

East Central College — Missouri S&T

Computer Science BS

Transfer Guide Effective as of Fall 2026

Students are not required to complete all courses on this guide before transferring to Missouri S&T.

East Central College

Missouri S&T

Communication Skills

Take all courses.

ENG 101	English Composition I	3	ENGLISH 1120	Exposition and Argumentation	3
ENG 102 or ENG 104	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing <small>Applies to degree as Gen Ed communication requirement.</small>	3
Total Hours					6

Computer Science, Mathematics, and Science

Take all courses.

EGR 251 or EGR 221,222	Data Structures (3) or C++ Program Engineers and Lab (4) <small>*EGR 251 is preferred; EGR 221, 222 will be accepted in lieu of EGR 251 if necessary.</small>	3	COMP SCI 1500* or COMP SCI 1971,1981*	Computational Problem Solving* (preferred) or Intro to Programming Methodology and Lab* <small>*COMP SCI 1500 is preferred; COMP SCI 1971,1981 will be accepted in lieu of COMP SCI 1500 if necessary. A maximum of 3 hours applies to the computer science requirement. Any additional credit hours apply to degree totals as general elective credit.</small>	3
MTH 190	Analytic Geometry & Calculus I	5	MATH 1214	Calculus I	4
MTH 210	Analytic Geometry & Calculus II	5	MATH 1215	Calculus II	4
MTH 241	Linear Algebra	3	MATH 3108	Linear Algebra	3
MTH 242	Engineering Statistics	3	STAT 3115	Engineering Statistics <small>Will be substituted for the statistics requirement.</small>	3
Total Hours					17

Engineering/Science Electives

Select up to 6 hours in engineering/science electives not already used to satisfy another degree requirement. See Approved Science and Engineering Electives at <https://cs.mst.edu/undergraduate-degree/>

MTH 220 or MTH 245	Analytical Geometry & Calculus III (5) or Differential Equations (3) <small>Or other math 2000-level or higher or Any statistics 4000-level or higher</small>	3	MATH 2222 or MATH 3304	Calculus III (4) or Elementary Differential Equations (3) <small>Or other math 2000-level or higher or Any statistics 4000-level or higher Credit hours apply to degree totals as indicated for each course.</small>	3
EGR 203 or EGR 214 or EGR 231	Engineering Mechanics-Statics or Engineering Mechanics-Dynamics or Intro to Circuit Theory <small>Or other course with the equivalent of a Missouri S&T engineering designation.</small>	3	CIV ENG 2200 or MECH ENG 2350 or ELEC ENG 2800	Statics or Engineering Mechanics-Dynamics (2) or Electrical Circuits <small>Or other course with the equivalent of a Missouri S&T engineering designation.</small>	3
PHY 111, 112 or PHY 211, 212	College Physics I and Lab or General Physics I and Lab	5	PHYSICS 1135 or PHYSICS 1145	Engineering Physics I or College Physics I <small>Only one of these courses may be applied to the engineering/science elective requirement.</small>	4
PHY 121, 122 or PHY 221, 222	College Physics II and Lab or General Physics II and Lab	5	PHYSICS 2135 or PHYSICS 2145	Engineering Physics II or College Physics II <small>Only one of these courses may be applied to the engineering/science elective requirement.</small>	4
Physics	Any physics excluding the equivalent of S&T PHYS 2111, 2119, 2135, and 2145, except as noted above.	3	Physics	Any physics excluding the equivalent of S&T PHYS 2111, 2119, 2135, and 2145, except as noted above.	3
Science	Any biology, chemistry, geology, or environmental science.	3	Science	Any biology, chemistry, geology, or environmental science.	3
<small>*A maximum of 6 hours applies to engineering/science elective requirements. Any additional credit hours apply to degree totals as general elective credit.</small>					
Total Hours					6

Natural Sciences General Education Requirements

Select 7 hours to include at least two specific disciplines and to include at least 1 hour of lab.

CHM 111 or BIO 111 or BIO 122	General Chemistry I and Lab (5) or General Biology and Lab (5) or Principles of Biology II and Lab (5) <small>Lecture/lab pair must total a minimum of 4 hours.</small>	4	CHEM 1310, 1319 or BIO SCI 1113, 1219 or BIO SCI 1223, 1229	General Chemistry I (4) and Lab (1) or General Biology (3) and Lab (1) or Biodiversity (3) and Lab (1) <small>Lecture/lab pair must total a minimum of 4 hours.</small>	4
Natural Science	Any Biology (1113 or higher), Chemistry (1301 or higher), Geology (1110 or higher) or Physics (1111 or higher)	3	Natural Science	Any Biology (1113 or higher), Chemistry (1301 or higher), Geology (1110 or higher) or Physics (1111 or higher)	3
Total Hours					7

Humanities, Arts, and Social Sciences General Education Requirements

From the options listed in each group below, select 12 hours to include
6 hours Humanities and Fine Arts from at least two specific disciplines and
3 hours Behavioral and Social Sciences.

***At least one course must be selected from HISTORY 1200, 1300, 1310, or POL SCI 1200 to satisfy the State of Missouri government requirement.**

Humanities and Fine Arts

Select 6 hours from at least two specific disciplines.

ENG 210 or ENG 211 or ENG 221 or ENG 222 or ENG 124 or HST 101* or HST 102* or ART 101 or MUS 101 or THE 101 or Literature	Survey British Lit: Beginnings - 1784 or Survey British Lit: Romantic-Present or Survey American Lit: Beginnings - 1865 or Survey American Lit: 1865-Present or World Literature I or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Theatre Appreciation or Any literature with prerequisite of no more than English Composition I. <small>*Satisfies the State of Missouri government requirement.</small>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or ENGLISH 1231 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150 or THEATRE 1190 or Literature	British Literature I: The Beginnings to 1800 or British Literature II: 1800 to Present American Literature: 1600 to 1865 or American Literature: 1865 to Present or World Literature I: Beginnings to the Renaissance or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation or Theatre via Video or Any literature with prerequisite of no more than ENGLISH 1120. <small>*Satisfies the State of Missouri government requirement.</small>	6
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Behavioral and Social Sciences

Select 3 hours.

CIV 201 or CIV 202* or GRY 101 or PSC 102* or PSY 101 or ECO 102 or ECO 101 or Foreign Language	Western Civilization I or Western Civilization II* or World Geography or US Government I: National and State* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <small>*Satisfies the State of Missouri government requirement.</small>	3
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Humanities, Arts, and Social Sciences

SPMS 1185 is required.

COM 110	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total HASS Hours					12

Additional Degree Requirements

Select additional courses to total up to the maximum transfer credit hours shown below.

COL 101	Falcon Seminar	1	FR ENG 1100	Study and Careers in Engineering and Computing	1
Electives	Maximum Free Electives	7	Electives	Maximum Free Electives	7

Maximum credit hours to be transferred to Missouri S&T degree requirements.

68

Missouri S&T residency requirements: The last 60 hours of any Missouri S&T degree must be completed at Missouri S&T.
Students must receive special permission from Missouri S&T to apply more than the maximum credit hours listed above toward the Missouri S&T degree.
Students are not required to complete all courses on this guide before transferring to Missouri S&T.