



**Graduate Degree
Programmes
by
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THE COUNCIL OF HIGHER EDUCATION (YÖK) in TURKEY

- The **Council of Higher Education (YÖK)** was established with the Law No. 2547 dated 6 November 1981. With this law, it has commenced in a restructuring process of **academic, institutional and administrative** aspects in **higher education**.
- With this law, all higher education institutions in Turkey were gathered under the roof of YÖK; academies, universities, educational institutions have been transformed into the faculties of education, and conservatories and vocational higher schools (VHS) have been affiliated to universities.
- All programmes (undergraduate and graduate) are prepared in accordance with the Regulations of the Council of Higher Education (CHE)
- **Once approved by YÖK, Programmes are governed by the Boğaziçi University Graduate Education and Training Regulations**



YÖK Requirements to Open a Graduate Programme

- A doctoral programme can be opened if the faculty members are from the **area of the programme**;
- A **doctoral programme** can be opened with a **minimum of 6 faculty members in the university staff**. At least two of them must be faculty staff, and if **one of them is a professor, at least two of them must be associate professors**. One of these faculty members may be of foreign nationality.
- A **master's programme** can be opened with a **minimum of 3 faculty members in the university staff, with at least 2 professors and/or associate professors**.
- For the doctoral program, the **faculty members must have taught at least 4 semesters** in the undergraduate degree programme, or two semesters in the master's programme with thesis, of the department.
- For the master's programme, **the faculty members must have taught in a undergraduate program for at least two semesters**.
- The university, which will open in the graduate education program, must have the necessary infrastructure in terms of the **library and laboratory**.



YÖK Requirements for Advisor Appointment

- The main thesis advisors are appointed among the faculty members of the university staff. However, the second advisors can be from other institutions.
- In order for faculty members to supervise **Ph.D. theses**, they must have supervised at least one master's thesis previously.
- The maximum thesis advisory per faculty member in Master's and doctoral programmes is **12**.
- Faculty members, who already have more than 12 graduate students, cannot receive new students until the number falls below the determined upper limit.



Graduate education consists of:

- **Thesis and Non-thesis master's, doctoral and postgraduate doctoral** programmes.

The curriculum of a graduate programme consists of

- courses,
- laboratories,
- applications,
- workshops, studios,
- internships, seminars, projects, dissertations and similar studies
- and distribution of these studies by semesters, credit values, prerequisites and conditions of courses.

At least one of the courses in the curriculum should include **scientific research techniques** and **research and publication ethics**.



Duration

- **Normal period of the master's programmes with thesis is 4 semesters and the maximum duration is 6 semesters.** The minimum duration of *non-thesis master's programmes* is 2 and the maximum duration is 3 semesters.
- The **normal duration of the Ph.D. programme is 8 semesters** for those who are accepted with a master's degree and **10 semesters** for those who are accepted by a bachelor's degree.
- The **maximum duration of the doctoral programme is 12 semesters** for those who are accepted with a master's degree, and **14 semesters** for those who are **accepted with a bachelor's degree**.
- Time spent in learning English (preparatory school) is not included in this period.

Preparatory Programme

Scientific preparatory programme consists of **scientific preparatory courses** that students have to take in order to correct their deficiencies before starting the graduate programme they are accepted.

- Those who have received their undergraduate degrees in different fields from the master's or doctoral programme where they are accepted,
- Those who have received their master's degrees in different fields from the doctoral programme where they are accepted,
- Graduates of a different higher education institution.

The period spent in the scientific preparatory programme is not included in the normal and maximum periods of the graduate programme specified in this Regulation.

Students who fail the preparatory programme cannot join the graduate programme.



Master's programmes

- The master's programme consists of a **minimum of 21 credits**.

It should contain:

- at least 7 courses with credit ,
- a seminar course with zero credits, at least one time per week.
- A thesis
- At most 2 of the courses can be taken from undergraduate senior level if the student did not take them during his/her undergraduate education.
- A programme advisor, appointed by the instate upon suggestion of the department, determines the courses that students will take in each semester in accordance with the provisions of this Regulation and the graduate programme in which the students are accepted.



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Success in the master's programme

At the end of the four semesters,

- the student who cannot complete the credit courses and seminar course in the programme curriculum with at least 3.00/4.00 Grade Point Average (GPA), and within period defined,
- the student who fails in the thesis study or does not take the thesis defense

is dismissed from the University.



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Assignment of master's thesis advisor

- A full-time faculty member who is in **the staff of the University** is assigned to each student as **thesis advisor**. This is **NOT** the same as the **programme advisor**.
- In special cases a second thesis advisor with a doctoral degree can be assigned as a **co-advisor**.
- The relevant department recommends the thesis subject determined by the student together with the thesis advisor to the institute by the end of the second semester at the latest.
- The student must register for the “thesis” course each semester starting from the semester following the appointment of the thesis advisor at the latest.



Master's Degree Jury

- **The jury consists of 3 or 5 faculty members**, one of which is the **student's thesis advisor** and at least one is **from another higher education institution**.
- If the jury consists of three people, the co-advisor cannot be a member of the jury.
- In the event of **two advisors**, the jury consists of **5 full-time faculty members**, two of which are the advisors of the student, and at least one of the other higher education institutions.
- Before the defense of the master's thesis, the student completes the thesis and presents it to his/her advisor. The advisor delivers the thesis to the institute with its opinion that the thesis is defensible. The Institute receives the **plagiarism** software programme report on the thesis and sends it to the advisor and the jury members.
- The members of the jury convene within one month from the date of the submission of the thesis to them and take the student to the thesis defense. In order for the student to be taken to the thesis defense, all the courses required for graduation must be successfully completed with at least **3.00/4.00 GPA**.

- **Thesis defense consists of the presentation of the thesis study and the question-answer section following this.** After the defense, the jury decides to **accept, reject or correct** it and inform the relevant institute within three days at the latest with a report. If the jury asks for major revision, the student might have to redefend the thesis in front of the same jury.
- The student whose thesis is found to be **unsuccessful and rejected is dismissed** from the University. If the student makes a request and there is a **non-thesis master's programme** of the same name in the same department, he/she may be granted a non-thesis master's degree diploma without thesis, provided that the student fulfills the course credit load, project writing and similar requirements of the non-thesis master's programme of the department.
- The student, **who is successful in the thesis defense and meets the other conditions required for graduation, submits the required number of copies** prepared in accordance with the writing rules determined by the institute of thesis and signed by all jury members to the relevant institute at the latest within one month after the defense of the thesis. The institute's board of directors may extend the delivery period for a maximum of one month upon request.
- Students who do not meet these conditions will not receive their diploma until they meet the conditions, benefit from the student rights and are dismissed if the maximum duration is expired.

Doctoral (Ph.D.) programme

- The principles for the execution of a doctoral programme are determined by the recommendation of the relevant department, the decision of the board of directors of the relevant institute and the **approval of the Senate**.

Ph.D. programme for students with a master's degree consists of:

- a minimum of 21 credits.
- at least 7 courses with credit plus a seminar course
- a proficiency exam at the end of the course work
- thesis proposal
- thesis progress reports
- a thesis
- The board of directors of the relevant institute appoints a full-time faculty member from the same department as a **programme advisor** to the student who will do a doctorate. The programme advisor determines the courses that the student will take in each semester.



Success in the doctoral programme

- The **maximum duration** of completing the credit courses required for the doctoral programme is **4 semesters** for those who are accepted with a master's degree with thesis and **6 semesters** for those who are accepted with a **bachelor's degree**.
- During this period, the student who cannot complete all the credit courses with at least 3.00/4.00 GPA is dismissed from the University.
- The student who has successfully completed the credit courses, who is successful in the proficiency exam and whose thesis proposal is accepted, but who cannot complete the thesis work by the end of twelve semesters, specified in the first paragraph, is dismissed.

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Assignment of a doctoral thesis advisor

- A **thesis advisor**, a **full-time faculty member** who is in the staff of the University and who has successfully managed a thesis previously, is assigned to each student by the institute board of directors, upon the advise of related department.
- **The thesis advisor must be appointed by the end of the second semester at the latest.**
- A second thesis advisor can be assigned upon the request of the first advisor. The co-advisor must have at least a doctoral degree and does not have to be university staff.



Doctoral proficiency exam

- Students who **complete the course obligations** of the doctoral programme successfully and with at least 3.00/4.00 GPA are **eligible to take the proficiency exam**.
- A student takes the proficiency exam no more than once a semester. A student has a maximum of 2 chances to pass the proficiency exam
- The student who is accepted with a master's degree must take the proficiency exam by the end of the seventh semester at the latest, who is accepted with a bachelor's degree. The student who does not take the proficiency exam in the period is considered to have exercised this right.



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- **Proficiency exams are regulated and conducted by the Ph.D. proficiency committee, which consists of 5 faculty members who are fully-time faculty members.**
- Ph.D. proficiency exam is conducted in two sections in written and oral form. The student who is successful in the written exam is taken for the oral exam. The jury of the Ph.D. exams assess the student's success in the **written and oral exams**, and decides by an **absolute majority** that the student is successful or unsuccessful.
- The student who fails in the proficiency exam is re-tested in the following semester from the department/departments he has failed. The student who has failed in this second exam is dismissed from the doctoral programme.
- **The student who is successful in the proficiency exam enrolls in the doctoral thesis.**



Thesis monitoring committee

- For the student who is successful in the proficiency exam, a **thesis monitoring committee** is formed.
- **The committee**, which consists of **3 faculty members**: thesis advisor and one faculty member from the same department, and one from another department
- A co-advisor, if present, attends the committee meetings but cannot vote.



Thesis proposal defense

- The student, who is successful in the doctoral proficiency exam, defends the thesis proposal, which covers the purpose, method and study plan of the research to be conducted within six months at the latest, orally in front of the thesis monitoring committee.
- The thesis monitoring committee decides solely by the majority of the acceptance, correction or rejection of the student's thesis proposal and informs the institute about a report within three days at the latest.
- The student whose thesis proposal has been rejected has the right to choose a new thesis subject and/or thesis advisor.
- The student whose proposal is rejected in this defense to the new thesis jury or who has not defended the thesis proposal within the given period is dismissed from the Ph.D. programme.



Progress of the Doctoral Thesis

- The student submits a written report to the members of the thesis monitoring committee each semester.
- In this report, the summary of the studies carried out so far and the working plan to be made in the next period is indicated. The thesis study of the student is evaluated by the committee and the result is notified to the institute. If the student is found successful, the student continues with his/her studies.
- The student, who **has failed twice in a row or three times with intervals** by the Committee, is **dismissed** from the University.



Ph.D. Thesis Defense

- A student in the doctoral programme writes the results obtained in accordance with the writing rules accepted by the Senate and defends his thesis verbally in front of the jury.
- The jury consists of 5 faculty members, 3 of whom are **members of the student's thesis monitoring committee, and at least two are faculty members of another higher education institution.** The advisor has a right to vote.
- Candidate defends his thesis in front of the jury. At the end of the thesis defense, the jury decides to **accept, reject or correct** the doctoral thesis by the absolute majority, and informs the institute about this decision within three days at the latest.
- The student, who is asked to correct the thesis, redefines his/her thesis in front of the same jury within the period given by the jury.
- The student whose thesis has been found unsuccessful and rejected is dismissed from the University.



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Principles Regarding Graduation and Diplomas

In order to graduate from the programme and receive a diploma, a student must;

- be registered in the university in his/her last semester,
- complete the courses he/she has taken within the framework of the graduate programme with at least 3.00/4.00 GPA,
- Successfully complete of thesis in master and doctoral programmes with thesis,
- fulfill other requirements specified by the relevant department,



MASTER OF SCIENCE PROGRAMME IN CHEMISTRY

- The M.S. programme in Chemistry is comprised of **7 graduate courses**, a **Graduate Seminar** (CHEM 579), an **M.S. seminar** (CHEM 591) and an **M.S. thesis** (CHEM 690) to be completed in accordance with the regulations of the Institute of Graduate Studies in Science and Engineering.
- Students are required to complete two of the Advanced Chemistry (CHEM 51X) courses offered. One elective course, from graduate courses offered by other departments, may be allowed with the permission of the graduate advisor.



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First Semester		Cr.	Ects	SecondSemester			Cr.	Ects
CHEM 51X	Advanced Chemistry *	3	8		CHEM 51X	Advanced Chemistry *	3	8
CHEM 579	Graduate Seminar	0	2		CHEM --	Dep. Elective	3	8
CHEM --	Dept. Elective	3	8		CHEM --	Dept. Elective	3	8
CHEM --	Dept. Elective	3	8		-- --	Elective	3	8
Total		9	26		Total		12	32
Third Semester		Cr.	Ects					
CHEM 591	MS Seminar	0	2		CHEM 690	Master's Thesis	0	60
Total		0	2					

- Total: 21 Credits / 120 ECTS
- *Students are required to complete two of the CHEM 51X Advanced Chemistry classes offered:
- CHEM 511 Advanced Organic Chemistry
 CHEM 512 Advanced Physical Chemistry
 CHEM 513 Advanced Analytical Chemistry
 CHEM 514 Advanced Inorganic Chemistry



DOCTOR OF PHILOSOPHY PROGRAMME IN CHEMISTRY

The Ph.D. Programme in Chemistry consists of **6 graduate courses**, a **Graduate Seminar (CHEM 700)**, a **Current Research Assessment** course (CHEM 601), a **Guided Research** course (CHEM 699), a **qualifying examination**, a **thesis proposal**, and a **Ph.D. thesis (CHEM 790)**, to be completed in accordance with the regulations of the Institute of Graduate Studies in Science and Engineering.

The Ph.D. student must have published at least 1 journal paper (covered in SCI-exp) during his/her studies. This number changes from one department to the other.



First Semester		Cr.	Ects	SecondSemester		Cr.	Ects	
CHEM 700	Graduate Seminar	0	2		CHEM 601	Current Research Topics	1	2
CHEM --	Dept. Elective/Adv. Chem.*	3	8		CHEM 699	Guided Research	4	8
CHEM --	Dept. Elective	3	8		CHEM --	Dept. Elective	3	8
CHEM --	Dept. Elective	3	8		-- --	Elective	3	8
Total		9	26		-- --	Elective	3	8
					Total		14	34

Continued:

		Cr.	Ects
---	Qualifying Exam	0	30
---	Thesis Proposal Defense	0	30
CHEM 790	PhD Thesis	0	120
Total		0	180

Total: 23 Credits / 240 ECTS

*Students who have not previously completed an Advanced Chemistry course are required to take one of the CHEM 51X Advanced Chemistry classes offered:

CHEM 511 Advanced Organic Chemistry

CHEM 512 Advanced Physical Chemistry

CHEM 513 Advanced Analytical Chemistry

CHEM 514 Advanced Inorganic Chemistry

INSTITUTE OF ENVIRONMENTAL SCIENCES GRADUATE STUDY

- The Institute offers graduate studies in M.S. and Ph.D. levels in the fields of Environmental Sciences and Environmental Technology.
- The **M.S. programme** requires at least **24 credit hours of course work, 1 seminar and a written thesis.**
- The **Ph.D. programme** requires at least **24 credit hours of course work, 1 seminar, and a written dissertation.**
- The Ph.D. candidates are required to pass a proficiency examination before they commence their thesis work.



Institute of Environmental Sciences

MS in Environmental Technology

MS in Environmental Science

Urban Waste
Management and
Renewable Energy
(W2E)

Pollution Control and
Modeling (PCM)

Molecular Ecology and
Microbial
Biotechnology (MNM)

Socio-Ecological
Sustainability (SES)

A. Compulsory courses: On Common fundamental knowledge and research skills (6 credits)

Fundamentals of Environmental Science (3 Credits)

Research Methods for Environmental Scientists (3 Credits)

Graduate Seminar (non-credit)

B. Specified elective courses: On Fundamental concepts and methods , specific to each concentration area (12 Credits)

C. Free elective courses: On research-specific concepts and methods with advisor's approval (6 Credits)

Urban Waste Management and Renewable Energy (W2E) Concentration Area			
Fall Semester		Spring Semester	
Compulsory Classes (6 credits to be fulfilled)			
ESC 520 Fundamentals of Environmental Sciences	3	ESC 530 Research Methods for Environmental Scientists	3
		Esc 579 Graduate Seminar	0
Specified Elective Classes (at least 12 credits to be fulfilled)			
ESC 531 Urban Waste Management	3	ESC 554 Bioenergy & Biofuels	3
ESC 518 Anaerobic Digestion Process	3	ESC 519 Environmental Technology Laboratory	3
ESC 509 Resource Conservation for Energy, Fuel, Chemicals	3	ESC 536 Renewable Energy Sources & the Environment	3
		ESC 634 Treatment and Disposal of Wastewater Sludge	3
Free Elective Classes (at most 6 credits to be fulfilled)			

Pollution Control and Modeling (PCM) Concentration Area			
Fall Semester		Spring Semester	
Compulsory Classes (6 credits to be fulfilled)			
ESC 520 Fundamentals of Environmental Sciences	3	ESC 530 Research Methods for Environmental Scientists	3
		Esc 579 Graduate Seminar	0
Specified Elective Classes (at least 12 credits to be fulfilled)			
Esc 503 Transport of Pollutants in the Environment	3	ESC 517 Water and Wastewater Treatment: Biological Processes	3
ESC 516 Water and Wastewater Treatment: Physicochemical Processes	3	ESC 524 Water Reuse	3
ESC 527 Environmental Modeling	3	ESC 551 Environmental Chemistry	3
Free Elective Classes (at most 6 credits to be fulfilled)			
<p>Upon advisor's and supervisor's consent, student can take classes from "specified" categories of all concentration areas and/or classes under "free" category within and outside the IES.</p>			

Molecular Ecology and Microbial Biotechnology (MNM) Concentration Area

Fall Semester		Spring Semester	
Compulsory Classes			
ESC 520 Fundamentals of Environmental Sciences	3	ESC 530 Research Methods for Environmental Scientists	3
		Esc 579 Graduate Seminar	0
Specified Elective Classes			
ESC 559 Molecular Ecology and Evolution	3	ESC 555 Genetic Data Analyses	3
ESC 557 Environmental Microbiology	3	ESC 569 Microbial Biotransformation and Genetics	3
ESC 558 Concepts and Models in Ecology	3	ESC 560 Molecular Ecology and Microbial Biotechnology Laboratory	3
Free Elective Classes (at most 6 credits to be fulfilled)			
Upon advisor's and supervisor's consent, student can take classes from "specified" categories of all concentration areas and/or classes under "free" category within and outside the IES			

Socio-Ecological Sustainability (SES) Concentration Area			
Fall Semester		Spring Semester	
Compulsory Classes (6 credits to be fulfilled)			
ESC 520 Fundamentals of Environmental Sciences	3	ESC 530 Research Methods for Environmental Scientists	3
		Esc 579 Graduate Seminar	0
Specified Elective Classes (at least 12 credits to be fulfilled)			
ESC 539 Environmental Governance	3	ESC 542 Ecological Economics	3
ESC 541 Environmental Economics	3	ESC 549 Climate Policy	3
ESC 577 Dynamic Modeling of Socio-ecological Systems*	3	ESC 578 Systems and Sustainability*	3
Free Elective Classes (at most 6 credits to be fulfilled)			
Upon advisor's and supervisor's consent, student can take classes from "specified" categories of all concentration areas and/or classes under "free" category within and outside the IES			

* Students who aim to do thesis work on systems thinking, computers modeling and simulation are suggested to follow the * options, otherwise they are suggested to prioritize other specified elective classes.

THANK YOU FOR YOUR ATTENTION

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