Mt. SAC Math Placement and Support Recommendation Model

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Phase 2: For placement starting Summer 2019

Draft for Math Department meeting (September 14, 2018)

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Note: HS GPA means a student's 9th-grade, 10th-grade, 11th-grade, or 12th-grade cumulative unweighted U.S. high school GPA.

Mt. SAC Math Course Number and Title	Minimum Requirements for Placement	Support Recommendations [4]
180 (Calculus I) **180+18** (Calculus I w/ support)	**Enrolled in HS Precalculus or higher** [3] (If no HS coursework, meet with Math Faculty Advisor to obtain placement.)	• If HS GPA < 3.4, then corequisite support is recommended. • If student didn't receive C or better in HS Precalculus or higher, then corequisite support is strongly recommended. • If no HS GPA, please visit a Math Faculty Advisor for support recommendations.
140 (Business Calculus) **140+14** (Business Calculus w/ support)	**Enrolled in HS Precalculus or HS College Algebra or higher** (If no HS coursework, meet with Math Faculty Advisor to obtain placement.)	• If HS GPA < 3.4, then corequisite support is recommended. • If student didn't receive C or better in HS Precalculus or HS College Algebra or higher, then corequisite support is strongly recommended. • If no HS GPA, please visit a Math Faculty Advisor for support recommendations.
160 (Precalculus) **160+16** (Precalculus w/support)	**Enrolled in HS Trigonometry or higher** (If no HS coursework, meet with Math Faculty Advisor to obtain placement.)	• If HS GPA < 3.4, then corequisite support is recommended. • If student didn't receive C or better in HS Trigonometry or higher, then corequisite support is strongly recommended. • If no HS GPA, please visit a Math Faculty Advisor for support recommendations.
150 (Trigonometry) **150+15** (Trigonometry w/ support) **130** (College Algebra) **130+13** (College Algebra w/ support)	**None** [2]	• If $2.6 \leq$ HS GPA < 3.4 and not enrolled in a HS Calculus course or higher, then corequisite support is recommended. • If HS GPA < 2.6 and enrolled in HS Precalculus or higher, then corequisite support is recommended. • If HS GPA < 2.6 and not enrolled in HS Precalculus or higher, then corequisite support is strongly recommended. • If no HS GPA/coursework, please visit a Math Faculty Advisor for support recommendations.
110/110H (Statistics) **110S** (Statistics) Statistics w/ support option pending Math Department decision.	**None** [1]	• If $2.3 \leq$ HS GPA < 3.0, then support is recommended. • If HS GPA < 2.3, then support is strongly recommended. • If no HS GPA/coursework, please visit a Math Faculty Advisor for support recommendations.
120 (Finite Math) **100** (Survey of College Math)	**None** [1]	None

71 (Intermediate Algebra) **71+7** (Intermediate Algebra w/ support) **71A/71B** (Intermediate Algebra) **71X** (Decision to phase out Math 71X pending.) **70S** (Decision to phase out Math 70S pending.) **61** (Will be phased out by Summer 2019.) **51** (Elementary Algebra) **51+5** (Elementary Algebra w/ support) **51A/51B** (Will be phased out by Summer 2019.) **50** (Prealgebra)	**None**	Please visit a Math Faculty Advisor for support recommendations.

(1) Students are strongly recommended to complete Algebra 1, Integrated Math 2, Elementary Algebra, or equivalent before taking Math 100, Math 110, or Math 120. If a student has self-reported Algebra 1 (or higher), then the student does not need to be given this message on their AQ results.

(2) Students are strongly recommended to complete Algebra 2, Integrated Math 3, Intermediate Algebra, or equivalent before taking Math 130 or Math 150. If a student has self-reported Algebra 2 (or higher), then the student does not need to be given this message on their AQ results.

(3) Students are strongly recommended to have knowledge of Trigonometry topics (from a Trigonometry, Precalculus, Math Analysis, Integrated Math 3, or higher class) before taking Math 180. If not, we strongly recommend that the student take Math 150 (Trigonometry), Math 150 + Math 15 (Trigonometry with support), or Math 160 + Math 16 (Precalculus with support).

(4) Support recommendations based on HS GPA and coursework are given at end of Assessment Questionnaire.

Here's another view of the support recommendations for Math 180 (Calculus I):

	HS Precalculus or higher with a C or better	**Didn't receive C or better in HS Precalculus or higher**
HS GPA ≥ 3.4	No support recommendation	Corequisite strongly recommended
HS GPA < 3.4	Corequisite recommended	Corequisite strongly recommended

Here's another view of the support recommendations for Math 140 (Business Calculus):

	HS Precalculus or College Algebra or higher with a C or better	**Didn't receive C or better in HS Precalculus or College Algebra or higher**
HS GPA ≥ 3.4	No support recommendation	Corequisite strongly recommended
HS GPA < 3.4	Corequisite recommended	Corequisite strongly recommended

Here's another view of the support recommendations for Math 160 (Precalculus):

	HS Trigonometry or higher with a C or better	**Didn't receive C or better in HS Trigonometry or higher**
HS GPA ≥ 3.4	No support recommendation	Corequisite strongly recommended
HS GPA < 3.4	Corequisite recommended	Corequisite strongly recommended

Here's another view of the support recommendations for Math 130 (College Algebra) and Math 150 (Trigonometry):

	Enrolled in HS Calculus	Enrolled in HS Precalculus	Didn't enroll in HS Precalculus
HS GPA ≥ 3.4	No support recommendation	No support recommendation	No support recommendation
$2.6 \leq$ HS GPA < 3.4	No support recommendation	Corequisite recommended	Corequisite recommended
HS GPA < 2.6	Corequisite recommended	Corequisite recommended	Corequisite strongly recommended

Here's another view of the support recommendations for Math 110 (Statistics):

	Any coursework
HS GPA ≥ 3.0	No support recommendation
$2.3 \leq$ HS GPA < 3.0	Corequisite recommended
HS GPA < 2.3	Corequisite strongly recommended

Other notes:

1. The Math Placement Tests will no longer be used.
2. The Geometry competency test and Intermediate Algebra-First Half competency test will no longer be used.
3. HS GPA's and coursework are still self-reported via the Assessment Questionnaire.
4. Types of Students
    a. **Special Admit** and **Dual Enrollment** students will be given the same placements and recommendations as high school graduates.
    b. Students who have taken **some math in college** or have an **associate's degree or higher** may decide to use their high school records for placement. If so, they will be given the same placements and recommendations as high school graduates. If not, they will be advised to bring their college transcript(s) to Admissions and Records.
    c. Students with an **Adult High School Diploma** or **High School Equivalency** will be given the same placements as high school graduates. These students will be recommended to first visit a counselor and then a Math Faculty Advisor to help determine recommended support options (if any).
    d. **International students** with no U.S. high school GPA or coursework would be eligible to take any math course numbered 160 or below. These students would be advised to visit a Math Faculty Advisor for support recommendations or for placement into Math 180.
5. Math Faculty Advisors are math faculty who are trained to determine placement into Math 180, as well as give support recommendations to students.
    a. For example, an international student who would like to take Math 180 would see a Math Faculty Advisor for placement and assistance in deciding whether or not to take the Math 18 corequisite course for support.
    b. As another example, a student who truly feels he/she is not prepared to take a transfer-level math course might visit a Math Faculty Advisor for advice about support options (for example, corequisite courses, lower-level courses, noncredit courses, Math Success Lab review options, etc.).
    c. Math Faculty Advisors will also be able to advise students who wish to place into Math 181 or higher.
    d. Math Faculty Advisors will not counsel students about which math class they should take for their major or transfer goals. That is the role of counselors.
    e. Any student with questions about Mt. SAC's math courses may see a Math Faculty Advisor.
    f. Students are given a minimum placement by the AQ and are advised to meet with a Math Faculty Advisor if they feel they should be placed higher or if they are uncertain about their placement.
6. The Math Department will work with the Counseling Department to determine the best placement recommendations based on guided pathways "career paths" (also called "meta-majors" or "program clusters").

Sample Placement Message A

Student A has the following characteristics:

- Selected STEM career path
- Selected Engineering Transfer Program of Study
- HS GPA 2.9
- Highest HS math course: Enrolled in Precalculus

Here is a sample message that Student A would get at the end of the AQ:

Based on your selected career path and major, we recommend that you take the following math course:
Math 180 (Calculus and Analytic Geometry) *

Based on your high school GPA, we recommend that you also enroll in Math 18, a corequisite support class for Math 180.

You are also eligible to take:
Math 100 - Survey of College Math
Math 110 - Elementary Statistics. Support is available by enrolling in Math 110 + Math 11.
Math 110S - Statistics with support
Math 120 - Finite Mathematics
Math 130 - College Algebra. Support is available by enrolling in Math 130 + Math 13.
Math 140 - Calculus for Business. Support is available by enrolling in Math 140 + Math 14.
Math 150 - Trigonometry. Support is available by enrolling in Math 150 + Math 15.
Math 160 - Precalculus Mathematics. Support is available by enrolling in Math 160 + Math 16. *

* If you do not have knowledge of Trigonometry topics (from a Trigonometry, Precalculus, Math Analysis, Integrated Math 3, or higher class), we strongly recommend that you take Math 150 (Trigonometry), Math 150 + Math 15 (Trigonometry with support), or Math 160 + Math 16 (Precalculus with support).

Note: You may also take any of our developmental math courses. We recommend that you visit a Math Faculty Advisor if you plan to take LERN 48 (Basic Math Skills Review), LERN 49 (Math Skills Review), Math 50 (Prealgebra), Math 51 (Elementary Algebra), Math 51 + Math 5 (Elementary Algebra with support), Math 71 (Intermediate Algebra), or Math 71 + Math 7 (Intermediate Algebra with support).

If you'd like to learn more about how to be successful in a math class, we recommend taking Math 96. Math 96 is a 5-week, 1-unit, pass/no pass, non-degree-applicable course that may be taken concurrently with another math course.

If you have any questions about your placement, we recommend that you visit a Math Faculty Advisor.

Sample Placement Message B

Student B has the following characteristics:

- Selected Teaching & Education career path
- Selected Child Development AS
- HS GPA 3.2
- Highest HS math course: Algebra 1

Here is a sample message that Student B would get at the end of the AQ:

Based on your selected career path and major, we recommend that you take one or more of the following math courses:
Math 100 (Survey of College Math)
Math 110 (Elementary Statistics)

You are also eligible to take:
Math 110 + Math 11 - Elementary Statistics with support
Math 110S - Statistics with support
Math 120 - Finite Mathematics
Math 130 - College Algebra. Support is available by enrolling in Math 130 + Math 13. *
Math 150 - Trigonometry. Support is available by enrolling in Math 150 + Math 15. *

* If you have not taken Algebra 2, Intermediate Algebra, Integrated Math 3, or a higher-level course, then we highly recommend you take Math 71 or Math 71 + Math 7 before taking Math 130, Math 140, Math 150, or Math 160.

Note: You may also take any of our developmental math courses. We recommend that you visit a Math Faculty Advisor if you plan to take LERN 48 (Basic Math Skills Review), LERN 49 (Math Skills Review), Math 50 (Prealgebra), Math 51 (Elementary Algebra), Math 51 + Math 5 (Elementary Algebra with support), Math 71 (Intermediate Algebra), or Math 71 + Math 7 (Intermediate Algebra with support).

If you'd like to learn more about how to be successful in a math class, we recommend taking Math 96. Math 96 is a 5-week, 1-unit, pass/no pass, non-degree-applicable course that may be taken concurrently with another math course.

If you have any questions about your placement, we recommend that you visit a Math Faculty Advisor.

Changes from August 24, 2018 proposal:

- Math 140
  - Added an "Enrolled in HS Precalculus or College Algebra or higher" requirement for placement into Math 140.
  - If no HS coursework, student must meet with Math Faculty Advisor to obtain placement into Math 140.
  - Updated support recommendations as described in table.
- Math 160
  - Added an "Enrolled in HS Trigonometry or higher" requirement for placement into Math 160.
  - If no HS coursework, student must meet with Math Faculty Advisor to obtain placement.
  - Updated support recommendations as described in table.
- Remove recommendation that students have Trigonometry skills before taking Math 160, since students will need to take HS Trigonometry to place into Math 160.
- Added recommendation that students have Trigonometry skills before taking Math 180. The reasoning is that some HS Precalculus classes might not have a Trigonometry prerequisite and might not cover Trigonometry topics (for example, if they flip the Trigonometry/Precalculus sequence).
- Added LERN 48 and LERN 49 to list of developmental math course options.
- Removed unnecessary empty table of guided pathways career paths.
- Note: We will need to add a "College Algebra" check box on the Assessment Questionnaire.