

DESERT STUDIES

TIME TABLE FOR THE SPRING SEMESTER (B)- ACADEMIC YEAR 2020/2021

A. Mandatory Courses:

Students are required to complete one of the courses from the list below during in their first or second semester of studies:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-0153	Prof. Shai Arnon and Dr. Chris Arnush	Writing a Scientific Paper	2	Mon	09:00-10:45	Sede Boqer	School	1	Average of Home Assignments

Students are required to complete the courses from the list below during in their **first** semester of studies:

900-5-5001 Educational Software on Getting to Know the Law for the Prevention of Sexual Harassment - MANDATORY for all students. The course is in the MOODLE system (**Hebrew** - <https://moodle2.bgu.ac.il/moodle/> ; **English** - <http://moodle2.bgu.ac.il/?lang=en>). Registration: **Hebrew** - <https://bgu4u.bgu.ac.il/pls/scwp!/app.gate?app=csh> ; **English** - <https://bgu4u.bgu.ac.il/pls/scwp!/app.gate?app=csh&lang=en> .

900-5-2002 Training in Chemical & Biological Safety - MANDATORY for Students Who Work in Chemical and Biological Labs (Students should take the course every year). Registration for the course is in the first semester of each academic year. The course is in the MOODLE system **Hebrew** - <https://moodle2.bgu.ac.il/moodle/> and **English** - <http://moodle2.bgu.ac.il/?lang=en>.

470-2-0100 The Care and Use of Animals in Research - MANDATORY for Students Who Work with Animals

AGRICULTURE AND BIOTECHNOLOGY

B. Core Courses:

Students are required to attend four core courses selected from all core courses:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-2005	Prof. Moshe Sagi, Prof. S. Rachnilevitch	Plant Physiology under Stress	2	Wed	13:15-15:00	Sede Boqer	School	32	Final Term Paper
001-2-2035	Prof. Naftali Lazarovitch	Crop Irrigation Regimes	3	Tue	15:15-18:00	Sede Boqer	Biology	32	Final Term Paper

C. Seminars and Thesis Writing -- Mandatory Courses:

Students are required to attend Departmental Seminars (one seminar per semester) and Student Seminars (one seminar per year).

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-2222	Prof. Noemi Tel-	Departmental Seminar A (first year)	0	Wed	11:30-12:30	Sede Boqer	Old Admin. Build.	Seminar Room
001-2-2224	Zur & Dr. Ilya	Departmental Seminar B (first year)						
001-2-2223	Gelfand	Departmental Seminar A (second year)						
001-2-2225	(Coordinators)	Departmental Seminar B (second year)						
001-2-2666	Prof. Shimon	Students Seminar (first year)	0.5	Wed	09:00-10:00	Sede Boqer	Biology	32
001-2-2667	Rachmilevitch	Student Seminar (second year)						

In the third and fourth semesters, students must register for Thesis Writing:

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
001-2-9992	--	Thesis Writing B	6

Students who have completed the above Thesis Writing courses and who continue their studies for a fifth semester must register for the course.

Course No.	Lecturer	Subject	Credits
001-2-1000	--	Thesis Writing - Continuation	0

D. Elective Courses within the Track of the Study:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-2021	Prof. Dina Zilberg	Aquatic Animal Health	3	Thu	08:30-11:00	Sede Boqer	Biology	32	Exam
001-2-2025/6/7	Prof. Dina Zilberg	Practical Fish Disease Diagnosis (A)/(B)/(C) (Prerequisite: Theoretical fish diseases course)	1	Contact the lecturer					Final Term Paper
001-2-2028	001-2-2037	Guided Reading on Economical Utilization of Food Industry Wastes as Aquaculture Feeds, Particularly in Arid lands	2	Guided reading course - limited to two students					Final Term Paper
001-2-2037	Prof. Moshe Sagi	Guided Reading on Stress Sensing in Plants	2	Guided reading course - limited to two students					Final Term Paper

D. Elective Courses within the Track of the Study (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments	
001-2-2043	Prof. Shimon Rachmilevitch	Plant Stress Indications: Methods and Instrumentation	2	A 3-day intensive workshop offered during the SUMMER break, =====, 8:30-17:00, Agriculture Building, Room 32. Course registration takes place during the registration period for the SUMMER semester.						Final Term Paper
001-2-2049	Prof. Noemi Tel-Zur	Physiology, Reproduction and Use of Cactus Species	2	Tue	13:15-15:00	Sede Boqer	Biology	32	Exam	
001-2-2051	Prof. Inna Khozin-Goldberg	Guided Reading on Lipid Metabolism	2	Guided reading course - limited to two students						Final Term Paper
001-2-2054	Prof. Shimon Rachmilevitch	Guided Reading on Topics in the Ecophysiology of Desert Plants	2	Guided reading course - limited to two students						Final Term Paper
001-2-2058	Prof. Yitzchak Gutterman	Survival Strategies of Annual Desert Plants	2	Mon	13:15-15:00	Sede Boqer	Biology	Lecturer's Office	Oral exam	
001-2-2069	Prof. Inna Khozin-Goldberg	Lipid Biochemistry of Microalgae and Plants	3	Thu	11:15-14:00	Sede Boqer	Biology	136	Final Paper and Presentation	
001-2-2071	Dr. Vered Tzin	Molecular Mechanism of Plant-Insect Interactions	3	Mon	08:30-11:30	Sede Boqer	Biology	32	Final Term Paper	
001-2-2173	Prof. Noemi Tel-Zur	Guided Reading on Plant Breeding and Cytogenetics	2	Guided reading course - limited to two students						Final Term Paper
001-2-2290	Prof. Dina Zilberg	Guided Reading on Aquatic Animal Health	2	Guided reading course - limited to two students						Final Term Paper
001-2-2300	Dr. Vered Tzin	Guided Reading on Plant Metabolism: Authentic to Synthetic	2	Guided reading course - limited to two students						Final Term Paper
001-2-2302	Dr. Ilya Gelfand	Guided Reading on Ecosystem Ecology and Biogeochemistry	2	Guided reading course - limited to two students						Final Term Paper

E. General Courses:

Students are required to complete 4 credits either from other tracks of study or from the list of introductory courses below:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-1103	Dr. Hadas Hawlena	Introduction to Dryland Ecology	4	Wed	12:30-15:30	Sede Boqer	School	1	Final Term Paper
001-2-4024	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	Computer Room	Final Term Paper

IRRIGATION AND PLANT ENVIRONMENT

B. Courses within the Track of the Study:

Students are required to take 15 credits from the core courses.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-2005	Prof. Moshe Sagi, Prof. S. Rachnilevitch	Plant Physiology under Stress	2	Wed	13:15-15:00	Sede Boqer	School	32	Final Term Paper
001-2-2035	Prof. Naftali Lazarovitch	Crop Irrigation Regimes	3	Tue	15:15-18:00	Sede Boqer	Biology	32	Final Term Paper
001-2-2204	Dr. Gilboa Arye	Agricultural and Environmental Aspects in Soil Sciences	3	Wed	15:15-18:00	Sede Boqer	Biology	32	Final Term Paper

C. Seminars and Thesis Writing -- Mandatory Courses:

Students are required to attend Departmental Seminars (one seminar per semester) and Student Seminars (one seminar per year).

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-2222	Prof. Noemi Tel-	Departmental Seminar A (first year)	0	Wed	11:30-12:30	Sede Boqer	Old Admin. Build.	Seminar Room
001-2-2224	Zur & Dr. Ilya	Departmental Seminar B (first year)						
001-2-2223	Gelfand	Departmental Seminar A (second year)						
001-2-2225	(Coordinators)	Departmental Seminar B (second year)						
001-2-2666	Prof. Shimon	Students Seminar (first year)	0.5	Wed	09:00-10:00	Sede Boqer	Biology	32
001-2-2667	Rachmilevitch	Student Seminar (second year)						

In the third and fourth semesters, students must register for Thesis Writing:

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
001-2-9992	--	Thesis Writing B	6

C. Seminars and Thesis Writing -- Mandatory Courses (Continuation):

Students who have completed the above Thesis Writing courses and who continue their studies for a fifth semester must register for the course.

Course No.	Lecturer	Subject	Credits
001-2-1000	--	Thesis Writing - Continuation	0

D1. Elective Courses within the Track of the Study:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments	
001-2-2043	Prof. Shimon Rachmilevitch	Plant Stress Indications: Methods and Instrumentation	2	A 3-day intensive workshop offered during the SUMMER break, =====, 8:30-17:00, Agriculture Building, Room 32. Course registration takes place during the registration period for the SUMMER semester.						Final Term Paper
001-2-2301	Prof. Nurit Agam	Guided Reading Course on Calculating the Aridity Index from Meteorological Time Series	2	Guided reading course - limited to two students						Final Term Paper
001-2-4024	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	Computer Room	Final Term Paper	
001-2-5026	Prof. Ali Nejidat	Nitrogen Transformations and Environmental Quality	2	Mon	11:15-13:00	Sede Boqer	Water Inst.	Seminar Room	Interm Exam + presentation and Final Term Paper	
001-2-6002	Dr. Aviva Peeters	Theory and Applications of Geographic Information Systems (GIS)	3	Thu	09:15-12:00	Sede Boqer	Man in Drylands	Computer Room	Final Term Paper	

D2. Elective courses for students who are in their second year of studies with the approval of their supervisor

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments	
001-2-2054	Prof. Shimon Rachmilevitch	Guided Reading on Topics in the Ecophysiology of Desert Plants	2	Guided reading course - limited to two students						Final Term Paper
001-2-2173	Prof. Noemi Tel-Zur	Guided Reading on Plant Breeding and Cytogenetics	2	Guided reading course - limited to two students						Final Term Paper

SOLAR ENERGY AND THE ENVIRONMENTAL PHYSICS (*Substitute Lecturer)

B. Seminars and Thesis Writing -- Mandatory Courses:

Students are required to attend Departmental Seminars (one seminar per semester).

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
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001-2-4444	Dr. Mohammad Basoutti and	Departmental Seminar A (first year)	0.25	Tue	10:00-12:00	Sede Boqer	Physics	Seminar Room
001-2-4454	Dr. Leah Orlovsky(Coordinators)	Departmental Seminar B (first year)						
001-2-4464		Departmental Seminar A (second year)						
001-2-4474		Departmental Seminar B (second year)						

In the third and fourth semesters, students must register for Thesis Writing.

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
001-2-9992	--	Thesis Writing B	6

Students who have completed the above Thesis Writing courses and who continue their studies for a fifth semester must register for the course.

Course No.	Lecturer	Subject	Credits
001-2-1000	--	Thesis Writing - Continuation	0

C. Elective Courses within the Track of the Study:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-4011	Dr. Roiy Sayag	Non-Newtonian Fluid Mechanics	3	Tue	12:15-15:00	Sede Boqer	Physics	Meeting Room - 2nd Floor	Final Project
001-2-4022	Prof. Ehud Meron	Pattern Formation and Spatial Ecology	3	Wed	15:00-18:00	Sede Boqer	Physics	Seminar Room	Final Term Paper
001-2-4024	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	Computer Room	Final Term Paper
001-2-4027	Prof. Yossi Ashkenazy	Introduction to Geophysical Fluid Dynamic	3	Mon	13:15-16:00	Sede Boqer	Physics	Seminar Room	Final Term Paper
001-2-4031	Prof. Isaak Rubinstein	Topics in Physico-Chemical Hydrodynamics and Electrodiffusion (A)	2	Flexible - according to the schedules of the students					Final Term Paper
001-2-4046	Prof. Eugene Katz	Advanced Concepts in Photovoltaic Devices	3	Sun	09:15-12:00	Sede Boqer	Solar	Seminar Room	Final Term Paper
001-2-4047	Prof. Iris Visoli-Fisher	Surface Science for the Environment	3	Mon	10:15-13:00	Sede Boqer	Solar	Seminar Room	Final project + Formal presentation of the project
001-2-4048	Dr. Avi Niv	Physical Optics	3	Thu	09:15-12:00	Sede Boqer	Solar	Seminar Room	Final Term Paper
001-2-4049	Dr. Arik Yochelis	Nonlinear Dynamical Aspects of Electrochemical Systems	3	Thu	12:15-15:00	Sede Boqer	Solar	Seminar Room	Mid Term Project + Final Project

C. Elective Courses within the Track of the Study (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-4053	Dr. Avi Niv / Prof. Eugene Katz*	Thermodynamics of Radiating Systems and the Optics of Solar Cells	3	Wed	12:15-15:00	Sede Boqer	Solar	Seminar Room	Final Term Paper

D. Courses Outside the Track of Study and Introductory Courses:

Students are required to complete 4 credits either from other tracks of study or from the list of introductory courses below.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-0009	Prof. Avraham Be'er	Physics of Bacterial Communities	3	Mon	13:15-16:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper
001-2-1103	Dr. Hadas Hawlena	Introduction to Dryland Ecology	4	Wed	12:30-15:30	Sede Boqer	School	1	Final Term Paper

ENVIRONMENTAL AND AQUATIC MICROBIOLOGY

B. Core Track Course - Mandatory - No Mandatory Core Track Courses on 2021-2**C. Seminars and Thesis Writing -- Mandatory Courses:**

Students are required to attend Departmental Seminars (one seminar per semester) and Student Seminars (one seminar per year).

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-5555	Dr. Chris Arnusch and Dr. Scott K. Hansen (Coordinator)	Departmental Seminar A (first year)	0	Wed	13:00-14:00	Sede Boqer	Old Admin. Build.	Seminar Room
001-2-5557		Departmental Seminar B (first year)						
001-2-5556		Departmental Seminar A (second year)						
001-2-5558		Departmental Seminar B (second year)						

C. Seminars and Thesis Writing -- Mandatory Courses (Continuation):

Students are required to attend Departmental Seminars (one seminar per semester) and Student Seminars (one seminar per year).

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-9995	Prof. Ali Nejijat (Coordinator)	Student Seminar (first year)	0.5	Wed	09:00-10:00	Sede Boqer	Water Inst.	Seminar Room
001-2-9996		Student Seminar (second year)						

In the third and fourth semesters, students must register for Thesis Writing.

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
001-2-9992	--	Thesis Writing B	6

Students who have completed the above Thesis Writing courses and who continue their studies for a fifth semester must register for the course:

Course No.	Lecturer	Subject	Credits
001-2-1000	--	Thesis Writing - Continuation	0

D1. Elective Courses 1:

This is a partial list. The student is allowed to select other courses that are related to the area of his/her research with the approval of the supervisor.

Students are required to complete at least 8 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-0004	Prof. Noam Weisbrod	Vadose Zone Hydrology (The course will be taught if at least six students are enrolled)	2.5	Mon	08:30-11:00	Sede Boqer	Water Inst.	Seminar Room	Exam
001-2-0009	Prof. Avraham Be'er	Physics of Bacterial Communities	3	Mon	13:15-16:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper
001-2-2021	Prof. Dina Zilberg	Aquatic Animal Health	3	Thu	08:30-11:00	Sede Boqer	Biology	32	Exam
001-2-2025/6/7	Prof. Dina Zilberg	Practical Fish Disease Diagnosis (A)/(B)/(C) (Prerequisite: Theoretical fish diseases course)	1	Contact the lecturer					Final Term Paper
001-2-3086	Dr. Hadas Hawlena	Microbial Ecology from the Ecologist Point of View	3	Tue	09:15-12:00	Sede Boqer	Biology	32	Final Term Paper
001-2-4022	Prof. Ehud Meron	Pattern Formation and Spatial Ecology	3	Wed	15:00-18:00	Sede Boqer	Physics	Seminar Room	Final Term Paper
001-2-5012	Prof. Zeev Ronen	Biodegradation Process of Synthetic Organic Compound in Water Soil	2	Thu	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper
001-2-5026	Prof. Ali Nejidat	Nitrogen Transformations and Environmental Quality	2	Mon	11:15-13:00	Sede Boqer	Water Inst.	Seminar Room	Interm Exam + presentation and Final Term Paper

D1. Elective Courses 1 (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-5038	Prof. Amit Gross	Water Sanitation	3	Thu	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room	Exam
001-2-5044	Prof. Shai Arnon	Biogeochemical Processes in Surface Water Systems	3	Tue	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room	Exam
001-2-5040	Dr. Eli Zaady	Soil Microbial Ecology (upon the request of at least 5 students)	2	Thu	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper
001-2-5060	Prof. Moshe Herzberg	Biological Processes in Wastewater Treatment	2	Thu	15:15-17:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper
001-2-5065	Prof. Shai Arnon	Flow and Water Quality in Streams: Theory and Practice	2	Tue	08:30-10:00	Sede Boqer	Water Inst.	Computer Room	Field Work Report
001-2-5067	Dr. Scott K. Hansen	Introduction to Contaminant Hydrology	3	Sun	13:15-16:00	Sede Boqer	Water Inst.	Seminar Room	A final exam and problem sets
001-2-5070	Dr. Scott K. Hansen	Practical Data Science and Machine Learning	3	Wed	10:15-13:00	Sede Boqer	Water Inst.	Seminar Room	Take-Home Problem Sets

D2. Elective Courses 2:

This is a partial list. The student is allowed to select other courses that are related to the area of his/her research with the approval of the supervisor.

Students are required to complete at least 3 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments	
001-2-0012	Prof. Daniel Ronen	Selected Issues Related to Groundwater Hydrology: Quality & Quantity	1	A two-day intensive workshop offered during the SUMMER break, September, 2021, 9:00-16:00. Course registration takes place during the registration period for the SUMMER semester.						Final Term Paper
001-2-1103	Dr. Hadas Hawlena	Introduction to Dryland Ecology	4	Wed	12:30-15:30	Sede Boqer	School	1	Final Term Paper	
001-2-3355	Dr. Hadas Hawlena	Guided Reading in Microbial Ecology	2	Guided reading course- limited to two students						Final Term Paper
001-2-5012	Prof. Zeev Ronen	Biodegradation Process of Synthetic Organic Compound in Water Soil	2	Thu	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room	Final Term Paper	
001-2-5062	Dr. Edo Bar-Zeev	Microbial Sociology: From a Single Bacterium to Biofilm and Biofouling	3	Mon	16:15-19:00	Sede Boqer	Water Inst.	Seminar Room	Exam	

D2. Elective Courses 2 (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-5100	Dr. Genady Carmi	Introduction to Surface Hydrology	2	Tue	08:30-10:00	Sede Boqer	48	2	Exam

General Courses:

Students are required to complete up to 4 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Final Assignments
001-2-1103	Dr. Hadas Hawlena	Introduction to Dryland Ecology	4	Wed	12:30-15:30	Sede Boqer	School	1	Final Term Paper
001-2-3045	Dr. Shirli Bar-David	Conservation Genetics	3	Tue	14:15-17:00	Sede Boqer	Biology	136	Final Term Paper
001-2-6002	Dr. Aviva Peeters	Theory and Applications of Geographic Information Systems (GIS)	3	Thu	09:15-12:00	Sede Boqer	Man in Drylands	Computer Room	Final Term Paper