Placement Exams

Placement tests serve to adapt the needs and backgrounds of individual students to the College curriculum. They place entering students at the proper level of study in a given subject. On the one hand, placement tests minimize the repetition of subjects already mastered and, on the other, they reduce the possibility that students might begin their programs with courses for which they are inadequately prepared. Placement tests measure skill in problem solving as well as general knowledge in a subject field. Students who have some background in the areas being tested are urged to review it, but incoming students without such knowledge are not expected to acquire it over the summer preceding entrance.

Placement tests may be taken only at the time of matriculation and each test may be taken only once. Information that describes these tests is sent to incoming first-year and transfer students.

Chemistry Placement Exams

Chemistry Placement Test

The Chemistry Placement Test, taken online in the summer via Canvas (https://canvas.uchicago.edu/), is required for all first-year and transfer students intending to enroll in General, Honors, or Introductory Chemistry. Without a Chemistry Placement Test score, students will not be able to pre-register for Chemistry courses. After the Chemistry Placement Test is scored, the results will be visible in the Student Portal (https://my.uchicago.edu/). The Mathematics Placement Test is also required for students' Chemistry placement. For more information on placement exams, please consult the New Student Advising website (https://college.uchicago.edu/new-student-advising/placement-ap-tests/).

Chemistry Advanced Placement Exam

Incoming first-year and transfer students with a strong Chemistry background (i.e., those who place into CHEM 12100 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2012100) Honors General Chemistry I on the Chemistry Placement Test) will be automatically granted access to the Chemistry Advanced Placement Exam (CAPE). *This exam is optional and offered online via Canvas only at the time of matriculation.*

Eligible students will receive an email during the summer outlining how to sit for the CAPE. Performing well on this exam may qualify a student to place out of the General Chemistry I-II-III course sequence and into more advanced coursework in Chemistry. While their original placement will remain available, the option to begin in CHEM 22000 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2022000) Organic Chemistry I, CHEM 23000 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2023000) Honors Organic Chemistry I, or CHEM 26100 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2026100) Quantum Mechanics (the latter upon also meeting MATH and PHYS course prerequisites) will also be provided.

Students with the Advanced Placement who take advantage of direct enrollment into the aforementioned advanced coursework will be awarded back credit for CHEM 11100-11200-11300 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2011100-11200-11300) Comprehensive General Chemistry I-II-III upon completion of any three of the following courses:

- CHEM 20100-20200 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2020100) Inorganic Chemistry I-II
- CHEM 20300 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2020300) Chemistry of Materials
- CHEM 22700 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2022700) Advanced Organic/Inorganic Laboratory
- CHEM 23300 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2023300) Introduction to Chemical Biology
- CHEM 26100-26200-26300 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2026100) Quantum Mechanics; Thermodynamics; Chemical Kinetics and Dynamics
- CHEM 26700 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2026700) Experimental Physical Chemistry
- CHEM 26800 (http://collegecatalog.uchicago.edu/search/?P=CHEM%2026800) Quantum Molecular and Materials Modeling

This placement option provides the opportunity to fast-track well-prepared students who wish to advance their studies into the various sub-fields of Chemistry, double major or minor in Chemistry, or enroll in advanced courses that require completion of General Chemistry I-II-III as a prerequisite.

Computer Science Placement Exams

Students with prior experience may place out of one or more of the introductory courses by successfully completing placement exam(s). The College and the Department of Computer Science offer three placement exams to help determine the correct starting point:

- The Online Introduction to Computer Science 1 Exam
- The Online Introduction to Computer Science 2 Exam
- The Systems Programming Exam

The Online Introduction to Computer Science Exams may be taken (once) by entering students or by students who entered the College prior to Summer Quarter 2023. These exams will be offered in the summer prior to matriculation.

Solely based on the Online Introduction to Computer Science 1 Exam, students may be placed into:

- CMSC 14100 Introduction to Computer Science I
- CMSC 14200 Introduction to Computer Science II

Students who place into CMSC 14200 Introduction to Computer Science II will be invited to sit for the Online Introduction to Computer Science Exam 2. Solely based on the Online Introduction to Computer Science 2 Exam, students may be placed into CMSC 14300 Systems Programming I.

Students who place into CMSC 14300 Systems Programming I will be invited to sit for the Systems Programming Exam. Solely based on the Systems Programming Exam, students may be placed into CMSC 14400 Systems Programming II.

Students who place into CMSC 14200 Introduction to Computer Science II will receive credit for CMSC 14100 Introduction to Computer Science I upon successfully completing CMSC 14200 Introduction to Computer Science II.

Students who place into CMSC 14300 Systems Programming I will receive credit for CMSC 14100 Introduction to Computer Science I and CMSC 14200 Introduction to Computer Science II upon successfully completing CMSC 14300 Systems Programming I.

Students who are placed into CMSC 14400 Systems Programming II will receive credit for CMSC 14100 Introduction to Computer Science I and CMSC 14200 Introduction to Computer Science II upon passing CMSC 14400 Systems Programming II.

Language Placement Exams

Each year the University of Chicago teaches over 50 different languages. Language placement tests are required of students who plan to continue in languages studied prior to entrance in the University. Placement tests determine where a student begins language study. The results do not confer credit or satisfy the Language Competency Requirement (http://collegecatalog.uchicago.edu/thecollege/languagecompetency/).

In most cases you will not be able to register for courses into which you were not placed, with the exception of the first quarter of an introductory level (in most cases, a 10100 course). Many languages offer online placement tests in Canvas. They also offer placement for heritage language speakers.

For more information about language placement tests, visit Language Placement FAQs (https://languages.uchicago.edu/placement-faqs/).

Mathematics Placement Exams

See also the Placement section on the Mathematics program page (http://collegecatalog.uchicago.edu/thecollege/mathematics/#placement).

The College and the Department of Mathematics offer three placement exams to help determine appropriate starting points for each entering student:

- The Online Mathematics Placement Test (must be taken by all entering students)
- The Higher-Level Mathematics Placement Exam
- The Calculus Accreditation Exam

The Online Mathematics Placement Test must be taken (once) by each entering student in the summer prior to matriculation. The Department offers the other two exams in early September, and may invite students to take one or the other on the basis of their Online Mathematics Placement Test scores.

All students are eligible to take MATH 11200 Studies In Mathematics I or MATH 11300 Studies In Mathematics-2 (or various other courses in Statistics and Computer Science) in order to satisfy the general education requirement in the mathematical sciences.

For students interested in taking Calculus, the following placements are possible based on the Online Mathematics Placement Test:

- MATH 10500 Fundamental Mathematics I
- MATH 13100 Elem Functions and Calculus I

- MATH 15100 Calculus I
- MATH 15200 Calculus II
- MATH 15300 Calculus III, or MATH 15250 Mathematical Methods for Economic Analysis, or MATH 18300 Mathematical Methods in the Physical Sciences I, or MATH 19620 Linear Algebra

Completing the first two quarters of Calculus (MATH 13100-13200 or MATH 15100-15200 or MATH 16100-16200 or MATH 16110-16210) satisfies the general education requirement, as does completing any higher-level course, which then confers back credit for the first two quarters of Calculus. Additionally, completing MATH 15200 confers back credit for MATH 15100.

MATH 10500 is recommended for students who need MATH 13100-13200 in their degree programs but do not place into MATH 13100. Such students should take MATH 10500-13100-13200 in their first year. MATH 10500 counts as a general elective and does *not* count toward the general education requirement in the mathematical sciences.

MATH 13100-13200-13300 and MATH 15100-15200-15300 are the standard Calculus sequences. The former is intended for students with little or no Calculus background, and the course has thrice-weekly lectures and twice-weekly tutorials as required parts of the course. The latter is intended for students with strong pre-Calculus skills and often some Calculus background who demonstrate adequate readiness on the placement test.

For social sciences students interested in economics, the Economics Department recommends taking MATH 15250 after MATH 15200 and before MATH 15300. Thus, economics students with the highest-level Online placement should begin in MATH 15250 (unless they are also interested in one of the physical sciences majors listed below). Economics students with a MATH 13100 placement should take the full MATH 13100-13200-13300 sequence before taking MATH 15250.

Physical sciences students interested in the chemistry, biochemistry, physics, astrophysics, molecular engineering, and/or statistics majors should not take MATH 15250 or MATH 15300 or MATH 19620; instead, they should take the MATH 18300-18400-18500-18600 sequence. To take MATH 18300, a student should have completed MATH 15200 or have earned the highest-level Online placement. Students with an AP Calculus BC score of 5 or an International Baccalaureate Mathematics HL score of 7 willbe invited to begin in MATH 18300, but these scores do not supersede the Online placement, and the MATH 18300 invitation is not equivalent to the (higher) MATH 15300/15250/18300/19620 placement.

Additionally, students who receive a sufficiently high score on the Online Mathematics Placement Test, as well as students who earn a score of 5 on the AP Calculus BC exam or a score of 7 on the International Baccalaureate HL exam, will also receive an invitation to enroll in MATH 16100 Honors Calculus I or MATH 16110 Honors Calculus I (IBL). These are the first courses in the MATH 16100-16200-16300 Honors Calculus I-II-III and MATH 16110-16210-16310 Honors Calculus I (IBL); Honors Calculus II (IBL); Honors Calculus III (IBL) sequences, which are highly theoretical courses that best prepare students for further study in pure mathematics, although they are also taken by many students other than mathematics majors. Students who begin in MATH 16100 Honors Calculus I or MATH 16110 Honors Calculus I (IBL) forgo credit for MATH 15100 Calculus I and/or MATH 15200 Calculus II.

On the basis of the Online Mathematics Placement Test results, namely, by achieving the highest-level Online placement, students may also be invited to take one of the other two exams.

The Calculus Accreditation Exam is for students who do not plan to take further mathematics at the University of Chicago but who wish to earn credit for MATH 15100-15200 Calculus I-II . Most students with Online placement of MATH 15300/15250/18300/19620 earn back credit for MATH 15100 and 15200 by their successful completion of the higher course. But, if such a course is not part of a student's academic plan, they can nevertheless earn back credit for MATH 15100 and 15200 by passing the Calculus Accreditation Exam.

The Higher-Level Mathematics Placement Exam is for students who would like to begin their mathematics coursework at the University of Chicago in a higher-level course than MATH 15300/15250/18300/19620. On the basis of this exam, a student may receive placement into:

- MATH 15910 Introduction to Proofs in Analysis
- MATH 20250 Abstract Linear Algebra , or MATH 20300 Analysis in Rn I, or MATH 20310 Analysis in Rn I (accelerated), or MATH 20320 Analysis in Rn I (IBL)

A small number of students each year receive an invitation to enroll in MATH 20700 Honors Analysis in Rn I . Admission to this course is by invitation only to those first-year students with superior performance on the Higher-Level Mathematics Placement Exam or to those second-years with an excellent record in MATH 16100-16200-16300 Honors Calculus I-II-III or MATH 16110-16210-16310 Honors Calculus I (IBL); Honors Calculus II (IBL); Honors Calculus III (IBL).

Students who are granted three quarters of calculus placement on the basis of the Higher-Level Mathematics Placement Exam and who do not qualify for admission to MATH 20700 Honors Analysis in Rn I will place into one of the courses in the list above. Such students may also consult with one of the Co-Directors of

Undergraduate Studies about the option of beginning with MATH 16100 Honors Calculus I or MATH 16110 Honors Calculus I (IBL), so that they would be eligible for admission to Honors Analysis the following year.

Students who submit a score of 5 on the Calculus AB Advanced Placement exam in mathematics receive placement into MATH 15100 Calculus I. Students who submit scores of 4 or 5 on the AP Calculus BC exam or a 7 on the International Baccalaureate Higher Level Calculus exam receive placement into MATH 15200 Calculus II. Currently, we do not offer course credit or placement for British A-level or O-level examinations.