**The University of Jordan**

**Faculty of Agriculture**

**Department of Horticulture and Crop Science**

**2015-2016**

**/ Second Semester**

**pre-requisite: General Biology, Code: 315**

**Course Title: Industrial Crops**

**Course Code: ( 0601330 )**

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| **Credit** **hours** | **Office** |  **E-mail** |
| **Number** | **Phone** | **Hours** |
| **Lec.** | **Lab.** |
| **Ass.Prof Talal Thalji** | **-** | **++962-5355000/22344** | **Sun,****Tue,****Thu.****8:00 am- 9:00 am** | **Tue.,****Thu.****3:00pm-6:00 pm** | **tthalji@yahoo.com** |

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| **Office hours** |
| **Day/Time** | **Sunday** | **Monday** | **Tuesday** | **Wednesday** | **Thursday** |
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**Course Description**

Economic importance , Geographical distribution, crops original, botanical and utilization characters, crops classification and description, areas of production. Suitable environments agriculture and industrial practice, method of utilization.

**Learning Objectives**

Successful completion of this course, students will be able:

To initiate and develop the essential features and basic principles of industrial crops,

and to relate them to practical procedures in relation to their management and production.

To Familiarize the students with the established methods and techniques used in

industrial crops.

To identify, explain and describe primary and various production, and processing,

pre-harvesting practices used in industrial crops.

To increase the level of understanding, ability, interests and motivation of the students

in industrial crops. Successful completion of this course, students will be able to:

**Intended Learning Outcomes (ILOs):**

Successful completion of the course should lead to the following outcomes:

**A. Knowledge and Understanding: Student is expected to be introduced**

**A1**- to over forty species of field crops

**A2**- most current principles and practices used in crop production.

**B**. **Intellectual Analytical and Cognitive Skills: Student is expected to**

**B1**- to learn about the botanical characteristics

**B2**- economic importance, history and adaptation of the various species

**C.** **Subject- Specific Skills: Students is expected to learn**

**C1**- how science and technology are impacting their production

**C2**- how plants grow and respond to their environment

**C3**-how to deal biotechnology and crop improvement

**D**. **Transferable Key Skills: Students is expected to deal with**

**D1**- knowledge about field crops regarding their use

**D2**- and period of growth and development.

# ILOs: Learning and Evaluation Methods

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| **ILO/s** | **Learning Methods** | **Evaluation Methods** |
| **A. Knowledge and**  **understanding** | **Lectures and Discussions,**  | **Exam, Quiz, presentation,**  |
| **B. Intellectual Analytical and**  **Cognitive Skills** | **Lectures and Discussions,** | **Exam, Quiz, presentation,** |
| **C. Transferable Key Skills** | **Lectures and Discussions,** | **Homework and Assignments, Projects, Presentation,** |

**Intended Learning Outcomes (ILOs):**

Successful completion of the course should lead to the following outcomes:

**A. Knowledge and Understanding:** Student is expected to **know**

**A1-** International centers and locations of Origins & Production

**A2-** Botanical description for Stimulant Crops [Tobacco, Coffee],

 Seasoning and Medicinal Crops [Cumin, Black Cumin, Roselle], Textile crops [ cotton, Flax, Kapok,

 conapy, Jufe], Oil crops [ Soybean, Ground nut, Sunflower, Safflower and corn], processing sugar

 crops [ sugar cane and sugar beet], Beverage crops [Tea, coffee and cocoa], non food crops [ Rubber

 and drugs] and medicine crops [ Carthamus Tinctourivs and negellia Sativa]

**B. Intellectual Analytical and Cognitive Skills:** Student is expected to **know**

B1- Quality and Chemical Composition for Stimulant Crops [Tobacco, Coffee],

 Seasoning and Medicinal Crops [Cumin, Black Cumin, Roselle],

 Textile crops [ cotton, Flax, Kapok, conapy, Jufe], Oil crops [ Soybean, Ground nut, Sunflower,

 Safflower and corn], processing sugar crops [ sugar cane and sugar beet], Beverage crops [Tea, coffee

 and cocoa], non food crops [ Rubber and drugs] and medicine crops [ Carthamus Tinctourivs and

 negellia Sativa] .

**C. Subject- Specific Skills: : Students is expected to learn**

C1- Ecology & Production Practices for Stimulant Crops [Tobacco, Coffee],

 Seasoning and Medicinal Crops [Cumin, Black Cumin, Roselle], Textile crops [ cotton, Flax, Kapok,

 conapy, Jutte], Oil crops [ Soybean, Ground nut, Sunflower, Safflower and corn], processing sugar

 crops [ sugar cane and sugar beet], Beverage crops [Tea, coffee and cocoa], non food crops [ Rubber

 and drugs] and medicine crops [ Carthamus Tinctourivs and negellia Sativa]

**D. Transferable Key Skills:** Students is expected to

D1- Maturity, Harvesting and Processing for Stimulant Crops [Tobacco, Coffee],

 Seasoning and Medicinal Crops [Cumin, Black Cumin, Roselle],

 Textile crops [ cotton, Flax, Kapok, conapy, Jufe], Oil crops [ Soybean, Ground nut, Sunflower,

 Safflower and corn], processing sugar crops [ sugar cane and sugar beet], Beverage crops [Tea, coffee

 and cocoa], non food crops [ Rubber and Tobacco drugs] and medicine crops [ Carthamus Tinctourivs

 and negellia Sativa].

# ILOs: Learning and Evaluation Methods

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| **ILO/s** | **Learning Methods** | **Evaluation Methods** |
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**Course Contents**

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| **No of lectures /Week** | **Subjects (lectures)** | **Sources** | **ILO/s** |
| 1- (1st week) | **Introduction to the course content**Importance and uses of industrial crops | Langer, R. H. M. and Hill, G.D. (1982). Agricultural Plants, Cambridge University Press, U.K. | A1-A2 |
| *3- (2nd-3rd week)* | International centers and locations of Origins , Production **&** classifications according to their botanical , agronomical and uses of industrial crops. | Simmonds, N.W. (1986). Evolution of Crops Plants. Longman     Scientific and Technical, U. K. | ***A1-A2-B1*** |
| 3-(4th-5th week) | Textile crops [ cotton, Flax, Kapok,conapy, Jutte] | Fron internet [Planta], [Crop uses] | B1-B2 |
| 4- (6thweek) | Oil crops [ Soybean, Ground nut, Sunflower,Safflower and corn] | Book : Field crops production, **المحاصيل الحقلية: منشورات جامعة القدس المفتوحة, د. منير الترك , د. سعدي التميمي, د. نصري حداد**  | B2-C1-C3 |
| *5- (*7th *week)* | processing sugar crops [ sugar cane and sugar beet] | Internet sites and Book : field crops production | C1-C2-C3 |
| 6- (8th week)  | Beverage crops [Tea, coffee and cocoa] | Internet sites | D1-D2 |
| 7- (9th week) | non food crops [ Rubber and Tobacco drugs] | Internet sites | **D1-D2** |
| 8- (10th week) | medicinal crops [Safflower: Carthamus Tinctourivs ]and [negellia Sativa].  | Internet sites | D2 |
| 9- **(17th  week)** | **Main field crops cultivated in Jordan** and in the surrounding areas |  |  |
|  |  |  |  |
|  | ***Homework:- Assign your team and project, -Write proposal about your project.*** |  |  |

**Learning Methodology**

## Projects and Assignments

# Evaluation

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| --- | --- | --- |
| **Evaluation** | **Point %** | **Date** |
| **Midterm Exam**  |  |  |
| **Project** |  |  |
| **Assignments** |  |  |
| **Homework**  |  |  |
| **Final Exam**  |  |  |

**Main Reference/s:**

# References:

**Intended Grading Scale (Optional)**

0-39 **F**

40-49 **D**-

50-54 **D**

55-59 **D+**

60-64 **C**-

65-69 **C**

70-73 **C+**

74-76 **B**-

77-80 **B**

81-84 **B+**

85-89 **A**-

90-100 **A**

**Notes:**

* Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.
* For more details on University regulations please visit:

 <http://www.ju.edu.jo/rules/index.htm>