

St. Charles Community College — Missouri S&T

Computer Science BS

Transfer Guide Effective as of Fall 2025

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

St. Charles Community 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 115	English Composition II or Technical Writing	3	ENGLISH 1160 or ENGLISH 3560	Writing and Research or Technical Writing	3
Total Hours					6

Computer Science, Mathematics, and Science

Take all courses.

CPT 135 or CPT 185 or CPT 189	Computer Science I with Python (4) or Programming in C Sharp (3) or Java Programming (3)	3	COMP SCI 1500	Computational Problem Solving	3
CPT 182	Beginning Programming in C++	3	COMP SCI 1570	Intro to Programming	3
CPT 281	Intro to Data Structures with C++	3	COMP SCI 1575	Data Structures	3
MAT 180	Calculus and Analytic Geometry I	5	MATH 1214	Calculus I	4
MAT 230	Calculus and Analytic Geometry II	5	MATH 1215	Calculus II	4
MAT 242	Introductory Linear Algebra	3	MATH 3108	Linear Algebra	3
Total Hours					20

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/>

MAT 240 or MAT 250	Calculus and Analytic Geometry III or Differential Equations	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 170 or EGR 210 or EGR 220	Engineering Mechanics-Statics or Engineering Mechanics-Dynamics or Electrical Circuits	3	CIV ENG 2200 or MECH ENG 2350 or ELEC ENG 2100	Statics or Engineering Mechanics-Dynamics (2) or Circuits I <small>Or other course with the equivalent of a Missouri S&T engineering designation.</small>	3
PHY 150,153 or PHY 250	General Physics and Lab or Engineering Physics I	5	PHYSICS 1145 or PHYSICS 1135	College Physics I or Engineering Physics I <small>Only one of these courses may be applied to the engineering/science elective requirement.</small>	4
PHY 151,154 or PHY 251	General Physics II and Lab or Engineering Physics II	5	PHYSICS 2145 or PHYSICS 2135	College Physics II or Engineering 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 115 or BIO 105, 106 or BIO 150 or BIO 151 or PHY 130, 131	General Chemistry I (5) Essentials of Biology (3) and Lab (1) or General Biology: Cells to Organisms (5) General Biology: Organisms to Environment or Astronomy (3) and Lab (1)	5	CHEM 1310, 1319 or BIO SCI 1113, 1219 or BIO SCI 1213, 1219 or BIO SCI 1223, 1229 or PHYSICS 1505, 1509	General Chemistry I (4) and Lab (1) or General Biology (3) and Lab (1) or Principles of Biology and Lab Biodiversity (3) and Lab (1) or Introductory Astronomy (3) and Lab (1) <small>Satisfies the gen ed natural science lecture/lab requirement. 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 15 hours to include
6 hours Humanities and Fine Arts from at least two specific disciplines and
6 hours Behavioral and Social Sciences from at least two specific disciplines.

*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.

LIT 250 or LIT 260 or LIT 210 or LIT 220 or LIT 272 or HIS 101* or HIS 102* or ART 1001 or MUS 111 or THE 122	English Literature Before 1800 or English Literature After 1800 or American Literature From Beginnings-1865 or American Literature From 1865-Present or World Literature-Ancient World thru Renaissance or US History to 1877* or US History Since 1877* or Art Appreciation or Music Appreciation or Intro to the Theatre <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	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 Understanding and Appreciation or Theatre via Video <small>*Satisfies the State of Missouri government requirement.</small>	6
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Behavioral and Social Sciences

Select 6 hours from at least two specific disciplines, to include an upper-level ethics course.

BUS 105	Business Ethics or other upper-level ethics	3	PHILOS 3235	Business Ethics <small>Or other upper-level ethics elective. At least one upper-level ethics course is required.</small>	3
HIS 145 or HIS 146* or GEO 110 or POL 101* or PSY 101 or ECO 120 or ECO 110 or Foreign Language	Western Civilizations Ancient and Medieval or Western Civilizations Modern European* or Geography for Educators or American Government* or Intro to 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

Humanities, Arts, and Social Sciences

COM 106	Public Speaking	3	SPMS 1185	Principles of Speech	3
Total Hours					15

Additional Degree Requirements

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

EGR 100	Intro to Engineering	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.

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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.
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