

# East Central College — Missouri S&T

## Computer Science BS

Transfer Guide Effective as of Fall 2024

### 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	English Composition II or	3	ENGLISH 1160 or	Writing and Research or	
ENG 104	Technical Writing		ENGLISH 1600	Intro to Technical Communication	3
COM 110	Public Speaking	3	SPMS 1185	Principles of Speech	3
<b>Total Hours</b>					<b>9</b>

#### 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. 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	CS 1500* or CS 1971,1981*	Computational Problem Solving* (preferred) or Intro to Programming Methodology and Lab*	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	3
PHY 211, 212	General Physics I and Lab	5	PHYSICS 1135	Engineering Physics I	4
PHY 221, 222	General Physics II and Lab	5	PHYSICS 2135	Engineering Physics II	4
CHM 111 or	General Chemistry I and Lab (5) or		CHEM 1310, 1319 or	General Chemistry I (4) and Lab (1) or	
BIO 111 or	General Biology and Lab (5) or		BIO SCI 1113, 1219 or	General Biology (3) and Lab (1) or	
BIO 122 or	Principles of Biology II and Lab (5) or		BIO SCI 1223, 1229 or	Biodiversity (3) and Lab (1) or	
BIO 114	General Zoology (4) <small>Satisfies the 5-hour science lecture/lab requirement. Credit hours apply to degree totals as indicated for each course.</small>	5	BIO SCI 2353, 2359	Zoology (3) and Lab (1) <small>Satisfies the 5-hour science lecture/lab requirement. Credit hours apply to degree totals as indicated for each course.</small>	5
<b>Total Hours</b>					<b>34</b>

#### 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. Satisfies the 3-hour science lecture/lab requirement. Credit hours apply to degree totals as indicated for each course.</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. Satisfies the 3-hour science lecture/lab requirement. 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&amp;T engineering designation.</small>	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&amp;T engineering designation.</small>	3
Science	Any biology, chemistry, geology, or environmental science.	3	Science	Any biology, chemistry, geology, or environmental science.	3
Physics	Any physics excluding the equivalent of S&T PHYS 2111, 2119, 2135, and 2145.	3	Physics	Any physics excluding the equivalent of S&T PHYS 2111, 2119, 2135, and 2145.	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>					
<b>Total Hours</b>					<b>6</b>

#### Social Sciences

Select 9 credit hours to include one course to satisfy state requirement.

CIV 202 or HST 101 or HST 102 or PSC 102	European Civilization II or US History to 1877 or US History Since 1877or US Government I: National and State <small>At least one of these courses is required to satisfy a State of Missouri requirement.</small>	3	HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200	Modern Western Civilization or American History to 1877 or American History Since 1877 or American Government <small>At least one of these courses is required to satisfy state requirement.</small>	3
ECO 102 or ECO 101	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics or upper-level economics	3
PSY 101	General Psychology	3	PSYCH 1101	General Psychology or upper-level psychology	3
ACC 101 or BUS 234	Fundamentals of Accounting or Legal Environment of Business <small>or other approved business course; see Social Sciences Approved Electives at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a></small>	3	BUS 1210 or BUS 2910	Financial Accounting or Business Law <small>or other approved business course; see Social Sciences Approved Electives at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a></small>	3
Social Science	Other economics, history, political science, psychology, business elective from the Social Sciences Approved Electives at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a>	3	Social Science	Other economics, history, political science, psychology, business elective from the Social Sciences Approved Electives at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a>	3
<b>Total Hours</b>					<b>9</b>

#### Humanities and Ethics

Select one humanities and one upper-level ethics course.

PHL 101	Intro to Philosophy	3	PHILOS 1105	Self and World: Intro to Philosophy	3
ART 101	Art Appreciation	3	ART 1185	Study of Film	3
MUS 101	Music Appreciation	3	MUS 1150	Music Understanding and Appreciation	3
THE 101	Theatre Appreciation	3	THEATRE 1190	Theatre via Video	3
ENG 210 or ENG 221 or ENG 124 or ENG 214 or ENG 215	Survey British Lit: Beginnings - 1784 or Survey American Lit: Beginnings - 1865 or World Literature I or Women's Literature or African-American Literature	3	ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242 or ENGLISH 2245	British Literature I: The Beginnings to 1800 or American Literature: 1600 to 1865 or World Literature I or Literature by Women or African American Literature	3
Foreign Language	Any foreign language	3	Foreign Language	Any foreign language	3
Humanities	Other humanities elective from the list of approved courses at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a>	3	Humanities	Other humanities elective from the list of approved courses at <a href="https://cs.mst.edu/undergraduate-degree/">https://cs.mst.edu/undergraduate-degree/</a>	3
<b>Total Hours</b>					<b>6</b>

#### Additional Degree Requirements

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

COL 101	Foundation Seminar	1	FR ENG 1100	Study and Careers in Engineering and Computing	1
Electives	Maximum Free Electives	8	Electives	Maximum Free Electives	8

#### 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.