.4.4/2.4.5/2.4.6
Student activities				2.4.1/2.4.2/2.4.3/2.4.4/2.4.5/2.4.6

KU, knowledge and understanding; IS, intellectual skills; PPS, practical and professional skills; GTS, general and transferable skills

6.2. Exam Description

Written exams	<ul style="list-style-type: none"> • Short essays • Drawing • Multiple choice questions • Comparisons • Giving the scientific term/information • Reasons for what comes
Practical exams	<ul style="list-style-type: none"> • Slideshow exams • Practical case studies • Exams on plants of the faculty farm
Oral exams	<ul style="list-style-type: none"> • The exam committee involves at least 3 examiners • Each evaluates the student by giving a separate score • The scores are then averaged • The student randomly selects question cards
Student activities	<ul style="list-style-type: none"> • Self-learning activities are evaluated throughout the semester

6.3. Assessment Schedule

6.4. Weighing of Assessments

Exams and activities	Week (in each semester)	Total (%)
Semester work exam	4 th , 8 th and 12 th	10
Student activities	Throughout the semester	10
Final written exam	15 th	50
Final Practical exam	15 th	20
Final oral exam	15 th	10
Total		100

7. List of References

7.1. Course Notes

Course notes will be given at the beginning of each lecture

7.2. Essential Books

- 1- Chapman, R.F. 1979. The insects: Structure and function. Elsevier Publishing Co., NewYork
- 2- Robert E. Pfadt (1985). Fundamentals of applied entomology (Edn 4). MacMillan Pub Co ISBN
- 3- Fenemore, P. G. (2006). Applied entomology. New Age International.
- 4- D. Dent (2000) Insect Pest Management. Oxford University Press US (CABI Publishing); ISBN.

7.3. Recommended Books

- 1- Wylie, F. R., & Speight, M. R. (2012). Insect pests in tropical forestry. CABI.
- 2- Paull, R. E., & Armstrong, J. W. (1994). Insect pests and fresh horticultural products. Treatments and responses.
- 3- Horowitz, A. R., & Ishaaya, I. (2004). Insect pest management: field and protected crops. Springer Science & Business Media.

7.4. Periodicals, websites, etc.

- Journal of Economic Entomology
- Journal of Applied Entomology
- Journal of Plant Protection Research
- Environmental Entomology

Course coordinator:

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