

HYDROLOGY AND WATER QUALITY

TIME TABLE FOR THE FALL SEMESTER (A)- ACADEMIC YEAR 2021/2022

TIME TABLE FOR THE FALL SEMESTER (A)- ACADEMIC YEAR 2021/2022

A. Mandatory Courses:

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

Offered in the fall semester

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0153	Prof. Shai Arnon, Dr. Scott Hansen	Writing a Scientific Paper	2	Tue	10:15-12:00	Sede Boqer	School	1	To be taken in the student's second semester

OR

Offered in the spring semester

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0153	Prof. Shai Arnon, Dr. Scott Hansen	Writing a Scientific Paper	2	Mon	09:00-10:45	Sede Boqer	School	1	To be taken in the student's second semester
001-2-0153	Prof. Shai Arnon, Dr. Scott Hansen	Writing a Scientific Paper - Goup 2	2	Tue	13:15-15:00	Sede Boqer	School	1	To be taken in the student's second semester

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 once per degree. 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 once per degree

MICROBIOLOGY AND WATER QUALITY

B. Core Courses:

Students are required to complete all courses from the list below*.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5024	Prof. Ofer Dahan	Groundwater Hydrology	2.5	Sun	16:00-19:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5059	Prof. Osnat Gillor	Water Microbiology	3	Thu	09:15-12:00	Sede Boqer	Water Inst.	Seminar Room	0

* 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).

C. Departmental 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	Remarks
001-2-5555	Dr. Avner Ronen and Dr. Scott K. Hansen (Coordinator)	Departmental Seminar A (first year)	0	Wed	13:00-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5557		Departmental Seminar B (first year)							
001-2-5556		Departmental Seminar A (Second year)							
001-2-5558		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 this course.

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

D. Mandatory Core Courses Within the Track of Study:

Students are required to complete at least 7 credits**.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks	
001-2-5005	Prof. Amit Gross, Prof. Zeev Ronen	Laboratory Methods for Environmental Studies	3	An eight-day intensive course offered during the FALL break, February 13-23,2022, Water Building, Seminar Room. Course registration takes place during the registration period of the fall semester						0
001-2-5011	Prof. Zeev Ronen	Introduction for microorganisms in the environment	3	Thu	15:15-18:00	Sede Boqer	Water Inst.	Seminar R	0	

** Mandatory Core Courses can be also selected as Elective Courses (on top of the required 7 credits).

E. Elective Courses:

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	Remarks
001-2-0017	Prof. Roni Kasher	Polymer Science and Polymeric Membranes	3	Mon	11:15-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-0022	Dr. Anat Bernstein	Stable Isotope Application in Contaminant Hydrology	2	Tue	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-2015	Prof. Dina Zilberg, Prof. Amit Gross	Introduction to Aquaculture	3	Tue	12:15-15:00	Sede Boqer	Biology	136	0
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments - Class (can be completed during the program)	3*	Tue	08:30-10:00	Sede Boqer	Biology	32	*0 credit points for students in the Ecology and Nature Conservation department. Limited to 16 students
		Wed		09:15-11:00	Sede Boqer	Man in the Drylands	Computer room		
001-2-4028	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	1	0
001-2-4031	Prof. Isaak Rubinstein	Electro-Diffusion of Ions and Membrane Desalination Processes	2	Flexible - according to the schedules of the students					0

E. Elective Courses (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5028	Prof. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	15:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5029	Prof. Noam Weisbrod	Vadose Zone Hydrology (The course will be taught if at least six students are enrolled)	2	Mon	08:30-11:00	Sede Boqer	Water Inst.	Seminar Room	Minimum 12 Students. Rural Water Development (Field Trip) course no. 001.2.5129 will be held only if the Covid-19 guidelines will allow it.
001-2-5065	Prof. Shai Arnon	Flow and Water Quality in Streams: Theory and Practice	3	Wed	14:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5066	Dr. Scott K. Hansen	Introduction to Scientific Computing with Python	3	Tue	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5068	Dr. Oded Nir	Aqueous Chemistry Modeling with PHREEQC	2	An intensive workshop offered during the semester break. February 6-10, 2022 (limited to 16 students).					0
001-2-5069	Prof. Amit Gross, Prof. Osnat Gilor, Prof. Ron Kasher, Prof. Edo Bar-Zeev	Water & the Environment: Current challenges and solutions	3	Online course - Information was published					0
900-1-2900	Prof. Simon Barak & Dr. Buzi Raviv	BGU Radio Academy	*2	Wed					*students must take two semesters beginning in Semester A and fulfil all course requirements. Info was published
001-2-5159	Prof. Osnat Gillor	Introduction to Microbiology	1	A semi intensive course during the second week of the first semester for non-biologists who take the					0

F. General Courses:

Students are required to complete no more than 2-3 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-4029	Prof. Yossi Ashkenazy	Introduction to Geophysical Fluid Dynamic	3	Mon	13:15-16:00	Sede Boqer	Physics	Seminar Room	0

WATER RESOURCES

B. Core Courses:

Students are required to complete all courses from the list below*.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5024	Prof. Ofer Dahan	Groundwater Hydrology	2.5	Sun	16:00-19:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5059	Prof. Osnat Gillor	Water Microbiology	3	Thu	09:15-12:00	Sede Boqer	Water Inst.	Seminar Room	0

Nonmicrobiologists may take the course:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5159	Prof. Osnat Gillor	Introduction to Microbiology	1						A semi intensive course during the second week of the first semester for non-biologists who take the

* 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).

C. Departmental 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	Remarks
001-2-5555	Dr. Avner Ronen and Dr. Scott K. Hansen (Coordinator)	Departmental Seminar A (first year)	0	Wed	13:00-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5557		Departmental Seminar B (first year)							
001-2-5556		Departmental Seminar A (Second year)							
001-2-5558		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 this course.

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

D. Mandatory Core Courses Within the Track of Study:

Students are required to complete at least 7 credits**.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks	
001-2-5005	Prof. Amit Gross, Prof. Zeev Ronen	Laboratory Methods for Environmental Studies	3						An eight-day intensive course offered during the FALL break, February 13-23,2022, Water Building, Seminar Room. Course registration takes place during the	0

** Mandatory Core Courses can be also selected as Elective Courses (on top of the required 7 credits).

E. Elective Courses:

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	Remarks
001-2-0017	Prof. Roni Kasher	Polymer Science and Polymeric Membranes	3	Mon	11:15-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-0022	Dr. Anat Bernstein	Stable Isotope Application in Contaminant Hydrology	2	Tue	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-2015	Prof. Dina Zilberg, Prof. Amit Gross	Introduction to Aquaculture	3	Tue	12:15-15:00	Sede Boqer	Biology	136	0
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments - Class (can be completed during the program)	3*	Tue	08:30-10:00	Sede Boqer	Biology	32	*0 credit points for students in the Ecology and Nature Conservation department. Limited to 16
		Wed		09:15-11:00	Sede Boqer	Man in the Drylands	Computer room		
001-2-4028	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	1	0
001-2-5028	Prof. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	15:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5029	Prof. Noam Weisbrod	Vadose Zone Hydrology (The course will be taught if at least six students are enrolled)	2	Mon	08:30-11:00	Sede Boqer	Water Inst.	Seminar Room	Minimum 12 Students. Rural Water Development (Field Trip) course no. 001.2.5129 will be held only if the Covid-19 guidelines will allow it.
001-2-5030	Prof. Nurit Agam	Hydrometeorology	3	Wed	15:00-17:45	Sede Boqer	Biology	32	0

E. Elective Courses (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5065	Prof. Shai Arnon	Flow and Water Quality in Streams: Theory and Practice	3	Wed	14:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5066	Dr. Scott K. Hansen	Introduction to Scientific Computing with Python	3	Tue	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5068	Dr. Oded Nir	Aqueous Chemistry Modeling with PHREEQC	2	An intensive workshop offered during the semester break. February 6-10, 2022 (limited to 16 students).					0
001-2-5069	Prof. Amit Gross, Prof. Osnat Gilor, Prof. Ron Kasher, Prof. Edo Bar-Zeev	Water & the Environmnet: Current challenges and solotions	3	Online course - Information was published					0
900-1-2900	Prof. Simon Barak & Dr. Buzi Raviv	BGU Radio Academy	*2	Wed					*students must take two semesters beginning in Semester A and fulfil all course requirements. Info was published

F. General Courses:

Students are required to complete no more than 2-3 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-4029	Prof. Yossi Ashkenazy	Introduction to Geophysical Fluid Dynamic	3	Mon	13:15-16:00	Sede Boqer	Physics	Seminar Room	0

DESALINATION AND WATER TREATMENT

B. Core Courses:

Students are required to complete all courses from the list below*.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5024	Prof. Ofer Dahan	Groundwater Hydrology	2.5	Sun	16:00-19:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5033*	Prof. Avraham Be'er	Introduction to Desalination Processes	3	Thu	12:15 - 15:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5059	Prof. Osnat Gillor	Water Microbiology	3	Thu	09:15-12:00	Sede Boqer	Water Inst.	Seminar Room	0

Nonmicrobiologists may take the course:

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5159	Prof. Osnat Gillor	Introduction to Microbiology	1		A semi intensive course during the second week of the first semester for non-biologists who take the				0

* 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).

** A mandatory course in this list.

C. Departmental 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	Remarks
001-2-5555	Dr. Avner Ronen and Dr. Scott K. Hansen (Coordinator)	Departmental Seminar A (first year)	0	Wed	13:00-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5557		Departmental Seminar B (first year)							
001-2-5556		Departmental Seminar A (Second year)							
001-2-5558		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 this course.

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

D. Mandatory Core Courses Within the Track of Study:

Students are required to complete at least 5 credits**.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5028	Prof. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	15:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0

** Mandatory Core Courses can be also selected as Elective Courses (on top of the required 5 credits).

E. Elective Courses:

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

Students are required to complete at least 5 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-0017	Prof. Roni Kasher	Polymer Science and Polymeric Membranes	3	Mon	11:15-14:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-0022	Dr. Anat Bernstein	Stable Isotope Application in Contaminant Hydrology	2	Tue	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-2015	Prof. Dina Zilberg, Prof. Amit Gross	Introduction to Aquaculture	3	Tue	12:15-15:00	Sede Boqer	Biology	136	0
001-2-2017	Prof. Simon Barak	Plant Perception, Transduction and Response to Environmental Signals	2	Thu	10:15-12:00	Sede Boqer	Biology	32	Limited to 10 students
001-2-2038	Prof. Naftali Lazarovitch	Soil Physics	3	Tue	15:15-18:00	Sede Boqer	Biology	32	0
001-2-2046	Prof. Aaron Fait	Analysis of Biological Networks	2.5	Wed	08:30-11:00	Sede Boqer	Biology	32	0

E. Elective Courses (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments - Class (can be completed during the program)	3*	Tue	08:30-10:00	Sede Boqer	Biology	32	*0 credit points for students in the Ecology and Nature Conservation department. Limited to 16 students
		Wed		09:15-11:00	Sede Boqer	Man in the Drylands	Computer room		
001-2-4012	Prof. Isaak Rubinstein	Electro-Diffusion of Ions and Membrane Desalination Processes	3	Flexible - according to the schedules of the students					0
001-2-4028	Prof. Arnon Karnieli	Satellite Image Processing	3	Tue	12:15-15:00	Sede Boqer	Physics	1	0
001-2-5028	Prof. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	15:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5029	Prof. Noam Weisbrod	Vadose Zone Hydrology (The course will be taught if at least six students are enrolled)	2	Mon	08:30-11:00	Sede Boqer	Water Inst.	Seminar Room	Minimum 12 Students. Rural Water Development (Field Trip) course no. 001.2.5129 will be held only if the Covid-19 guidelines will allow it.
001-2-5030	Prof. Nurit Agam	Hydrometeorology	3	Wed	15:00-17:45	Sede Boqer	Biology	32	0
001-2-5065	Prof. Shai Arnon	Flow and Water Quality in Streams: Theory and Practice	3	Wed	14:15-17:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5066	Dr. Scott K. Hansen	Introduction to Scientific Computing with Python	3	Tue	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room	0
001-2-5068	Dr. Oded Nir	Aqueous Chemistry Modeling with PHREEQC	2	An intensive workshop offered during the semester break. February 6-10, 2022 (limited to 16 students).					0

E. Elective Courses (Continuation):

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-5069	Prof. Amit Gross, Prof. Osnat Gilor, Prof. Ron Kasher, Prof. Edo Bar-Zeev	Water & the Environmnet: Current challenges and solotions	3						Online course - Information was published 0
205-2-5021	Prof. Moshe Kiflawi	Methods in Ecology	3						An eight-day intensive course offered during the FALL break in Beer-Sheva, 4 days each week Details will be published
900-1-2900	Prof. Simon Barak & Dr. Buzi Raviv	BGU Radio Academy	*2	Wed					*students must take two semesters beginning in Semester A and fulfil all course requirements. Info was published

F. General Courses:

Students are required to complete up to 4 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room	Remarks
001-2-4016	Dr. Leah Orlovsky	Geography of Desertification	2	Sun	12:15-14:00	Sede Boqer	Physics	Seminar Room	0
001-2-4029	Prof. Yossi Ashkenazy	Introduction to Geophysical Fluid Dynamic	3	Mon	13:15-16:00	Sede Boqer	Physics	Seminar Room	0