

Missouri University of Science and Technology BS CpE

Effective Catalog Year 2026

Approved 2025

Freshman Year		Sophomore Year		Junior Year		Senior Year	
Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Math 1214 4 hrs or Math 1210/ 1211 4/4 hrs	Math 1215 4 hrs	Math 3304 3 hrs	Math 2222 4 hrs	Stat 3117 3 hrs	Comp Eng 3150 3 hrs	Comp Eng 5410 3 hrs	Comp Eng Elective D 3 hrs
Fresh Eng 1100 1 hr	General Ed Elective 3 hrs	Comp Sci 1570 and 1580 4 hrs	Comp Eng 2210 and 2211 4 hrs	Math Elective 3 hrs	Comp Eng Elective A 3 hrs	Comp Eng Elective B 3 hrs	Comp Eng Elective E 3 hrs
Chem 1305 and 1319 5 hrs	Comp Sci 1500 3 hrs	Physics 2135 4 hrs	Comp Sci 1200 3 hrs	Comp Eng 3110 3 hrs	English 3560 or 1160 3 hrs	Comp Eng Elective C 3 hrs	Pro Dev Elective 3 hrs
Hist 1200 or 1300 or 1310 or Pol Sci 1200 3 hrs	Physics 1135 4 hrs	Elec Eng 2100 and 2101 4 hrs	Comp Sci 1575 3 hrs	Elec Eng 2200 and 2201 4 hrs	Comp Sci 3800 or 2500 3 hrs	Eng Sci Elective 3 hrs	Free Elective 3 hrs
English 1120 3 hrs	General Ed Elective 3 hrs		Elec Eng 2120 3 hrs	Speech 1185 3 hrs	Elec Eng 3410 3 hrs	General Ed Elective 3 hrs	
			Comp Eng 2010 1 hr	- Comp Eng 2210 - English 3560 or 1160 - Comp Eng 3150 - Comp Eng 3110 - Elec Eng 2200 - Comp Sci 1575		Comp Eng Sr Proj I 4096 1 hr	Comp Eng Sr Proj II 4097 3 hrs
16 hours	17 hours	15 hours	18 hours	16 hours	15 hours	16 hours	15 hours

 Core courses with C or better requirement

Single line denotes prerequisite course. Double line denotes co-requisite course. Course prerequisites and Elective Requirements are listed on the following page.

If you Drop Elec Eng 2100, Elec Eng 2200, Comp Eng 2210, etc., you must also drop the co-requisite laboratories.

Disclaimer: This summary may assist students and advisors in scheduling classes. This is not a complete description of the graduation requirements for a BS Comp Eng degree. See the Missouri S&T undergraduate catalog and the Comp Eng undergraduate handbook for a complete description of graduation requirements.

Course Prerequisites and Elective Requirements

GENERAL EDUCATION ELECTIVE

- Must fulfill the Missouri S&T general education requirements applicable to the student's catalog year. These requirements are specified in the current catalog.

MATH 1215

- MATH 1214 or 1210/1211

MATH 2222

- MATH 1215

MATH 3304

- MATH 2222

MATH ELECTIVE

- Take one of the following courses: MATH 3108, 3109, 5302, 5603, 5105, 5106, 5107, 5108, 4209, 4211, 5215, 5222, 5325, 4530, 5737, 5351, 5154, 4096, 5483, 5585, or STAT 5644, 5346, 5353.

STAT 3117

- STAT 3117 or 3115 or 5643

COMP SCI 1570/1580

- COMP SCI 1500

COMP SCI 1200

- COMP SCI 1570/1580

COMP SCI 1575

- COMP SCI 1570/1580

COMP SCI 3800 OR 2500

- COMP ENG 3150
- COMP SCI 1575

PHYSICS 1135

- MATH 1214 or 1210/1211

PHYSICS 2135

- PHYSICS 1135
- MATH 1215

ELEC ENG 2100/2101

- MATH 1215

ELEC ENG 2120

- ELEC ENG 2100/2101
- PHYSICS 2135

ELEC ENG 2200/2201

- ELEC ENG 2100/2101
- PHYSICS 2135

ELEC ENG 3410

- ELEC ENG 2120

ENG SCI ELECTIVE

- Take one of: MECH ENG 2340, MECH ENG 2519, MECH ENG 2527, PHYSICS 2311, PHYSICS 2401, CHEM 2210, BIO SCI 2213, BIO SCI 2223, PHYSICS 2305, PHYSICS 4311, CER ENG 4240, NUC ENG 3205, or NUC ENG 3103. The following pair of courses can be substituted: CIV ENG 2200 and MECH ENG 2350.

ENGLISH 3560 OR ENGLISH 1160

- ENGLISH 1120

PRO DEV ELECTIVE

- Students must take one of the following courses: BUS 5980, ECON 4430, ECON 5337, ENG MGT 2310, ENG MGT 3320, ENG MGT 4110, ENG MGT 5514, PHIL 3225

COMP ENG 3150

- COMP ENG 2210/2211
- COMP SCI 1500

COMP ENG 3110

- COMP ENG 2210

COMP ENG 5410

- COMP ENG 3150
- STAT 3117 or 3115 or 5643

COMP ENG ELECTIVES A, B

Comp Eng Senior Electives A and B, respectively, must be selected from 4xxx or 5xxx courses in COMP ENG, except COMP ENG 4000, 4099, 4096, 4097, 5000, and 5099. The two courses selected for electives A and B, respectively, should be from two different Comp Eng emphasis areas. The emphasis areas, with course number options, are as follows:

- Electronic Computer System Design: ELEC ENG 36xx, ELEC ENG 56xx, COMP ENG 51xx
- Computational Intelligence: COMP ENG 53xx
- Computer Chips and Semiconductor Engineering: ELEC ENG 5230, ELEC ENG 3100, COMP ENG 32xx/42xx/52xx, COMP ENG 51xx
- Networks and Cyber Physical Systems: COMP ENG 44xx, COMP ENG 54xx, ELEC ENG 5160, ELEC ENG 53xx, except COMP ENG 5410.

COMP ENG 4001/5001 courses may be used in one of emphasis areas but will require a substitution form.

COMP ENG ELECTIVE D, E

Comp Eng Senior Electives D and E must be selected from an approved list that contains most 3xxx, 4xxx and 5xxx courses in science, mathematics, and engineering except required courses in COMP ENG, ELEC ENG, and COMP SCI and except COMP SCI 3610 and COMP SCI 5600. COMP ENG Electives D and E cannot include more than three hours of COMP ENG/ELEC ENG 3002, COMP ENG/ELEC ENG/COMP SCI 4000 or 4099.

COMP ENG ELECTIVE C

Comp Eng Senior Elective C must be selected from 3xxx, 4xxx or 5xxx courses in COMP ENG, ELEC ENG, or COMP SCI, except COMP ENG/ELEC ENG/COMP SCI 3000, 4000, 4096, 4097, 4099, 5000, and 5099 and COMP SCI 4010, 3610 and 5600.

COMP ENG SR PROJ I 4096

- COMP ENG 2210
- ENGLISH 3560 or 1160
- COMP ENG 3150
- COMP ENG 3110
- ELEC ENG 2200

COMP ENG SR PROJ II 4097

- COMP ENG 4096
- STAT 3117 or 3115 or 5643
- SPEECH 1185