



UNIVERSITY OF
GEORGIA

University Council

October 10, 2025

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Dear Colleagues:

The attached proposal to revise IB credit guidelines for Mathematics will be an agenda item for the October 17, 2025, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost Benjamin Ayers

Dr. Marisa Anne Pagnattaro



UNIVERSITY OF
GEORGIA

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Franklin College of Arts and Sciences
Department of Mathematics

May 11, 2023

Advanced Placement Council
c/o Director of the Honors Program

To whom it may concern:

The Department of Mathematics and the Franklin College of Arts and Sciences fully supports the attached proposed revisions to the University of Georgia IB Mathematics credit policies.

Sincerely,

Neil Lyall, Head
Department of Mathematics

Tom Mote, Associate Dean
Franklin College of Arts and Sciences

Proposed revisions to the University of Georgia IB Mathematics credit policies

Beginning with its 2021 exams, the International Baccalaureate program changed its mathematics curriculum, introducing two separate tracks: “Analysis and Approaches” and “Applications and Interpretation.” As with other IB curricula, each of these has associated SL (standard level) and HL (higher level) exams, corresponding respectively to 150 hours and 240 hours of instruction.

The current UGA IB credit policy was developed before this bifurcation and so does not distinguish between the two tracks, of which Analysis and Approaches is more technically demanding and covers more advanced material. Accordingly, the Mathematics Department Curriculum Committee voted earlier this academic year to update the policy to the following:

score	Analysis and Approaches HL	Analysis and Approaches SL	Applications and Interpretation HL	Applications and Interpretation SL
4	MATH 1101 (3 cr)	none	MATH 1101 (3 cr)	none
5	MATH 1113 (3 cr), MATH 1101 (0 cr)	MATH 1101 (3 cr)	MATH 1101 (3 cr)	MATH 1101 (3 cr)
6 or 7	MATH 2250 (4 cr), MATH 1113 (0 cr), MATH 1101 (0 cr)	MATH 1101 (3 cr)	MATH 1113 (3 cr), MATH 1101 (0 cr)	MATH 1101 (3 cr)

In comparison to the status quo, this represents a slightly more generous policy. One change is that students who take Analysis and Approaches HL would get credit for MATH 2250 (Calculus I for Science and Engineering) with a 6 or 7. Unusually among our peer institutions, we have not previously given calculus credit for IB exams. Analysis and Approaches HL students would also only require a 5 to get credit for MATH 1113 (Precalculus) whereas they currently require a 6. A more technical difference from the present IB credit policy is that sufficiently high-scoring students on either HL exam would receive exemption from one or more lower-level courses in addition to the higher-level course for which they receive credit. This is consistent with our existing policy for AP exams, and will have the effect that such students will have completed both of their quantitative core requirements (in Areas I and III). The proposed credit policy for both SL exams is identical to the existing one.

On the current version of UGA’s IB equivalence webpage, below the table of equivalences for the mathematics exam is the sentence *“Students who believe their IB preparation may qualify them for credit in Calculus should contact the Math department for an appropriate challenge exam.”* This sentence should be **removed**, given that Calculus credit will now be available from the Analysis and Approaches HL exam. In any event, this was never a very helpful option, as students with both the desire and the qualifications to take advantage of it would want to do so in time to register for a more advanced course in their first semester, and the UGA course challenge policy does not allow incoming freshmen to challenge courses before the start of their first semester.

Rationale: As alluded to above, these changes are prompted by IB’s recent splitting of its mathematics curricula into two different tracks. In deciding upon equivalences, we balanced recognition of the breadth of the IB curricula against the need to make sure that students do not receive credit for courses in the core STEM precalculus/calculus sequence unless they have in fact covered all of the material that subsequent courses depend upon. In particular, as discussed somewhat more below, while the SL exams cover some material from MATH 1113, students need to take the full 1113 course (or another equivalent to it) to be prepared for STEM calculus courses. We do, however, believe that the SL exams

are both substantial enough to warrant credit for MATH 1101, which is outside of the STEM calculus sequence but satisfies the Core Area I math requirement. Similarly, Applications and Interpretation HL covers a good deal of Calculus I but (unlike Analysis and Approaches HL) does not lay quite enough conceptual foundations for a student to be ready for MATH 2260 (Calculus II for Science and Engineering). So a student with a high score on Applications and Interpretation HL should still take MATH 2250 unless they exempt it by other means such as AP Calculus.

In deciding upon score thresholds, we were assisted by a data set from OIR which reported on some metrics for the students who matriculated at UGA from 2017-2021 and submitted IB math scores. (These scores were generally from before the bifurcation in the IB curriculum.) The report included data on scores on the department placement test (used to try to exempt precalculus), and also on scores on any AP Calculus tests taken by the students. All of the students with a 6 or 7 on the old HL Math exam who also took AP Calculus obtained at least a 4 and hence placed out of MATH 2250; this was not true for students who received a 5 on the HL test. Similarly, all students with a 5 on HL who took our placement exam placed out of precalculus, while students with a 4 were not as successful. Among SL students, many failed our placement test, including some who got the maximum score of 7 on the SL exam. This reflects that the SL curricula do not cover all of precalculus.

Content comparison: The curricula of IB math courses are rather broad and it is nontrivial to map them to conventional US mathematics sequences. Both SL curricula include material on linear, polynomial, exponential, and logarithmic functions and their use in modeling, at a level comparable to a general education course such as MATH 1101 (Introduction to Mathematical Modeling). They also cover some other material related to geometry, trigonometry, probability, statistics, and introductory calculus; however, none of these subjects are developed in the depth in which they are explored in corresponding courses at UGA.

The Applications and Interpretation HL curriculum expands on the SL curriculum to include further material on various kinds of functions and transformations thereof, and more advanced trigonometry topics such as inverse trigonometric functions and identities related to unit circle trigonometry. This is sufficient for equivalence with MATH 1113. While Applications and Interpretation HL covers many of the more computational aspects of our Calculus I course MATH 2250, it leaves out important conceptual points such as the limit definition of the derivative and the meaning of the definite integral.

Such points, and much else besides, are covered in the Analysis and Approaches HL curriculum, which includes all of the topics of a standard US STEM Calculus I course such as MATH 2250. Analysis and Approaches HL also includes some material from MATH 2260, but not all: missing topics include tests for convergence of series; physical and geometric applications of the integral such as arclength, surface area, and work; and integration by trigonometric substitution.

The Mathematics Department only considered possible equivalences with MATH courses; we do not pass judgement on whether the units on probability and statistics in the IB curricula should be sufficient for credit for any courses offered by the Statistics Department.

Peer comparison: The curriculum committee reviewed the IB math credit policies of our 15 comparator peer institutions. Of the 12 of these that appear to have updated their policies for the new curriculum, all offer credit for STEM Calculus I (our MATH 2250) for a sufficiently high score on the Analysis and Approaches HL exam. In most cases this credit is given for a score of 5-7, though Iowa State requires a

7. Four of the 12 also give credit for Calculus II based on the Analysis and Approaches HL exam, though as noted above the curriculum does not cover all of our MATH 2260.

Policies on the remaining exams are less consistent, reflecting the breadth of topics that are touched on by the IB curricula. On the SL exams, 4 institutions do not give any credit for Analysis and Approaches and 6 do not give any credit for Applications and Interpretation. In some cases, this may reflect a general institutional policy against credit for SL exams. In most other cases a 5 or higher on an SL exam earns credit for some course below the level of STEM Calculus I; depending on the institution this might be Calculus I for Social Sciences (as at Missouri), the first half of a precalculus sequence (as at Florida), or “Exploring and Understanding Data” (as at Arizona). Kentucky appears to be the only comparator peer that gives STEM Calculus I credit for either SL exam (doing so for the Analysis and Approaches exam).

There is also some variation in the treatment of Applications and Interpretation HL; depending on institution, a student with a high score on this test might only receive elective credit, or receive credit for precalculus, Calculus I for Social Sciences, or STEM Calculus I.

Student impact: The large majority of UGA students who have taken an IB math exam have only taken an SL exam, and such students will be unaffected by these changes, as will students who receive a 4 or lower on Analysis and Approaches HL or a 5 or lower on Applications and Interpretation HL. According to data we received from OIR, in the five entering classes from 2017 to 2021 there were 1645 students who submitted IB math scores; of these, just 137 took an HL exam, with 28 receiving 5's, 9 receiving 6's, and 4 receiving 7's. Thus, barring significant changes in testing demographics and/or performance, the number of students annually for whom the policy would represent a change would be in the high single digits or low double digits.

For students with a 6 or 7 on Applications and Interpretation HL, the new policy would give an exemption from MATH 1101 (and thus from the Core I math requirement) in addition to the current credit for MATH 1113. MATH 1101 is a general education course aimed at non-STEM majors and is not required for any major. Students with a 5 on the more rigorous Analysis and Approaches HL exam would likewise receive both credit for MATH 1113 and exemption from MATH 1101, whereas the current policy gives them only credit for MATH 1101. MATH 1113 (or more advanced courses with a MATH 1113 prerequisite) is required for dozens of majors in STEM, and is also an entrance requirement for Terry College. Under the status quo, it is also possible for students to exempt both MATH 1101 and MATH 1113 by a sufficiently high score on the departmental placement exam. In the OIR dataset, every student with a 5 on HL who attempted to do this was successful.

Students with a 6 or 7 on Analysis and Approaches HL would be affected more significantly, by getting credit for MATH 2250. This course (or courses for which it is a prerequisite) is required for all engineering majors, as well as mathematics and most science majors. The small number of students who take and receive a high score on this exam are predominantly high-achieving STEM majors who will now be able to start with a more advanced math course.

Student progression and graduation: The (likely small number of) students who get MATH 2250 credit from this policy will benefit by being able to proceed directly to MATH 2260 and to other courses with a MATH 2250 prerequisite, which will allow them to progress more rapidly through their majors and to explore other interests. A somewhat larger group will get exemption from both quantitative core requirements whereas before they still would have had one of these requirements unsatisfied. In

principle, this could free up time to progress more rapidly. That said, it is likely that most students in this cohort either would be taking another course that would satisfy the core requirement for their major anyway, or else would have been able to exempt the additional requirement by the department placement test.

Resources needed: There should not be a meaningful impact on the department's resource needs; while the changes will cause a few students to no longer need MATH 1101, 1113, or 2250, the effect should be less than 1% of combined enrollment in these courses.

prepared by Michael Usher

Associate Head and Chair of Curriculum Committee, Department of Mathematics

usher@uga.edu

May 2, 2023

Supplemental Information to IB Mathematics Request

IB Scores and Credit

IB Score	Current Credit
HL4	MATH 1101 (3 hours)
HL5	MATH 1101 (3 hours)
HL6	MATH 1101 (3 hours)
SL5	MATH 1101 (3 hours)
SL6	MATH 1101 (3 hours)
SL7	MATH 1101 (3 hours)

IB Score	Proposed Credit
Analysis and Approaches HL4	MATH 1101 (3 hours)
Analysis and Approaches HL5	MATH 1101 (0 hours), MATH 1113 (3 hours)
Analysis and Approaches HL6	MATH 1101 (0 hours), MATH 1113 (3 hours), MATH 2250 (4 hours)
Analysis and Approaches HL7	MATH 1101 (0 hours), MATH 1113 (3 hours), MATH 2250 (4 hours)
Analysis and Approaches SL4	No credit
Analysis and Approaches SL5	MATH 1101 (3 hours)
Analysis and Approaches SL6	MATH 1101 (3 hours)
Analysis and Approaches SL7	MATH 1101 (3 hours)
Applications and Interpretation HL4	MATH 1101 (3 hours)
Applications and Interpretation HL5	MATH 1101 (3 hours)
Applications and Interpretation HL6	MATH 1101 (0 hours), MATH 1113 (3 hours)
Applications and Interpretation HL7	MATH 1101 (0 hours), MATH 1113 (3 hours)
Applications and Interpretation SL4	No credit
Applications and Interpretation SL5	MATH 1101 (3 hours)
Applications and Interpretation SL6	MATH 1101 (3 hours)
Applications and Interpretation SL7	MATH 1101 (3 hours)

Enrollment in MATH Courses for AY 2023-24 and AY 2024-25

	MATH 1101	MATH 1113	MATH 2250
Fall 2023	2 sections 146 students	73 sections 1300 students	56 sections 1022 students
Spring 2024	2 sections 89 students	41 sections 740 students	40 sections 687 students
Summer 2024	0 sections 0 students	8 sections 232 students	8 sections 213 students
Fall 2024	2 sections 156 students	67 sections 1255 students	52 sections 915 students
Spring 2025	2 sections 45 students	41 sections 735 students	36 sections 650 students
Summer 2025	0 sections 0 students	8 sections 280 students	7 sections 239 students

IB Math Credit Given by Peer and Aspirant Institutions

	IB Exam Score			
Peer Institution	4	5	6	7
Iowa State University	No credit	No credit	AA HL: MATH 1430, 1650 (7 hours) AA SL: MATH 1500, 1510 (6 hours) AI HL: MATH 1500, 1510 (6 hours) AI SL: No credit	AA HL: MATH 1430, 1650 (7 hours) AA SL: MATH 1500, 1510 (6 hours) AI HL: MATH 1500, 1510 (6 hours) AI SL: No credit
Michigan State University	No credit	AA: MTH 116, 132, 133, SST 200 (15 hours) AI: MTH 116, 132, 133, SST 200 (15 hours)	AA: MTH 116, 132, 133, SST 200 (15 hours) AI: MTH 116, 132, 133, SST 200 (15 hours)	AA: MTH 116, 132, 133, SST 200 (15 hours) AI: MTH 116, 132, 133, SST 200 (15 hours)
North Carolina State University - Raleigh	AA HL: MA 131 (3 hours) AA SL: No credit AI HL: MA 121 (3 hours) AI SL: No credit	AA HL: MA 141 (4 hours) AA SL: MA 111 (3 hours) AI HL: MA 121 (3 hours)	AA HL: MA 141 (4 hours) AA SL: MA 111 (3 hours) AI HL: MA 121 (3 hours)	AA HL: MA 141 (4 hours) AA SL: MA 111 (3 hours) AI HL: MA 121 (3 hours)

		AI SL: MA 100-level GEP	AI SL: MA 100-level GEP	AI SL: MA 100-level GEP
Ohio State University	No credit if taken after 2021	No credit if taken after 2021	No credit if taken after 2021	No credit if taken after 2021
Purdue University	AA HL: MA 1XX XXX (4 hours) AA SL: MA 1XX XXX (3 hours) AI HL: MA 1XX XXX (4 hours) AI SL: MA 1XX XXX (3 hours)	AA HL: MA 16500 (4 hours) AA SL: MA 16010 (3 hours) AI HL: MA 1XX XXX (4 hours) AI SL: MA 1XX XXX (3 hours)	AA HL: MA 16500 (4 hours) AA SL: MA 16010 (3 hours) AI HL: MA 1XX XXX (4 hours) AI SL: MA 1XX XXX (3 hours)	AA HL: MA 16500 (4 hours) AA SL: MA 16010 (3 hours) AI HL: MA 1XX XXX (4 hours) AI SL: MA 1XX XXX (3 hours)
Stony Brook University	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 6 hours AA SL: 6 hours AI HL: 6 hours AI SL: 6 hours	AA HL: 6 hours AA SL: 6 hours AI HL: 6 hours AI SL: 6 hours	AA HL: 6 hours AA SL: 6 hours AI HL: 6 hours AI SL: 6 hours
University of Arizona	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 120R, 125 (6 hours) AA SL: MATH 107 (3 hours) AI HL: MATH 107 (3 hours) AI SL: No credit	AA HL: MATH 120R, 125 (6 hours) AA SL: MATH 107 (3 hours) AI HL: MATH 107 (3 hours) AI SL: No credit	AA HL: MATH 120R, 125 (6 hours) AA SL: MATH 107 (3 hours) AI HL: MATH 107 (3 hours) AI SL: No credit
University of California - Davis	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: 8 hours AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: 8 hours AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: 8 hours AI SL: No credit
University of Florida	AA HL: MAC 1147 (3 hours) AA SL: MAC 1147 (3 hours) AI HL: MAC 1147 (3 hours) AI SL: MAC 1147 (3 hours)	AA HL: MAC 1147, 2233 (7 hours) AA SL: MAC 1147, 2233 (7 hours) AI HL: MAC 1147, 2233 (7 hours) AI SL: MAC 1147, 2233 (7 hours)	AA HL: MAC 1147, 2233 (7 hours) AA SL: MAC 1147, 2233 (7 hours) AI HL: MAC 1147, 2233 (7 hours) AI SL: MAC 1147, 2233 (7 hours)	AA HL: MAC 1147, 2233 (7 hours) AA SL: MAC 1147, 2233 (7 hours) AI HL: MAC 1147, 2233 (7 hours) AI SL: MAC 1147, 2233 (7 hours)
University of Iowa	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 1020, 1850 (8 hours) AA SL: No credit AI HL: MATH 1340, 1350 (8 hours) AI SL: No credit	AA HL: MATH 1850, 1860 (8 hours) AA SL: MATH 1350 (4 hours) AI HL: MATH 1340, 1380 (8 hours) AI SL: No credit	AA HL: MATH 1850, 1860 (8 hours) AA SL: MATH 1340, 1380 (8 hours) AI HL: MATH 1340, 1380 (8 hours) AI SL: No credit

University of Kentucky	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MA 114 (4 hours) AA SL: MA 113 (4 hours) AI HL: MA 113 (4 hours) AI SL: MA 123 (4 hours)	AA HL: MA 114 (4 hours) AA SL: MA 113 (4 hours) AI HL: MA 113 (4 hours) AI SL: MA 123 (4 hours)	AA HL: MA 114 (4 hours) AA SL: MA 113 (4 hours) AI HL: MA 113 (4 hours) AI SL: MA 123 (4 hours)
University of Maryland - College Park	AA HL: LI (4 hours) AA SL: No credit AI HL: LI (4 hours) AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 140, STAT 100 (7 hours) AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 140, STAT 100 (7 hours) AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 140, STAT 100 (7 hours) AI SL: No credit
University of Missouri - Columbia	AA HL: MATH 1160 (5 hours) AA SL: MATH 1100 (3 hours) AI HL: MATH 1100 (4 hours) AI SL: MATH 1050 (3 hours)	AA HL: MATH 1160, 1500 (10 hours) AA SL: MATH 1100, 1400 (6 hours) AI HL: MATH 1100, 1400 (6 hours) AI SL: No credit	AA HL: MATH 1160, 1500 (10 hours) AA SL: MATH 1100, 1400 (6 hours) AI HL: MATH 1100, 1400 (6 hours) AI SL: No credit	AA HL: MATH 1160, 1500 (10 hours) AA SL: MATH 1100, 1400 (6 hours) AI HL: MATH 1100, 1400 (6 hours) AI SL: No credit
Virginia Polytechnic Institute and State University	AA HL: MATH 1025, 1026 (6 hours) AA SL: No credit AI HL: MATH 1XXX (4 hours) AI SL: No credit	AA HL: MATH 1026, 1225 (7 hours) AA SL: MATH 1XXX (3 hours) AI HL: MATH 1XXX (4 hours) AI SL: MATH 1XXX (3 hours)	AA HL: MATH 1225, 1226 (8 hours) AA SL: MATH 1XXX (3 hours) AI HL: MATH 1XXX (4 hours) AI SL: MATH 1XXX (3 hours)	AA HL: MATH 1225, 1226 (8 hours) AA SL: MATH 1XXX (3 hours) AI HL: MATH 1XXX (4 hours) AI SL: MATH 1XXX (3 hours)
IB Exam Score				
Aspirational Peer Institution	4	5	6	7
Pennsylvania State University	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 021, STAT 2000 (4 hours) AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 021, STAT 2000 (4 hours) AI SL: No credit	AA HL: MATH 140, STAT 100 (7 hours) AA SL: No credit AI HL: MATH 021, STAT 2000 (4 hours) AI SL: No credit

The University of Texas at Austin	AA HL: M 408K AA SL: No credit AI HL: M 408K AI SL: No credit	AA HL: M 408C AA SL: No credit AI HL: M 408C AI SL: No credit	AA HL: M 408C AA SL: No credit AI HL: M 408C AI SL: No credit	AA HL: M 408C AA SL: No credit AI HL: M 408C AI SL: No credit
University of California - Berkeley	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit
University of California - Los Angeles	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: 8 hours AA SL: No credit AI HL: No credit AI SL: No credit
University of Illinois at Urbana-Champaign	AA HL: MATH 115, STAT 100 (6 hours) AA SL: STAT 100 (3 hours) AI HL: MATH 181, 124, STAT 100 (9 hours) AI SL: MATH 181, STAT 100 (6 hours)	AA HL: MATH 115, STAT 100 (6 hours) AA SL: MATH 112, STAT 100 (6 hours) AI HL: MATH 181, 124, STAT 100 (9 hours) AI SL: MATH 181, STAT 100 (6 hours)	AA HL: MATH 220, STAT 100 (8 hours) AA SL: MATH 115, STAT 100 (6 hours) AI HL: MATH 181, 124, STAT 100 (9 hours) AI SL: MATH 181, STAT 100 (6 hours)	AA HL: MATH 220, STAT 100 (8 hours) AA SL: MATH 115, STAT 100 (6 hours) AI HL: MATH 181, 124, STAT 100 (9 hours) AI SL: MATH 181, STAT 100 (6 hours)
University of Michigan - Ann Arbor	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 120 (4 hours) AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 120, 121 (8 hours) AA SL: No credit AI HL: No credit AI SL: No credit
University of Minnesota - Twin Cities	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 1271, 1271 (8 hours) AA SL: No credit AI HL: MATH 1271, STAT 3011 (8 hours) AI SL: No credit	AA HL: MATH 1271, 1271 (8 hours) AA SL: No credit AI HL: MATH 1271, STAT 3011 (8 hours) AI SL: No credit	AA HL: MATH 1271, 1271 (8 hours) AA SL: No credit AI HL: MATH 1271, STAT 3011 (8 hours) AI SL: No credit
University of Virginia	AA HL: No credit AA SL: No credit AI HL: No credit AI SL: No credit	AA HL: MATH 1310 (3 hours) AA SL: MATH 1310 (3 hours) AI HL: MATH 1310 (3 hours) AI SL: MATH 1310 (3 hours)	AA HL: MATH 1310 (3 hours) AA SL: MATH 1310 (3 hours) AI HL: MATH 1310 (3 hours) AI SL: MATH 1310 (3 hours)	AA HL: MATH 1310 (3 hours) AA SL: MATH 1310 (3 hours) AI HL: MATH 1310 (3 hours) AI SL: MATH 1310 (3 hours)

University of Wisconsin - Madison	AA HL: MATH X03 (3 hours) AA SL: MATH X03 (3 hours) AI HL: MATH X03 (3 hours) AI SL: MATH X03 (3 hours)	AA HL: MATH 221 (5 hours) AA SL: MATH 221 (5 hours) AI HL: MATH 211 (4 hours) AI SL: MATH 211 (4 hours)	AA HL: MATH 221 (5 hours) AA SL: MATH 221 (5 hours) AI HL: MATH 211 (4 hours) AI SL: MATH 211 (4 hours)	AA HL: MATH 221 (5 hours) AA SL: MATH 221 (5 hours) AI HL: MATH 211 (4 hours) AI SL: MATH 211 (4 hours)
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