



**The Hebrew University of Jerusalem**

The Robert H. Smith Faculty of Agriculture, Food & Environment  
The International School of Agricultural Sciences

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# **Program Requirements and Course Descriptions**

**Summer Program  
July 10-August 11, 2017**





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### Admission Requirements

- B.Sc. degree holders or third-year students in agriculture, soil and water sciences, plant sciences, biology or related fields from a recognized academic institution.
- GPA of 75 or higher (B on the American scale).
- A high level of proficiency in all English skills, either:
  - At least 89 on the TOEFL internet-based test.
  - At least 6.7 on the IELTS.
  - Or documentation of previous academic studies conducted in English.
- A copy of curriculum vitae (CV)
- Agricultural experience (recommended but not compulsory).

**\*Second-year students may be considered depending on their academic record and experience.**

### Course Description

#	COURSE	INSTRUCTOR	CREDITS
71930	Effluents – Reclamation, irrigation and environmental implication	TBA	3
71113	Effects of biotic and abiotic stresses on agricultural crops	TBA	2

#### **Effluents – Reclamation, irrigation and environmental implication – 3 credits**

Agricultural and environmental aspects of reclaiming waste water, characteristics and use for crop irrigation: waste water sources and treatment; water quality parameters; methods of treatment; health, logistic and regulatory aspects; effect of treated waste water quality on soils and crops; technological aspects of the use of treated waste water; future directions in waste water characteristics and implications of its use and impact on agriculture and the environment.

**Course Code:** 71930

**Cycle:** 1<sup>st</sup> cycle

**Responsible Department:** Environmental Sciences

**Academic Year:** 2016-17

**Semester:** Summer program

**Contact Hours:** 42

**HU Credits:** 3

**Location of Instruction:** The International School of Agricultural Sciences



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**Lecturer Coordinator and email:** TBA

**Teaching Staff:** TBA

**Office Hours:** -

**Module Description:** Students will learn about Agricultural and environmental aspects of irrigation with treated waste water: waste water sources and treatment; water quality parameters; methods of treatment; health, organizational and regulatory aspects; the effect of treated waste water quality on soils and crops; technological aspects of the use of treated waste water; trends in waste water characteristics and the implications of its use and impact on agriculture and the environment.

**Attendance:** Obligatory (100%)

**Teaching arrangements and method of instruction:** Lectures.

**Required reading/literature:** None

**Module Evaluation: Written Assignment –**  
TBA

**Additional Information:** None

### **Effects of biotic and abiotic stresses on agricultural crops – 2 credits**

Biotic and abiotic (drought, temperature, salinity, radiation) factors that stress plants in general, and vegetable and field crops in particular; approaches for mitigating adverse effects of such stresses; the genetic, physiological and biochemical processes that underlie plant response to stress factors; crop resistance to various stress factors and agronomic approaches for optimal agricultural productivity under stress conditions. Discussion of case studies concerning soil salinity, drought stress, insect damage.

**Course Code:** 71113

**Cycle:** 1<sup>st</sup> cycle

**Responsible Department:** Genetics Departments

**Academic Year:** 2016-17

**Semester:** Summer program

**Contact Hours:** 28

**HU Credits:** 2

**Location of Instruction:** The International School of Agricultural Sciences

**Lecturer Coordinator and email:** TBA

**Teaching Staff:** TBA

**Office Hours:** -

**General Prerequisites:** TBA



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### **Module Description:**

Students will be exposed to the latest discoveries published in the professional literatures. Students will work as a group and discussions will take place as a round table. They will review and evaluate the current journals in the field of plant science. Students will critically analyze papers considered as break-through in a specific area. They will discuss the experiments described, the methods and the conclusions.

**Aims:** Course aims: Gaining tools to quantify and analyze the effect of abiotic (salt, drought, temp) and biotic (pests and diseases) on crop plants. Introduction to the system of agronomic and genetic considerations that can and need be implemented in order to accommodate stress situation in crop production.

**Attendance:** Obligatory (100%).

**Teaching arrangements and method of instruction:** TBA

### **Module Content:**

TBA

**Required reading/literature:** TBA

**Module Evaluation:** TBA

**Additional Information:** None

### **Program Costs:**

#### **Students receiving scholarship**

Estimated Cost in New Israeli Shekels	
4,000 (NIS)	Estimated personal expenses (food, travel on weekends etc. for the entire program)
Cost of airfare	Travel

#### **Student not receiving scholarship**

Estimated Cost in New Israeli Shekels	
10,000	Tuition, study tours and housing
4,000	Estimated personal expenses (food, travel on weekends etc. for the entire program)
Cost of airfare	Travel
200	Health insurance