A- Basic Information

Title: Advanced genetic Code: E 6620

Credit Hours: 2 hrs

Lecture: 2 Tutorial: 0 Practical: 0 Total: 2

B- Professional Information

1- Overall Aims of the Course: By the end of this course, the student should be able to

* Identify the DNA degradation. * understand the apoptosis in insect. * RNA interference.

* Approaches to transcripition. * Identify role of microbial toxin with the insect protein.* insect resistance.

2- Intended Learning Outcomes of Course (ILOs):

a- Knowledge and Understanding:

a1- Define the mutagenic agents and their classifications.

a2- Understand different types of mutations.

a3- Describe some cases of genetic disorders.

b- Intellectual Skills:

b1- Conclude the mutagenic substances.

b2- Evaluate different types of mutations.

b3- Diagnose some genetic disorders induced by mutagens.

c- Professional Skills:

c1- Distinguish between mutagens

c2- Demonstrate the mechanisms of mutations.

c3- Designing and carrying out experiments based on different mutation tests.

d- General and Transferable Skills:

d1- Write reports about some genetic disorders.

d2- Computer-based mining of databases and references about mutations and mutagens

3- Contents

Topic	No. of Hours	Lecture	Tutorial / Practical
Basic princeples	2	2	0
General Entomology	2	2	0
the DNA degradation	2	2	0
apoptosis in insect	2	2	0
Insect taxonomy	2	2	0
RNA interference	2	2	0
transcripition	2	2	0
microbial toxin	2	2	0
insect resistance	2	2	0

4- Teaching and Learning methods

* Oral and writer *Video presentation
*Poster presentation *Projector presentation
*Lab top presentation

5- Student assessment methods

* Tables and models *Report per week
*Med term exam. To assess success * Final term exam. to assess success
* Oral exam. Per week

Weighting of assessments

Mid-term examination 20
Final-term examination 40
Oral examination 20

Semester work 20
Other type of assessment 0
Total 100%

6- List of references

*Course notes: Present note and similar notes *Essential books: Text books of general Entomology.*Text books of insect genetics *Recommended book: 1- Insect Physiology . 2-Insect morphology . 3- insects resistance.5- Molecular biology.

* Periodical e.g. Journal of general entomology, J. of applied entomology. J. of science. American J. of molecular biology and J. of American genetics of insects

7- Facilities required for teaching and learning

*Journey and visits of different ecological natures. * Dark room for presentation
* lab. Top. *- Computer *-LCD projector * Video * Internet

Course coordinator: Prof. Mohamed Elsayed Khalil

Head of Department: Prof. Saber A.Sakr