



**Benha University
Faculty of Science
Department of Entomology**



Economic Insect Diploma Program Specification



Economic Insect Diploma Program Specification

A. Basic Information

Program Title:	Economic Insect Diploma Program.
Program Type:	Single
Department:	Entomology Department
Coordinator:	Prof. Dr./Faten F. Abo El Dahab
Assistant Co-ordinator:	Assistant Prof. Mona F. Abd El Aziz

This program is now reviewed by external evaluator and internal evaluator.
External evaluator: Prof. Dr. Ahmed Hassan Aboghalia.
Internal evaluator: Prof. Dr. Abd Elwahab Abd El Maksoud.
Dates of program specifications approval: 9/12/2015

B. Professional Information

1. Program general aims

The overall aims of the programme are to provide the graduate with the following:

- a. Enhance the graduate knowledge and skills in entomological sciences and their related disciplines, applications and tools to the management/solution of the scientific problems related to economic insect.
- b. Increase the ability and participation of the graduate in the development and implementation of entomological studies policies, strategies and planning as well as collecting, summarizing, presenting data and undertaking professional and ethical responsibilities.
3. Demonstrate essential knowledge, from an integrated point of view, of theories, facts, concepts and essentials of entomology and microbiology.
- c. Show awareness of ongoing problems and visions in modern field of economic insect.
- d. Broadcast the experience through effective interaction to enhance the performance of the profession and promote community development, keeping the ethics of scientific research.
5. Prepare graduates to be able to undertake a professional research-related career in fields of entomology and chemistry with minimum of further format training
- e. Work effectively in a team and possess the management and communication skills.

2. Intended Learning Outcomes (ILO's)

2.a. Knowledge and Understanding

On successful completion of the programme, the graduate will be able to:

- a.1 Mention theories and bases of entomological sciences and the other related fields.
- a.2 Understand the mutual influence between the professional practices of entomological science and its reflection in the economical plants
- a.3 Show the new in scientific progress in the area of insect economic.
- a.4 Choose the methods applied for interpreting and analyzing biological information.
- a.5 Understand the recent experimental methodology in economic insect.
- a.6 Indicate the principles of quality in the professional practice in economic insect.



2.b. Intellectual Skills

By the end of the programe, the graduate will be able to:

- b.1. Apply the knowledge and understanding emphasis in solving problems.
- b.2. Evaluate the methodological scientific study based on research problems.
- b.3. Examine critically scientific evidence, both quantitative and qualitative, in order to arrive at evidence-based conclusions.
- b.4. Make decisions in various professional contexts.
- b.5. Make a plan to develop performance in the area of entomological sciences.
- b.6. Evaluate the risks in professional practices in the area of economic insect.
- b.7. Analyze and estimate knowledge in the area of economic insect.
- b.8. Read and understand scientific figures and writing.

2.c. Professional and Practical Skills

By the end of the programe, the graduate will be able to:

- c.1 Apply perfectly the bases and modern professional skills in economic insect.
- c.2 Use instruments with accuracy in experimental data.
- c.3 Write and evaluate professional report in entomological fields.
- c.4 Use approximate methods and tools in the area of entomological sciences
- c.5 Prepare and develop annual management plans based on scientific observation.
- c.6 Make professional decisions in professional practices in the field of insect.

2.d. General Skills

By the end of the programe, the graduate will be able to:

- d.1 Communicate and exchange the information effectively through seminars and discussion meetings..
- d.2 Life-long learning and self-development.
- d.3 Present information and express ideas through writing essays and orally.
- d.4 Work in team and comprehend and assume the interchangeable role of leaders and followers.
- d5 Possess good project management.
- d6 Use and search for information technology.

3- Academic standards of the program

The Academic Reference Standards (ARS) of this program is based upon Standard Criteria for Postgraduate Programs published by the National Authority of Quality Assurance and Accreditation of Education in (2009). Specific Academic Reference Standards for Diploma in Entomology were approved by the Council of Faculty of Science, Benha University in --/--/2015 (Appendices 1, 2, 3, 4, 5 and 6).

4- Reference indices (Benchmarks): Not utilized

5- Program structure and contents

a. Program duration: one year

b. Program structure



To acquire Master's degree in science in Insect Ecology Diploma Program, student should be performed the number of 24 credit hours of study (15 compulsory and 9 optional) of courses for the post-bachelor's in addition to the record number of 24 credit hours of scientific message during the study period.

Program structure	Credit hours
Compulsory	18
Optional	6
Elective	0
Total	24

c. Program Courses:

c.1. Compulsory courses:

Code No.	Course Title	No. of Units	No. of hours/Week			Level
			Lect.	Eer.	Prac.	
501E	Agricultural insect pests	3	2	-	2	
504E	Ecology and environmental pollution	3	2	-	2	
505E	Agricultural insect pest control	3	2	-	2	
506E	Insect control devices	3	1	-	2	
507E	Security and safety in pest control	1	1	-	0	
517E	Modern Pesticides	3	2	--	2	
518E	Insects and plant diseases	3	2	-	2	

c.2 Elective courses:

Code No.	Course Title	No. of Units	No. of hours/week			level
			Lect.	Exer.	Prac.	
509E	Morphology and Taxonomy	3	2	-	2	
511E	Insect Physiology	3	2	-	2	
513E	Insect Biotechnology	3	2	-	2	
514E	Selected Topics	3	3	-	0	
519E	Biological control	3	3	-	2	
520E	Insect Behavior	3	2	-	2	



6- Contents of the Courses

See course specification (Appendix 8)

7- Program admission requirements:

1. يشترط لقياد الطالب لأى من دبلومات الدراسات العليا ان يكون حاصلًا على درجة البكالوريوس فى العلوم من احدى الجامعات او درجة معادلة لها من معهد علمى معترف به من المجلس الاعلى للجامعات وفقاً لشروط القبول فى كل دبلوم.
- 2- مدة الدراسة عام دراسى واحد.

8- Regulations for progression and program completion:

- 1- شرط حصول الطالب على درجة الدبلوم اجتياز عدد ٢٤ ساعة دراسية معتمدة منها ١٨ ساعة معتمدة مقررات اجبارية و ٦ ساعات دراسية معتمدة مقررات اجبارية.
- 2- يخصص لكل ساعه معتمدة خمسون درجة.
- 3- تعقد امتحانات الدراسة الخاصة بالدبلومة فى نهاية كل فصل دراسى فى المواعيد التى يقرها مجلس الكلية بناء على اقتراح لجنة الدراسات العليا ويشترط لنجاح الطالب فى المقررات الدراسية ان يكون حاصلًا فى كل مقرر على تقدير C على الاقل.
- 4- الطالب الذى يرسب فى اى مقرر اجبارى عليه اعادة دراسة ذلك المقرر و الامتحان فيه وفى حالة رسوبه فى مقرر اختياري فعليه دراسة ذلك المقرر او اختيار مقرر اخر بديل لة ويدخل تقدير المقرر فى كلا حالتى الرسوب والنجاح فى حساب المعدل الفصلى او التراكمى.

9- Methods and rules of evaluation of students enrolled in the program:

9.1. Theoretical courses

Method of Assessment	Marks	learning outcomes assessed	Weighting
Midterm exam & Semester work	10	Measure knowledge, understanding (a.1-a.3), intellectual skills (b.1, b.5), professional (c.1) and general skills (d.1, d.3)	10%
Final Oral Exam	10	Measure knowledge, understanding (a.2,a.4), intellectual skills (b.3-b.5), and general skills (d.3, d.6-d.7)	10 %
Final Term Examination	80	Measure knowledge, understanding (a.1-a.3, a.5,a.7), intellectual skills (b.1-b8)	80%
Total	100		100%



9.2 Diploma thesis evaluation

- The senior supervisor reports.
 - Individual Reports of the Judge Committee (Three specialist professors including the senior supervisor).
 - The Public Discussion
 - The Common Report of the Judge Committee.
 - Department, Faculty and University Boards.
- Assessment Recommendations:
- The Judge Committee has to recommend one of the following:
 - Accepting the thesis as it is.
 - Accept the thesis and recommends awarding after correction performing.
 - Delaying awarding for maximum three months to perform corrections.
 - Re-displaying the thesis to the judge committee within limited period.
 - Rejecting the thesis at all.

10. Teaching and learning strategies used in the program:

- a. Direct teaching strategy.
- b. Cooperative learning strategy.
- c. Brainstorming strategy.
- d. Problem-solving strategy.
- e. Effective discussion strategy.
- f. Independent Study strategy.

11. Evaluation of program:

Evaluator	Tool	Sample
1- Internal Evaluators	Reports	Reports 1-2
2- External Evaluators	Reports	Reports 1-2
3- Senior Students	Questionnaire	Questionnaire not less than 25%
4- Alumni	Questionnaire	Questionnaire not less than 25%
5- Stakeholders	Questionnaire, interview	Representative for all sectors

The personal responsible for the program: Prof. Dr. Faten Faried Abu Eldahb

Signature:

Prof. Dr. Faten Faried Abu Eldahb

Date:

2014/2015



**Benha University
Faculty of Science
Department of Entomology**



Medical and Veterinary Entomology Diploma Program Specification



Medical and Veterinary Entomology Diploma Program Specification

A. Basic Information

Program Title:	Medical and Veterinary Entomology Program.
Program Type:	Single
Department:	Entomology Department
Coordinator:	Prof. Dr./Abdelwahab Ibrahim
Assistant Co-ordinator:	Prof. Dr./Faten F. Abo El Dahab

This program is now reviewed by external evaluator and internal evaluator.
External evaluator: Prof. Dr. Ahmed Hassan Aboghalia.
Internal evaluator: Prof. Dr. Abd Elwahab Abd El Maksoud.
Dates of program specifications approval: 9/12/2015

B. Professional Information

1. Program general aims

The overall aims of the programme are to provide the graduate with the following:

- a. Learn advanced subjects related to entomological sciences and their related disciplines, applications in medical and veterinary entomology.
- b. Increase the ability and participation of the graduate in the development and implementation of entomological studies policies, strategies and planning. 3. Show awareness of ongoing problems and visions in modern field of economic insect.
- c. Apply gained knowledge of epidemiology in a practical manner and report on practice, and critically evaluate the outcomes.
- d. Abide by ethics which related to the environment preservation and human health and
- e. Work effectively in a team and possess the management and communication skills.

2. Intended Learning Outcomes (ILO's)

2.a Knowledge and Understanding

On successful completion of the programme, the graduate will be able to:

- a.1 Mentions different ecological systems, epidemiology and disease transmission and effect of pollution on biological system.
- a.2 Understand the mutual influence between the professional practices of entomological science and epidemiology.
- a.3 Show the recent experimental methodology in Medical and veterinary insect..
- a.4 Indicate the principles, procedures and techniques used in analyzing biological information
- a.5 Know the recent experimental methodology in medical entomology

2.b. Intellectual Skills

By the end of the programme, the graduate will be able to:



- b.1 Link and integrate subject-specific theories, concepts and principles.
- b.2 Write a methodological scientific study on research problems.
- b.3 Make decisions in various professional contexts.
- b.4 Plan to develop performance in the area of entomological sciences.
- b.5 Evaluate the risks in professional practices in the area of medical entomology..
- b.6 Examine critically scientific evidence, both quantitative and qualitative, in order to arrive at evidence-based conclusions.
- b.7 Analyze and estimate knowledge in the area of medical entomology
- b.8 Read and understand scientific figures and writing

2.c. Professional and Practical Skills

On successful completion of the graduates of the chemistry program should be able to:

- c.1 Write reports on the data in accordance with the standard scientific guide lines.
- c.2 Use instruments with accuracy in experimental data.
- c.3 Write and evaluate professional report in entomological fields Use approximate
- c.4 Approximate methods and tools in the area of entomological sciences
- c.5 Prepare and develop annual management plans based on scientific evidence.
- c.6 Analyze various biological and others samples.

2.d. General Skills

By the end of the programe, the graduate will be able to:

- d.1 Use computers and internet for communication, data handling and word processing.
- d.2 Life-long learning and self-development.
- d.3 Present information and express ideas through writing essays and orally.
- d.4 Work in team and comprehend and assume the interchangeable role of leaders and followers.
- d.5 Solve problems on scientific basis.
- d.6 Search for information and engage in life-long self learning discipline

3- Academic standards of the program

The Academic Reference Standards (ARS) of this program is based upon Standard Criteria for Postgraduate Programs published by the National Authority of Quality Assurance and Accreditation of Education in (2009). Specific Academic Reference Standards for Ph.D. in Entomology were approved by the Council of Faculty of Science, Benha University in --/--/2015 (Appendices 1, 2, 3, 4, 5 and 6).

4- Reference indices (Benchmarks): Not utilized

5- Program structure and contents

a. Program duration: one years

b. Program structure



Program structure	Credit hours
Compulsory	18
Optional	6
Elective	0
Total	24

c. Program Courses:

c.1. Compulsory courses:

Code No.	Course Title	No. of Units	No. of hours/Week			Level
			Lect.	Eer.	Prac.	
502E	Advanced medical and Veterinary Entomology	3	2	-	2	
503E	Medical and veterinary insect control	3	2	-	2	
504E	Ecology and environmental pollution	3	2	-	2	
506E	Insect control devices	3	2	-	2	
507E	Security and safety in pest control	1	1	-	0	
512E	Parasitology and immunology	3	2	--	2	
515E	Insect microbiology	3	2	-	2	

c. Elective courses:

Code No.	Course Title	No. of Units	No. of hours/week			level
			Lect.	Exer.	Prac.	
508E	Aquatic insects	3	2			
509E	Morphology and Taxonomy	3	2	-	2	
511E	Insect Physiology	3	2	-	2	
512E	Parasitology and immunity	3	3	-	2	
513E	Insect Biotechnology	3	2	-	0	
514E	Selected Topics	3	3	-	2	
516E	Therapy by bee products	3	2			



6- Contents of the Courses

See course specification (Appendix 8)

7- Program admission requirements:

1. يشترط لقبول الطالب لأى من دبلومات الدراسات العليا ان يكون حاصلًا على درجة البكالوريوس فى العلوم من احدى الجامعات او درجة معادلة لها من معهد علمى معترف به من المجلس الاعلى للجامعات وفقا لشروط القبول فى كل دبلوم.
- 2- مدة الدراسة عام دراسى واحد.

8- Regulations for progression and program completion:

- 1- شرط حصول الطالب على درجة الدبلوم اجتياز عدد ٢٤ ساعة دراسية معتمدة منها ١٨ ساعة معتمدة مقررات اجبارية و ٦ ساعات دراسية معتمدة مقررات اجبارية.
- 2- يخصص لكل ساعه معتمدة خمسون درجة.
- 3- تعقد امتحانات الدراسة الخاصة بالدبلومة فى نهاية كل فصل دراسى فى المواعيد التى يقرها مجلس الكلية بناء على اقتراح لجنة الدراسات العليا ويشترط لنجاح الطالب فى المقررات الدراسية ان يكون حاصلًا فى كل مقرر على تقدير C على الاقل.
- 4- الطالب الذى يرسب فى اى مقرر اجبارى عليه اعادة دراسة ذلك المقرر و الامتحان فيه وفى حالة رسوبه فى مقرر اختياري فعليه دراسة ذلك المقرر او اختيار مقرر اخر بديل لة ويدخل تقدير المقرر فى كلا حالتى الرسوب والنجاح فى حساب المعدل الفصلى او التراكمى.

9- Methods and rules of evaluation of students enrolled in the program:

9.1 theoretical courses

Method of Assessment	Marks	learning outcomes assessed	Weighting
Midterm exam & Semester work	10	Measure knowledge, understanding (a.1-a.3), intellectual skills (b.1, b.5), professional (c.1) and general skills (d.1, d.3)	10%
Final Oral Exam	10	Measure knowledge, understanding (a.2,a.4), intellectual skills (b.3-b.5), and general skills (d.3, d.6-d.7)	10 %
Final Term Examination	80	Measure knowledge, understanding (a.1-a.3, a.5,a.7), intellectual skills (b.1-b8)	80%
Total	100		100%



9.2 Diploma thesis evaluation

- The senior supervisor reports.
- Individual Reports of the Judge Committee (Three specialist professors including the senior supervisor).
- The Public Discussion
- The Common Report of the Judge Committee.
- Department, Faculty and University Boards.

- Assessment Recommendations:

- The Judge Committee has to recommend one of the following:

- Accepting the thesis as it is.
- Accept the thesis and recommends awarding after correction performing.
- Delaying awarding for maximum three months to perform corrections.
- Re-displaying the thesis to the judge committee within limited period.
- Rejecting the thesis at all

10. Teaching and learning strategies used in the program:

- a. Direct teaching strategy.
- b. Cooperative learning strategy.
- c. Brainstorming strategy.
- d. Problem-solving strategy.
- e. Effective discussion strategy.
- f. Independent Study strategy.

11. Evaluation of program:

Evaluator	Tool	Sample
1- Internal Evaluators	Reports	Reports 1-2
2- External Evaluators	Reports	Reports 1-2
3- Senior Students	Questionnaire	Questionnaire not less than 25%
4- Alumni	Questionnaire	Questionnaire not less than 25%
5- Stakeholders	Questionnaire, interview	Representative for all sectors

The personal responsible for the program: Prof. Dr. Faten Faried Abu Eldahb

Signature:

Prof. Dr. Faten Faried Abu Eldahb

Date:

2014/2015