

# HYDROLOGY AND WATER QUALITY

## TIME TABLE FOR THE FALL SEMESTER (A)- ACADEMIC YEAR 2014/2015

### MICROBIOLOGY AND WATER QUALITY

#### A. Core Courses:

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

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5024	Dr. Ofer Dahan	Groundwater Hydrology	2	Wed	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5059	Dr. Osnat Gillor	Water Microbiology	3	Wed	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room

\* 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).

#### 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
001-2-5555	Dr. Chris Arnusch (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)						

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

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
002-2-9992	--	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. 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
001-2-5005	Prof. Amit Gross, Prof. Zeev Ronen	Laboratory Methods for Environmental Studies	3	A 10-day				
001-2-5011	Prof. Zeev Ronen	Environmental Microbiology	2	Sun	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5028	Dr. Moshe Herzberg	Microbial Biofilms in Water and Wastewater	2	Tue	14:30-16:30	Sede Boqer	Water Inst.	Seminar Room

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

#### **D. Elective Courses:**

Students are required to complete at least 10 credits.

<b>Course No.</b>	<b>Lecturer</b>	<b>Subject</b>	<b>Credits</b>	<b>Day</b>	<b>Time</b>	<b>Campus</b>	<b>Building</b>	<b>Room</b>
001-2-0017	Dr. Roni Kasher	Polymer Science and Polymeric Membranes	2	Mon	12:15-14:00	Sede Boqer	Water Inst.	Seminar Room
001-2-0020	Prof. Shaul Sorek	Finite Elements Methods for Numerical Approximation	3	Sun	09:15-12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments	3	Tue	08:30-10:00	Sede Boqer	Biology	136
		Exercise		Wed	14:15-16:00	Sede Boqer	Man in the Drylands	Computer Room
001-2-4031	Prof. Isaak Rubinstein	Topics in Physico-Chemical Hydrodynamics and Electrodiffusion – A	2	Flexible- according to the schedules of the students				
001-2-4033	Prof. Isaak Rubinstein	Topics in Physico-Chemical Hydrodynamics and Electrodiffusion – B	2	Flexible- according to the schedules of the students				
001-2-5058	Dr. Drora Kaplan	Plant-Microbe Interactions	2	Tue	09:15-11:00	Sede Boqer	Water Inst.	Seminar Room
001-2-6002	Dr. Aviva Peeters	Theory and Applications of Geographic Information Systems (GIS) (limited to 15 students)	3	Thu	09:15-12:00	Sede Boqer	Man in the Drylands	Computer Room

#### **E. Courses for Nonbiologists (without credit):**

001-2-5020	Dr. Osnat Gillor	Guided Reading - Introduction to Microbiology	0	Guided reading - limited to two students				
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#### **F. General Courses:**

Students are required to complete no more than 2 credits.

001-2-0153	Ms. Ayla Adler	Academic Writing for Graduate Students	2	Wed	14:15-18:00	Sede Boqer	School	1
001-2-1009	Ms. Bery Shalit	Hebrew	0	Mon	12:15-15:30	Sede Boqer	School	1
			0	Thu	12:15-15:30	Sede Boqer	School	1
001-2-4029	Prof. Yosef Ashkenazy	Introduction to Statistics and Probability	2	Wed	14:15-16:00	Sede Boqer	Physics	Seminar Room
001-2-6012	Dr. Moshe Schwartz	Guided Reading on Water Politics in Arid Regions	2	Guided reading - limited to two students				

## **WATER RESOURCES**

#### **A. Core Courses:**

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

<b>Course No.</b>	<b>Lecturer</b>	<b>Subject</b>	<b>Credits</b>	<b>Day</b>	<b>Time</b>	<b>Campus</b>	<b>Building</b>	<b>Room</b>
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5024	Dr. Ofer Dahan	Groundwater Hydrology	2	Wed	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5059	Dr. Osnat Gillor	Water Microbiology	3	Wed	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room

\* 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).

**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
001-2-5555	Dr. Chris Arnusch (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)						

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

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
002-2-9992	--	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. Mandatory Core Courses Within the Track of Study:**

Spring Semester Only.

**D. Elective Courses:**

Students are required to complete at least 10 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-0017	Dr. Roni Kasher	Polymer Science and Polymeric Membranes	2	Mon	12:15-14:00	Sede Boqer	Water Inst.	Seminar Room
001-2-0020	Prof. Shaul Sorek	Finite Elements Methods for Numerical Approximation	3	Sun	09:15:12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-3001	Prof. Ariel Novoplansky	Evolutionary Ecology of Phenotypic Plasticity. Prerequisite: Introduction to Ecology or Introduction to Biology or Equivalent Courses	3	Tue	14:15-17:30	Sede Boqer	Biology	136
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments	3	Tue	08:30-10:00	Sede Boqer	Biology	136
		Exercise		Wed	14:15-16:00	Sede Boqer	Man in the Drylands	Computer Room
001-2-4010	Prof. Georgy Burde	Topics in Environmental Fluid Mechanics – A	3	Flexible- according to the schedules of the students				
001-2-5005	Prof. Amit Gross, Prof. Zeev Ronen	Laboratory Methods for Environmental Studies	3	A 10-day intensive course in the FALL break, Registration on the SPRING semester				
001-2-5014	Prof. Shaul Sorek	Introduction to Modeling Transport Phenomena in Heterogeneous Media	3	Thu	12:15-15:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5015	Prof. Alex Yakirevitz	Introduction into Contaminant Hydrology	3	Thu	09:00-12:00	Sede Boqer	Water Inst./48	Seminar Room/Comp. Room
001-2-5028	Dr. Moshe Herzberg	Microbial Biofilms in Water and Wastewater	2	Tue	14:30-16:30	Sede Boqer	Water Inst.	Seminar Room
001-2-5029	Prof. Noam Weisbrod	Rural Water Development	2	Sun	16:15-18:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5030	Dr. Nurit Agam	Hydrometeorology	3	Tue	11:15-14:00	Sede Boqer	Biology	32
001-2-5055	Dr. Ofer Dahan, Dr. Naftali Lazarovitch	Operation and Analysis of Environmental Monitoring Systems	1	A semi				
001-2-5058	Dr. Drora Kaplan	Plant-Microbe Interactions	2	Tue	09:15-11:00	Sede Boqer	Water Inst.	Seminar Room
001-2-6002	Dr. Aviva Peeters	Theory and Applications of Geographic Information Systems (GIS) (limited to 15 students)	3	Thu	09:15-12:00	Sede Boqer	Man in the Drylands	Computer Room

**D. Elective Courses (continuation):**

001-2-7011	Dr. Arik Yochelis	Numerical Analysis Using MATLAB - class	4	Thu	12:15-15:00	Sede Boqer	Physics	Seminar Room
	Yuval Zelnik	Numerical Analysis Using MATLAB - exercise		Sun	14:15-16:00	Sede Boqer	Man in the Drylands	Computer Room

**E. General Courses:**

Students are required to complete no more than 2 credits.

001-2-0153	Ms. Ayla Adler	Academic Writing for Graduate Students	2	Wed	14:15-18:00	Sede Boqer	School	1
001-2-1009	Ms. Bery Shalit	Hebrew	0	Mon	12:15-15:30	Sede Boqer	School	1
				Thu	12:15-15:30	Sede Boqer	School	1
001-2-4029	Prof. Yosef Ashkenazy	Introduction to Statistics and Probability	2	Wed	14:15-16:00	Sede Boqer	Physics	Seminar Room
001-2-6012	Dr. Moshe Schwartz	Guided Reading on Water Politics in Arid Regions	2	Guided reading - limited to two students				

## DESALINATION AND WATER TREATMENT

**A. Core Courses:**

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

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-0016	Dr. Roy Bernstein	Physicochemical Technologies for Water Treatment	2	Mon	14:15-16:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5024	Dr. Ofer Dahan	Groundwater Hydrology	2	Wed	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5059	Dr. Osnat Gillor	Water Microbiology	3	Wed	08:30-10:00	Sede Boqer	Water Inst.	Seminar Room

\* 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).

**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
001-2-5555	Dr. Chris Arnusch (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)						

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

Course No.	Lecturer	Subject	Credits
001-2-9991	--	Thesis Writing A	6
002-2-9992	--	Thesis Writing B	6

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

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

### C. Mandatory Core Courses Within the Track of Study:

Students are required to complete at least 6 credits\*.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-5028	Dr. Moshe Herzberg	Microbial Biofilms in Water and Wastewater Treatment Processes (prerequisite: Introduction to Microbiology)	2	Tue	14:30-16:30	Sede Boqer	Water Inst.	Seminar Room
001-2-5033	Dr. Avraham Be'er	Introduction to Desalination Processes	2	Mon	10:15-12:00	Sede Boqer	Water Inst.	Seminar Room
001-2-7007	Prof. Amos Zemel	Statistical Methods	3	Sun	16:15-19:00	Sede Boqer	Physics	Seminar Room

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

### D. Elective Courses:

Students are required to complete at least 7 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-3021	Dr. Itamar Giladi	Biostatistics: ANOVA and Design of Experiments	3	Tue	08:30-10:00	Sede Boqer	Biology	136
		Exercise		Wed	14:15-16:00			Man in the Drylands
001-2-2017	Dr. Simon Barak	Plant Perception, Transduction and Response to Environmental Signals	2	Thu	10:15-12:00	Sede Boqer	Biology	32
001-2-2038	Dr. Naftali Lazarovitch	Soil Physics	3	Tue	14:30-17:00	Sede Boqer	Biology	33
001-2-4022	Prof. Ehud Meron	Pattern Formation and Spatial Ecology	3	Mon	13:15-16:00	Sede Boqer	Physics	Seminar Room
001-2-4028	Prof. Arnon Karnieli	Remote Sensing for Agriculture, Rangelands, and Forestry (no prerequisites required)	3	Tue	14:30-17:30	Sede Boqer	Physics	Seminar Room
001-2-5029	Prof. Noam Weisbrod	Rural Water Development	2	Sun	16:15-18:00	Sede Boqer	Water Inst.	Seminar Room
001-2-5055	Dr. Ofer Dahan, Dr. Naftali Lazarovitch	Operation and Analysis of Environmental Monitoring Systems	1	A semi intensive course in the FALL break 9:00-13:00 (Registration in the SPRING semester).				
001-2-5058	Dr. Drora Kaplan	Plant-Microbe Interactions	2	Tue	09:15-11:00	Sede Boqer	Water Inst.	Seminar Room
001-2-6002	Dr. Aviva Peeters	Theory and Applications of Geographic Information Systems (GIS) (limited to 15 students)	3	Thu	09:15-12:00	Sede Boqer	Man in the Drylands	Computer Room
001-2-7011	Dr. Arik Yochelis	Numerical Analysis Using MATLAB - class	4	Thu	12:15-15:00	Sede Boqer	Physics	Seminar Room
	Mr. Yuval Zelnik	Numerical Analysis Using MATLAB - exercise		Sun	14:15-16:00			Man in the Drylands
376-2-5024	Prof. Shaul Sorek	Introduction to Modeling Transport Phenomena for Aquifer Remediation	3	Sun	15:00-18:00	Beer Sheva	90	145

### E. General Courses:

Students are required to complete no more than 4 credits.

Course No.	Lecturer	Subject	Credits	Day	Time	Campus	Building	Room
001-2-0153	Ms. Ayla Adler	Academic Scientific Writing for Graduate Students	2	Wed	14:15-18:00	Sede Boqer	School	1
001-2-1009	Ms. Bery Shalit	Hebrew	0	Mon	12:15-15:30	Sede Boqer	School	1
				Thu	12:15-15:30			1
001-2-1116	Prof. Evyatar Erell, Dr. Yaakov Garb	The Human Dimension--Living in the Drylands	4	Tue	09:15-12:00	Sede Boqer	School	1
001-2-2022	Dr. Claude Aflalo	Proteins and Enzymes - Structure and Kinetics	3	Thu	12:15-15:00	Sede Boqer	Biology/Bld.48	32 / Computer Room
001-2-4016	Dr. Leah Orlovsky	Geography of Desertification	2	Sun	12:15-14:00	Sede Boqer	Physics	Seminar Room
001-2-4029	Prof. Yosef Ashkenazy	Introduction to Statistics and Probability	2	Wed	14:15-16:00	Sede Boqer	Physics	Seminar Room