

Hydrology and Water Quality

Semester: 2026-A

Desalination and Water Treatment-New A

Mandatory Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-0153	Dr. Chris Arnush, Dr. Scott Hansen	Writing a Scientific Paper	2	Wed	14:00-16:00	Sde Boker	Water Inst.	15	Students are required to complete the course in their second semester of studies (or 3rd semester)
470-2-0100	prof. Roi Gazit and Dr. Shira Ovdia	The Care and Use of Animals in Research	0			Online program			
900-5-2002	Online Program	Training in Chemical & Biological Safety	0			Online program			
900-5-5001	Online Program	Educational Software on Getting to Know the Law for the Prevention of Sexual Harassment	0			Online program			

B Core Courses: Students are required to complete 13 credits*.

* Students who previously completed courses that were similar/equivalent to certain courses listed above are required to complete the remainder of the required core course credits by enrolling in courses either from the list of Mandatory Core Courses (C) or from the list of Elective Courses (D) or from a combination of both (with the approval of the student's supervisor and the chairperson of the teaching committee).

Mandatory Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-0016	Prof. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	13:00-15:00	Sde Boker	Water Inst.	Seminar Room	Frontal Exam
001-2-5033	Prof. Avraham Beer	Introduction to Desalination Processes	3	Tue	10:00-13:00	Sde Boker	Water Inst.	10	

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C Seminars and Thesis Writing -- Mandatory Courses: Students are required to attend Departmental Seminar 4 tiimes (one seminar per semester).

Students are required to present two seminars (one student seminar per year).

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

Mandatory Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-5555	Dr. Avner Ronen and Dr. Elad Levintal (Coordinator)	Departmental Seminar	0	Wed	13:00-14:00	Sde Boker	Old Admin. Build.	Seminar Room	Mandatory each semester. 4 times during the degree
001-2-9991		Thesis Writing - A	6						Mandatory for students on their 3rd semester
001-2-9992		Thesis Writing -B	6						Mandatory for students on their 4rd semester

Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-1000		Thesis Writing - Continuation	0						Mandatory for students on study extenstion

D Students are required to complete at least 5 credits in this category

Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-5005	Prof. Amit Gross, Prof. Zeev Ronen	Laboratory Methods for Environmental Studies	3	22-26/02/2026 + 01-03/03/2026	08:30-18:00	Sde Boker	Water Inst.	Seminar Room	Eight-day intensive course offered during the Fall Break
001-2-5028	Prof. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	15:00-17:00	Sde Boker	Water Inst.	Seminar Room	
001-2-5033	Prof. Avraham Beer	Introduction to Desalination Processes	3	Tue	10:00-13:00	Sde Boker	Water Inst.	10	

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Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-5069	MOOC	Water & the Environment: Current challenges and solutions	3						Online course. Frontal exam in Sde-Boker campus

E Students are required to complete at least 5 credits in this category

Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-0017	Prof. Roni Kasher	Polymer Science and Polymeric Membranes	3	Mon	09:00-12:00	Sde Boker	Water Inst.	Seminar Room	Frontal Exam
001-2-0022	Dr. Anat Bernstein	Stable Isotope Application in Contaminant Hydrology	2	Wed	08:30-10:00	Sde Boker	Water Inst.	10	Frontal Exam
001-2-0027	Prof. Shai Arnon	Flow and water quality in streams: Theory and practice	2	Sun	10:00-12:00	Sde Boker	Water Inst.	10	
001-2-2015	Prof. Dina Zilberg, Prof. Amit Gross	Introduction to Aquaculture	3	Tue	12:00-15:00	Sde Boker	Biology	136	
001-2-5004	Dr. Elad Levintal and Dr. Tuvia Turkeltaub	Field Methods in Hydrology	3	15-19/02/2026		Sde Boker	Water Inst.	Seminar Room	Five-day intensive course offered during the Fall Break
001-2-5006	Dr. Tuvia Turkeltaub	Migration Processes in the Unsaturated Zone of Soil	3	Thu	09:00-12:00	Sde Boker	Water Inst.	Seminar Room	Home Exam
001-2-5029	Prof. Noam Weisbrod	Rural Water Development	2	Mon	16:00-18:00	Sde Boker	Water Inst.	Seminar Room	(minimum 12 students)
001-2-5066	Dr. Scott K. Hansen	Introduction to Scientific Computing with Python	3	Tue	10:00-13:00	Sde Boker	Water Inst.	Seminar Room	The course will be held if a minimum of 3 students are registered
001-2-5075	Dr. Elad Levintal	Do-it-yourself sensors for environmental research – advanced course 1	1.5	Sun	13:00-15:00	Sde Boker	Water Inst.	Seminar Room	This is a yearly course. Completion of the course is contingent upon registration in both the fall (001.2.5075) and spring semesters under course number 001.2.5076.

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Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-5077	Prof. Gideon Oron	Advanced Management and Optimization of Water Systems and Wastewater Reclamation	2	Wed	08:30-10:30	Sde Boker	Water Inst.	10	Pre-requisite course 001.2.5071

F Students are required to complete at least 4 credits

Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-1200	Prof. Simon Barak & Dr. Buzi Raviv	BGU Radio Academy – Podcast production course	2	22-26/02/2026		Sde Boker	School	1	Five-day intensive course offered during the Fall Break. The course will be held contingent upon registration of minimum 4 students
001-2-2017	Prof. Simon Barak	Plant Perception, Transduction and Response to Environmental Signals (limited to 10 students)	2	Thu	10:00-12:00	Sde Boker	Biology	136	
001-2-2036	Prof. Gideon Grafi	Molecular Biology and Epigenetics	2	Sun	08:30-10:00	Sde Boker	Biology	32	Home Exam
001-2-2038	Prof. Naftali Lazarovitch	Soil Physics	3	Tue	15:00-18:00	Sde Boker	Biology	32	Home Exam
001-2-2040	Prof. Gideon Grafi	Lab Course in Epigenetics	4	22-26/02/2026		Sde Boker	Biology	136	Five-day intensive course offered during the Fall Break + preparation during the fall semester
001-2-3021	Prof. Itamar Giladi	Biostatistics: Class (can be completed during the program)	3	Tue	08:30-10:00	Sde Boker	Biology	32	Final exam in a computer lab.*0 credit points for students in the Ecology and Nature Conservation department. Limited to 17 students

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Elective Courses

Course No	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Rem
001-2-3021 EX	Prof. Itamar Giladi	Biostatistics: Exercise (can be completed during the program)		Wed	09:00-11:00	Sde Boker	School	Computer room	Final exam in a computer lab.*0 credit points for students in the Ecology and Nature Conservation department. Limited to 17 students
001-2-4016	Dr. Leah Orlovsky	Geography of Desertification	2	Sun	12:00-14:00	Sde Boker	Solar	1	
001-2-4029	Prof. Yosef Ashkenazy	Introduction to statistics and probability using Python	3	Wed	09:00 -12:00	Sde Boker	Physics	Seminar Room	Frontal Exam
001-2-5030	Prof. Nurit Agam	Hydrometeorology	3	Wed	15:00-17:45	Sde Boker	Biology	136	
205-2-5021	Prof. Moshe Kiflawi	Methods in Ecology	3	09-12/02/2026 + 22-25/02/2026		Sde Boker	School	Computure Lab	Eight-day intensive course offered during the Fall Break in Sde Boker Campus.

New - for students who began from November 2024