

Gettysburg College
Columbia University Pre-Combined Plan Curriculum Guide

Foundation Courses Required of All Majors

Mathematics:	Math111, Math112, Math211
Physics:	Phy111, 112, 211 or Phy109, Phy110 (includes labs)
Chemistry:	Chem105 or 107 (includes lab)
Computer Science:	CS107 or CS111
Economics:	Econ103 or Econ104
College writing:	Eng101 or other FY writing

Liberal Arts Curriculum must include **7 courses** from the Arts, Social Sciences, and Humanities.

Admission guaranteed for students enrolled at Gettysburg College in Fall 2018 and before if: enrolled at GC past 2 years, GPA>3.3 for all- and technical-course averages, B or better on first attempt in all science and math pre-engineering courses, completion of all foundational and major-specific prerequisite courses by end of spring of year applying, favorable recommendation letters, and English proficiency.

Admission is not guaranteed for students enrolled at Gettysburg College in Fall 2019 and thereafter, but encouraged to apply if: enrolled at GC past 2 years, GPA>3.3 for all- and technical-course averages, B or better on first attempt in all science and math pre-engineering courses, completion of all foundational and major-specific prerequisite courses by end of spring of year applying, favorable recommendation letters, and English proficiency.

Additional Courses are required by the programs below.

Applied Mathematics or Applied Physics

Mathematics:	Math225
Physics:	Phy111, 112, 211 instead of Phy109, 110 OR Phy109, 110 plus classical/quantum waves course
Biology:	Bio110 and Bio 111 are optional since Chem 107 or 105 is required

Biomedical Engineering

Mathematics:	Math 212, 225
Physics:	Phy111, 112, 211 instead of Phy109, 110 OR Phy109, 110 plus classical/quantum waves course
Chemistry:	Chem108 (includes lab)
Computer Science:	CS107 (want python)
Biology:	Bio110, Bio112
Electrical Engineering:	Phy240 (or ELEN E1201 summer before or during)

Chemical Engineering

Mathematics:	M225 or Phy255
Chemistry:	Chem108 (includes lab), Chem203 (includes lab)
Computer Science:	CS107 (want python)

Civil Engineering

Mathematics:	Math212 and M225 or Phy255
Engineering Mechanics:	Phy319 (or ENME E3105 summer before or during)
Computer Science:	CS107 (Matlab preferred)
Environmental Studies:	ES122

Computer Engineering

Mathematics:	Math212 and M225 or Phy255
Electrical Engineering:	Phy240 (or ELEN E1201 summer before or during)
Computer Science:	(programming in JAVA required) CS201 (discrete math)

Computer Science

Computer Science: (programming in JAVA required) CS201 (discrete math), CS216

Earth and Environmental Engineering

Mathematics: Math212 and M225 or Phy255
Probability and Statistics: Math107 (or W3600 may be taken at Columbia)
Chemistry: Chem108 (includes lab)
Science Elective (choose one): Chem203; Phy111,112, 211 sequence ; BIO110

Earth and Environmental Sciences/Engineering :

ES223 (or EESC W4001 may be taken at Columbia)
ES318 (or EESC V2100 may be taken at Columbia)
ES240 (or EAEE E2002 may be taken at Columbia)

Electrical Engineering

Mathematics: Math212 and M225 or Phy255
Physics: Phy111, 112, 211 instead of Phy109, 110
OR Phy109, 110 plus classical/quantum waves course
Electrical Engineering: Phy240 (or ELEN E1201 summer before or during)
Computer Science: CS111

Engineering Mechanics

Mathematics: M225
Physics: Phy319 (or ENME E3105 summer before or during)

IEOR: Engineering Management Systems, Engineering Management Systems, or Operations Research

Mathematics: Math212, Math225 (or Math UN2030 may be taken at Columbia, unless interested in Financial Engineering)
Computer Science: CS111 (JAVA), CS112 as pre-req. for CS216 (JAVA preferred over C)
Economics: Econ241 (statistics), Econ267 (finance or E2261 may be taken at Columbia, unless interested in Financial Engineering)

Materials Science and Engineering

Mathematics: M225

Physics: Phy111, 112, 211 instead of Phy109, 110
OR Phy109, 110 plus classical/quantum waves course

Mechanical Engineering

Mathematics: M212 and M225 or Phy255

Physics/Biology (choose one): Phy111, 112, 211 instead of Phy109, 110;
If taken Phy109,110, then choose Bio110 or Bio111

Engineering Mechanics: Phy319 (or ENME E3105 summer before or during)

Electrical Engineering: Phy240 (or ELEN E1201 summer before or during)