SEAS MATH PLACEMENT INFORMATION & EXAM

NSOP 2025 - TIME AND DATE TBA

Please note the following policies regarding math placement for entering SEAS students. These policies are fixed, and requests for exemption cannot be made on any basis other than the information below.

SEAS students are not permitted to take MATH UN 1205 (ACCELERATED MULTIVARIABLE CALC). They must instead take APMA E 2000 (MULTV. CALC. FOR ENGI & APP SCI).

AP EXAMS

If you have one of the scores below you <u>must</u> register for the indicated course. You may self-place into a lower level, but if you self-place into a more advanced course you will be required to go back and take the earlier courses in the Calculus sequence. Students who have taken an AP exam are not eliaible to take the placement exam.

Exam	Score	Columbia Placement
Calculus AB	4 or 5	Calculus II (MATH UN 1102)
Calculus BC	4	Calculus II (MATH UN 1102)
Calculus BC	5	Multivariable Calculus for Engi & App Sci (APMA E 2000)
Calculus AB or BC	3 or lower	Calculus I (MATH 1101)

IB EXAMS

If you have one of the scores below you <u>must</u> register for the indicated course. You may self-place into a lower level, but if you self-place into a more advanced course you will be required to go back and take the earlier courses in the Calculus sequence.

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Exam	Score	Columbia Placement
IB HL Mathematics: Analysis and Approaches (2021 or later)	6	Calculus II (MATH UN 1102)
IB HL Mathematics or Further Mathematics (2020 or earlier)	6	Calculus II (MATH UN 1102)
IB HL Mathematics: Applications and Interpretation (2021 or later)	6 or 7	Calculus II (MATH 1102)
IB SL Mathematics (2020 or earlier)	6 or 7	Calculus II (MATH 1102)

Only students with a <u>7 on the IB HL Mathematics</u>: <u>Analysis and Approaches exam (2021 or later)</u> or <u>a 7 on the IB HL Mathematics or Further Mathematics exams (2020 or earlier)</u> are eligible to take the placement test for Multivariable Calculus for Engi & App Sci (APMA E 2000).

A-LEVELS

If you earned a grade of A or B on the A-Level Maths or Further Maths exam, you may begin with Calculus II (MATH UN 1102) or take the placement test for Multivariable Calculus (APMA E 2000). You <u>may not</u> self-place into APMA E 2000 without having taken the SEAS placement exam during NSOP and earned the requisite score.

HIGH SCHOOL CALCULUS, NO STANDARDIZED EXAMS

If you earned an A in a yearlong calculus course in high school, but did not take a standardized advanced placement exam, you may take the placement test for Multivariable Calculus (APMA E 2000) or you may begin with Calculus II (MATH 1102). You <u>may not</u> self-place into APMA E 2000 without having taken the SEAS placement exam during NSOP and earned the requisite score.

Students who did not take AP, IB, or A-level exams, please note: since you will not receive advanced placement credit, you should consider starting with Calculus I (MATH 1101). If you do place into Multivariable Calculus (APMA E 2000) or start with Calculus II (MATH UN 1102), you may be required to take one or more higher-level math courses at a later date to complete the math requirements for their major and ABET guidelines.

UNIVERSITY MULTIVARIABLE CALCULUS WITH B+ OR HIGHER

If you have taken a Multivariable Calculus course at an accredited, four-year college or university and earned a B+ or better, you may follow these steps for potential exemption from APMA E 2000:

- 1. To be considered for this accommodation, you must provide an official college or university transcript for the course showing a letter grade received (B+ or better) and that college credit has been awarded to you;
- 2. Confer with Professor Drew Youngren to see if the course you took is determined by SEAS to be equivalent to APMA E 2000. You should bring the course syllabus with you when you meet with Prof. Youngren;
- 3. Get final approval from SEAS Vice Dean Barclay Morrison for the suggested math placement at Columbia.

ABOUT THE PLACEMENT EXAM

- Students will be informed of their results on the placement exam prior to first-year course registration, which takes place on Friday at the end of NSOP.
- Students must take the correct calculus class as determined by the placement exam.
- These placement requirements exist for the following reasons:
 - 1. Students must master the material covered in Calculus I, Calculus II and APMA E 2000 in order to lay the groundwork for success in the SEAS curriculum.
 - Accreditation guidelines outlined by ABET (formerly the "Accreditation Board for Engineering and Technology") require that students either fulfill the requisite amount of calculus as knowledge for the major or prove equivalent knowledge.

THIS INFORMATION SESSION AND PLACEMENT EXAM ARE FOR SEAS STUDENTS ONLY.

Please follow up with your adviser in the Berick Center for Student Advising if you have any questions.