

MATH Classes for STEM Majors

- **STEM majors should be placed into a sequence of algebra and calculus classes in their first semester, not into MATH 1530.**

Typically STEM students must take a sequence of math classes (MATH 1005, MATH 1710, MATH 1720, and MATH 1910, based on ACT placement) to reach their required classes of MATH 1720 or MATH 1910 (or higher). **These students need to begin this algebra/calculus track their first semester. Taking Math 1530 does NOT progress a student on this sequence and will NOT help a student be more successful in the algebra/calculus track if taken first.** If a major requires both MATH 1530 and classes in the algebra/calculus sequence **be sure the student starts the algebra/calculus sequence their first semester.** They should take MATH 1530 in a later semester. (For more info. see the table for algebra/calculus track prerequisites. **Note that MATH 1130 is intended for non-science majors; science majors who must take a beginning algebra class should take MATH 1005.**)

- **STEM majors who need math learning support should take MATH 1005 & MATH 0105 not MATH 1530 & MATH 0153.** (See the bullet point above and the flow chart for math learning support advising.)
- **Do not place STEM majors in MATH 1830.** This class is calculus for business majors. Although it may be listed as an option in DegreeWorks for some majors due to TTP agreements, there are very, very few STEM majors for whom MATH 1830 is an appropriate choice. **STEM majors who are required to take a calculus class should take MATH 1910, not MATH 1830.**
- **If student needs Math 1720 or higher in their program and college level ready (DSPM 4 or Math ACT 19+) they need to start with Math 1710, not Math 1130** (student cannot earn credit for both Math 1130 & 1710)

General Chemistry and General Biology Prerequisites

- BIOL 1110 prereq: High school Biology and Chemistry completed* or BIOL 1030 or CHEM 1030 or CHEM 1110, call M&S for permit approval 615-230-3261 or student may email sciencechair@volstate.edu
- CHEM 1110 prereq: ACT Math 19 or higher or concurrent enrollment Math 1130 or higher, completion of high school chemistry* or CHEM 1030, Co-req Math 1130, Math 1710 or higher

(CHEM 1120 requires completion of Math 1130, 1710 or higher) - call M&S for permit approval 615-230-3261 or student may email sciencechair@volstate.edu

- **If a student must take a class (BIOL 1030 or CHEM 1030) to meet one of these prerequisites, which class should they take?**
 - If a student needs a prerequisite class for ONLY BIOL 1110 (but not CHEM 1110) they should take BIOL 1030.
 - If a student needs a prerequisite class for only CHEM 1110 or both CHEM 1110 and BIOL 1110, they should take CHEM 1030.

GPA Does NOT Satisfy/Substitute an ACT Prerequisite for Science Courses

For any science course that has a prerequisite ACT score, GPA is not a substitute or equivalence for the required ACT score. GPA is used only for learning support placement, not science class placement. However, a math Accuplacer test of 250 or higher can be used to satisfy a requirement of an ACT math subscore of 19.

Math and Science AS Program

If a student is in General Studies but is interested in transferring to a STEM major, refer them to ScienceChair@volstate.edu or Dana Powers (MSD completion advisor) to discuss switching to the Math and Science AS program (essentially a General Studies STEM major).

Other Notes

Majors/Programs students often inquire about which Vol State does not offer:

- Wildlife Management/Fisheries – Biology
- Architecture – Civil Engineering
- Meteorology – Electrical Engineering
- Agriculture – Math and Science A.S. (Agri-Science, Agri-Business and Agri-Comm discontinued but templates are still available)
- Paleontology – Geoscience

Pre-Dental Hygiene – make sure to advise off templates. Not all programs require the TTP requirements.

PSCI 1030, GEOL 1040, PHYS 1030, ASTR 1030 must have Math ACT 9/Math Accuplacer 250+ or completion of Math 1005

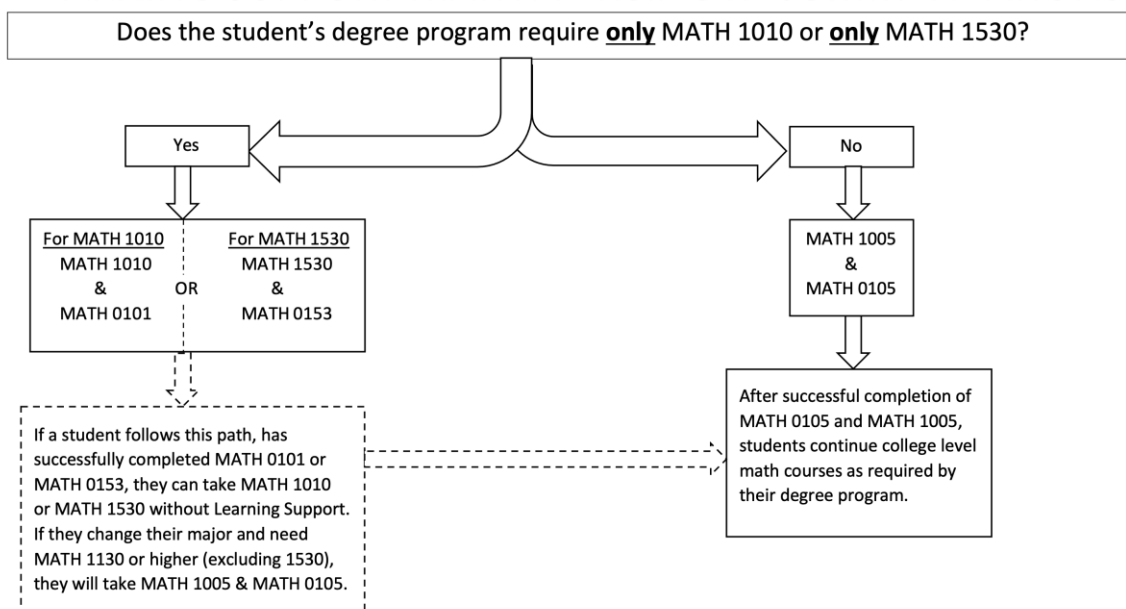
Students can not combine BIOL 1030 with BIOL 1010 or 1020 to fulfill general education science requirements.

Prerequisites of MATH Classes in the Algebra/Calculus Sequence for STEM Majors

Class		Prerequisite
MATH 1005	Algebra Essentials	ACT Math subscore of 19 (or equivalent), or completion of Learning Support Competencies 1-5 , or concurrent registration in MATH 0105
MATH 1710	Precalculus Algebra	ACT Math subscore of 19 or equivalent, or completion of MATH 1005 with a grade of B or higher.
MATH 1720	Precalculus Trigonometry	Either MATH 1710 with a grade of C or higher, completion of MATH 1130 with a grade of A, or four years of high school mathematics including Algebra II and an ACT Math subscore of 23 (or equivalent)
MATH 1730	Precalculus	ACT MATH subscore of 21 or equivalent, or completion of MATH 1005 with a grade of B or higher, or completion of MATH 1130 with a grade of C or higher or MATH 1710 with a grade of C or higher.
MATH 1910	Calculus I	Four years of high school mathematics, including trigonometry, and an ACT math subscore of 25 or greater or MATH 1720 or MATH 1730 (either with a grade of C or higher)

If a student meets the qualifications in **bold** above they can place directly into the class without a prerequisite math class or corequisite learning support. As a prerequisite to MATH 1910, students will take either the sequence of MATH 1710 & MATH 1720 or only MATH 1730. **Most students need to take 1710 & 1720.** MATH 1730 is generally considered to be more difficult.

LEARNING SUPPORT MATH ADVISING RECOMMENDATIONS



IMPORTANT: All MATH Learning Support classes will be linked to a specific college-level course with the same section number. For example, MATH 0101-X01 is linked to MATH 1010-X01. Exceptions are night courses that are linked to online sections. For Fall 2023, these exceptions are MATH 0101-X62, MATH 0105-X08 and X62, and MATH 0153-X62. These are paired with an online college-level section.