RAYMOND AND BEVERLY SACKLER FACULTY OF EXACT SCIENCES

The Faculty of Exact Sciences consists of five major academic units: the School of Chemistry; the School of Computer Science; the School of Physics and Astronomy; the School of Mathematical Sciences; and the Department of Geophysical, Atmospheric and Planetary Sciences.

The normal duration of the undergraduate program is three years. In special cases permission may be granted to extend the period to five years.

Eligibility and Admission Requirements

Foreign high school graduates must have successfully completed one year in exact sciences in the preparatory program (Mechina) or one academic year at a university where studies included at least one advanced mathematics course as well as courses in the exact sciences.

Applicants holding the British G.C.E. must have passed A-level exams in mathematics and at least one other subject in the exact sciences.

Graduates of French secondary schools must have certificates indicating successful completion of the mathematics, physics, and chemistry courses.

Applications of candidates who have completed their secondary education outside Israel will be evaluated by the Admissions Committee.

Applicants with Advanced Placement (AP) course units in mathematics, whose registration is based on a U.S. High School Diploma and SAT scores (1270 at least in the verbal and math sections) but do not attend “Mechina,” are required to contact the registration office in order to verify their eligibility to apply to the School of Mathematics or to the School Computer Science.

Applicants holding an Israeli Matriculation (Bagrut), see the Hebrew Information Booklet.

Preparatory courses

Preparatory courses in mathematics, physics, and chemistry are offered during the summer for a period of 6-8 weeks. Those wishing to refresh their knowledge may participate. A tuition fee is charged.
Raymond and Beverly Sackler School of Chemistry

In addition to the classic studies of physical chemistry, inorganic chemistry, organic chemistry, and analytical chemistry, the B.Sc. program requires that the undergraduate acquire a solid foundation in mathematics, physics, quantum chemistry, statistical mechanics, computer programming, electronics, biochemistry, and instrumentation.

The study program leading to the B.Sc. consists of two years of obligatory courses and a third year of mostly elective courses (both oral and lab courses).

0351 Chemistry with emphasis on research (Single Major)

The purpose of this program is to identify and train excellent students who wish, and are able, to be involved in chemical research in the early stage of their undergraduate studies. This program provides the students with comprehensive basic tools in all aspects of chemistry, including a strong background in mathematics and physics, and some knowledge of biochemistry and expose them to research activity in the School of Chemistry.

0351 Chemistry (Single Major)

The purpose of this program is to train professional chemists for research, industry, teaching and provides the students with comprehensive basic tools in all aspects of chemistry, including a strong background in mathematics and physics, and some knowledge of biochemistry.

0358-0468 Double Major Program – Chemistry and Biology

This program is designed to train students as experts at the interface between chemistry and biology, primarily in chemical biology, biochemistry and molecular biology.

0351, 0321 Double Major Program - Chemistry and Physics.

This program is designed for exceptional students who wish to obtain a broad education both in physics and chemistry.

0351, 0378 Double Major Program – Chemistry and Computer Science

This program enables students to obtain education both
in chemistry and in the computer sciences. It may also serve as a basis for a higher degree in computational chemistry or enable students to be employed in computational science in industry.

0351, 0366 Double Major Program – Chemistry and Mathematics

This track is primarily for students who wish to focus on theoretical chemistry in their higher degrees and have a strong desire to learn mathematics at the highest level.

0351, 0341 Double Major Program – Chemistry and Geophysical, Atmospheric and Planetary Sciences

The purpose of this program is to train chemists for research of Planetary and Atmospheric Sciences and in Earth Research and implementation.

Double Major Program with any department from another Faculty

This program permits multidisciplinary high education.

For more details see our site: www.tau.ac.il/exact_sciences/site

Department of Geophysical, Atmospheric and Planetary Sciences

The Geophysical, Atmospheric and Planetary Sciences curriculum provides a thorough grounding in physics and mathematics, which forms the basis for specific professional courses.

Undergraduate Programs:

0341 Geophysical, Atmospheric and Planetary Sciences (single major)

B.Sc. studies focus on the theoretical and applied aspects of the Earth Sciences: applied geophysics and geology, atmospheric sciences and meteorology as well as courses in the planetary and space sciences.

In the first two years, students concentrate mainly on mathematics, physics, and chemistry. The following year is devoted to geophysical, atmospheric, and planetary studies.

The program is open to candidates who have a background in the exact sciences. The program offers the option of combining Geophysical, Atmospheric and Planetary Sciences, with one of the programs in Mathematical Sciences: Mathematics, Computer Science or Statistics. Candidates must meet the admission requirements of both majors.


0341.0351 – Geophysical, Atmospheric and Planetary Sciences – double major, together with Chemistry. Studies focus on Chemistry and its application to Geophysics as well as Atmospheric and Planetary Sciences. Candidates must meet the admissions requirements of both majors.

0341.xxxx – Geophysical, Atmospheric and Planetary Sciences – double major – together with an additional major in any other department from any Faculty (as double major) – B.Sc.

The program offers the option of combining Geophysical, Atmospheric and Planetary Sciences with any additional program in any other Faculty (as dm). Candidates must meet the admission requirements of both majors.

Raymond and Beverly Sackler School of Mathematical Sciences

The undergraduate programs provide students with basic knowledge in various areas of theoretical mathematics, applied mathematics and statistics.

Undergraduate Programs

0366 Mathematics (B.Sc.) – sm
0366 Mathematics (B.Sc.) – and 0368 Computer Science (B.Sc.) – dm
0366 Mathematics (B.Sc.) – and 0365 Statistics and Operations Research (B.Sc.) – dm
0366 Mathematics (B.Sc.) – and 0351 Chemistry - dm
0366.xxxx Mathematics (B.Sc.) – together with an additional major in any other Faculty (dm)
0376 Mathematics – Major and Physics – Minor (B.Sc.) – sm
0323 Combined Mathematics – Physics Program (B.Sc.) – sm
0365 Statistics and Operations Research (B.Sc.) – sm
0365.0398 Statistics Operations Research and Computer Science dm
0365.xxxx Statistics and Operations Research (B.Sc.) – together with an additional Major in any other Faculty – dm
0379 Mathematics and Extended Units – dm

Admission to Mathematical Sciences
The admission requirements and the program of studies during the first year are common to all students in the programs labeled with the code number 0366. Transfer to the various programs is subject to the approval of the Curriculum Committee.

Admission to Statistics and Operations Research
The admission requirements for Statistics and Operations Research with a double major (Code 0365. dm) may differ from those for the other programs of study in the School of Mathematical Sciences.

For more details see our site: www.tau.ac.il/exact_sciences/site

The Blavatnik School of Computer Science
The school’s diverse undergraduate programs offer students the broadest possible knowledge in computer science, probability, statistics, and operations research, while also providing basic knowledge in various areas of theoretical and applied mathematics.

Undergraduate Programs
0368 Computer Science (B.Sc.) sm
0368 Computer Science (B.Sc.) dm – and 0366 Mathematics (B.Sc.) dm
0515 Combined Studies – Computer Science with Electrical and Electronic Engineering (B.Sc.) sm
Computer Science with emphasis on Bioinformatics (B.Sc.) sm

Computer Science (B.Sc.) dm – and Physics (B.Sc.) dm

Chemistry (B.Sc.) dm – and Computer Science (B.Sc.) dm

Geophysical, Atmospheric and Planetary Sciences (B.Sc.) dm – and Computer Science (B.Sc.) dm

Computer Science (B.Sc.) dm together with an additional Major in any other faculty (as dm)

Computer Science (B.Sc.) – dm – and Statistics and Operations Research (B.Sc.) – dm

Since enrollment to the School of Computer Science is limited, only candidates with the highest grades will be admitted.

Transfer to the various programs is subject to the approval of the Curriculum Committee.

Admission to Computer Science

The admission requirements to Computer Science with Mathematics (0368) are very high, and even higher to Computer Science with any other major (0369) due to the large volume of applicants. Admission depends on high grades on the Matriculation Examinations (“Bagrut” or equivalent) and the Psychometric Entrance Examination, and in rare instances, on high grades in extensive advanced studies in Mathematics and Physics.

To qualify for the second year in Computer Science, a student must complete the first year courses in the School of Mathematical Sciences with a weighted minimum average of 70. (The teaching committee may require a higher average from students who changed the program to which they were originally accepted and from students who are exempted from some of their first year courses on the basis of previous academic studies). Since available places are limited, the number of students accepted will be determined each year according to the number of openings.

Students who are not accepted to the Computer Science School may transfer to the School of Mathematical Sciences in one of the other tracks.
Raymond and Beverly Sackler School of Physics and Astronomy

The physics curriculum broadly covers both classical and quantum physics. Third year students are introduced to current research in condensed matter physics, particle physics, astrophysics, and applied physics.

Undergraduate Programs:

0321 Physics (Track 100) B.Sc. – sm
0323 Combined Mathematics -Physics program – B.Sc.
0516 Combined Physics Electrical Engineering – B.Sc.
0321 Physics Major – Mathematics Minor (Track 101) B.Sc.
0321.0369 Physics and Computer Science B.Sc. – dm
0321.0341 Physics and Geophysical, Atmospheric and Planetary Sciences B.Sc. – dm
0321.0351 Physics and Chemistry B.Sc. – dm - To be combined only with track 355 each.
0321.0455 Physics and Life Sciences B.Sc.
0321.xxxx – Physics (B.Sc.) dm – together with an additional major in any other Faculty (as dm)

0321 Physics (Track 100)

The program aims at giving the student the basic knowledge necessary for a physicist as well as a broad overview of the different branches of physics. Nominal completion time for the undergraduate program is three years.

0323 Combined Mathematics –Physics Program

This program is for students who wish to major in both physics and mathematics. An undergraduate degree in this program with adequate grades allows the student to enroll for graduate studies in either of the two subjects.

Transfer to a double major program with computer Science (0321,0378)

A first year student with high academic achievements, in either 0321 or 0323 will be eligible to apply for transfer to the double major program in Physics and Computer Science.
0516 Combined Physics – Electrical Engineering
This program is offered jointly by the School of Physics and Astronomy and the Department of Electrical Engineering (EE).
Applicants must meet the acceptance requirement of both departments, when they graduate, these students get two degrees: B.Sc. in Physics and B.Sc. in EE. The studies last four years.

0321.0369 Physics and Computer Science – dm
Candidates must meet the admission requirements of both programs. Admission to studies in Computer Science is limited. See admission requirements to Computer Science in the School of Mathematical Sciences.

0321 Physics Major – Mathematics Minor (Track 101)
This program offers approximately 75% of the courses in physics as well as the basic courses in the mathematics program.

0321.0351 Physics and Chemistry – dm (Track 355)
This program is for students who wish to obtain broad education in both physics and Chemistry. Applicants must meet the acceptance requirement of the school of Physics. An undergraduate degree in this program with adequate grades allows the student to enroll for graduate studies in either of the two subjects.

0458 Physics and Life Sciences – B.Sc. -sm
This program is offered jointly by the School of Physics and Astronomy and the Faculty of Life sciences for students who want to major in both subjects. An undergraduate degree in this program with adequate grades allows the student to enroll for graduate studies in either of the two fields.

0321. XXXX Physics – dm
This program offers the option to combine studies in physics with any other program from any faculty (as dm). Candidates must meet the admission requirements of both programs.
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