Effective as of Fall 2023

| East Central College |  |  | Missouri S\&T |  |  |
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| Communication Skills and (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 1600 | Writing and Research or Intro to Technical Communication | 3 |
| COM 110 | Public Speaking | 3 | SPMS 1185 | Principles of Speech | 3 |
|  | Total Hours | 9 |  | Total Hours | 9 |
| Computer Science, Mathematics, and Science (Take all courses) |  |  |  |  |  |
| $\begin{aligned} & \text { EGR } 251 \text { or } \\ & \text { EGR } 221,222 \end{aligned}$ | Data Structures or C++ Program Engineers and Lab | 3-4 | $\begin{aligned} & \text { CS 1500* or } \\ & \text { CS 1971,1981* } \end{aligned}$ | Computational Problem Solving* (preferred) or Intro to Programming Methodology and Lab* *CS 1500 is preferred; CS 1971,1981 will be accepted in lieu of CS 1500 if necessary. | 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 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 |
| $\begin{aligned} & \text { CHM } 111 \text { or } \\ & \text { BIO } 111 \text { or } \end{aligned}$ | General Chemistry I and Lab (5) or Principles of Biology I and Lab (5) or Principles of Biology II and Lab (5) or General Zoology (4) | 4-5 | CHEM 1310, 1319 or BIO SCI 1113, 1219 or BIO SCI 1223, 1229or BIO SCI 2353, 2359 | General Chemistry I (4) and Lab (1) or General Biology (3) and Lab (1) or Biodiversity (3) and Lab (1) or Zoology (3) and Lab (1) <br> Satisfies science lecture/lab requirement. | 4-5 |
|  | Total Hours | 30 |  | Total Hours | 26 |
| Engineering/Science Electives ectives not already used to satisfy another degree requirement. See Approved Electives at https://cs.mst.edu/undergraduate-degree/ |  |  |  |  |  |
| MTH 220 or MTH 245 | Analytical Geometry \& Calculus III (5) or Differential Equations (3) Or other math 2000 -level or higher or Any statistics $4000-$ level or higher | 3-5 | MATH 2222 or MATH 3304 | Calculus III or Elementary Differential Equations Or other math 2000-level or higher or Any statistics 4000 -level or higher | 4 |
| EGR 203 or EGR 214 or EGR 231 | Engineering Mechanics-Statics or Engineering Mechanics-Dynamics or Intro to Circuit Theory Or other course with the equivalent of a Missouri S\&T engineering designation. | 3 | CIV ENG 2200 or MECH ENG 2350 or ELEC ENG 2100 | Statics or <br> Engineering Mechanics-Dynamics (2) or Circuits I <br> Or other course with the equivalent of a Missouri S\&T engineering designation. | 3 |
|  | Any biology, chemistry, geology, or environmental science. | 3 |  | Any biology, chemistry, geology, or environmental science. | 3 |
|  | PHYS 2111, 2119, 2135, and 2145. <br> Total Hours | 3 |  | Any physics excluding the equivalent of S\&T PHYS 2111, 2119, 2135, and 2145. | 3 |
|  |  | 6 |  | Total Hours | 6 |
| Social Sciences (Select 9 credit hours to include one course to satisfy state requirement) |  |  |  |  |  |
| HST 101 or HST 102 or CIV 202 or PSC 102 | US History to 1877 or <br> US History Since 1877 or European Civilization II or US Government I: National and State (At least one of these courses is required to satisfy state requirement) | 3 | HISTORY 1200 or HISTORY 1300 or HISTORY 1310 or POL SCI 1200 | Modern Western Civilization or <br> American History to 1877 or <br> American History Since 1877 or <br> American Government <br> (At least one of these courses is required to satisfy state requirement) | 3 |
| $\begin{aligned} & \text { ECO } 102 \text { or } \\ & \text { ECO } 101 \\ & \text { PSY } 101 \\ & \text { ACC } 101 \text { or } \\ & \text { BUS } 234 \end{aligned}$ | Principles of Microeconomics or Principles of Macroeconomics General Psychology Financial Accounting I or Legal Environment of Business (or other approved business course; see Social Sciences Approved Electives at https://cs.mst.edu/undergraduate-degree) | 3 | ECON 1100 or ECON 1200 | Principles of Microeconomics or Principles of Macroeconomics (or upper-level economics) | 3 |
|  |  | 33 | PSYCH 1101 | General Psychology (or upper-level psychology) | 3 |
|  |  |  | $\begin{aligned} & \text { BUS } 1210 \text { or } \\ & \text { BUS } 2910 \end{aligned}$ | Financial Accounting or |  |
|  |  |  |  | Business Law <br> (or other approved business course; see Social Sciences Approved Electives at https://cs.mst.edu/undergraduate-degree/) | 3 |
|  | Other economics, history, political science, psychology, business elective from the Social Sciences Approved Electives at https://cs.mst.edu/undergraduate-degree/ | 3 |  | Other economics, history, political science, psychology, business elective from the Social Sciences Approved Electives at https://cs.mst.edu/undergraduate-degree/ | 3 |
|  | Total Hours | 9 Humanities and Ethics |  | Total Hours | 9 |
| Humanities and Ethics(Select one humanities and one ethics course) |  |  |  |  |  |
| PHL 203 | Ethics | 3 | PHILOS 1130 | How Should I Live? An Intro to Ethics Computer Science department will substitute for required ethics elective. | 3 |
| 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 <br> ENG 221 or <br> ENG 124 or <br> ENG 214 or <br> ENG 215 | Survey British Lit: Beginnings - 1784 or <br> Survey American Lit: Beginnings - 1865 or <br> World Literature I or <br> Women's Literature or <br> African-American Literature <br> (or other literature elective) | 3 | ENGLISH 1211 or ENGLISH 1221 or ENGLISH 1231 or ENGLISH 2242 or ENGLISH 2245 | British Literature I: The Beginnings to 1800 or <br> American Literature: 1600 to 1865 or <br> World Literature I or <br> Literature by Women or <br> African American Literature | 3 |
| Foreign Language | Any foreign language | 3 | Foreign Language | Any foreign language | 3 |
|  | Other humanities elective from the list of approved courses. | 3 |  | Other humanities elective from the list of approved courses. | 3 |
|  | Total Hours | 6 |  | Total Hours | 6 |
| Additional Degree Requirements Select additional courses to total up to the maximum transfer credit hours shown below. |  |  |  |  |  |
| COL 101 | Foundation Seminar Maximum Free Electives | 1 | FR ENG 1100 | Study and Careers in Eng̣ineering and Computing Maximum Free Electives | 1 |
|  |  | 8 |  |  | 8 |
|  | Maximum credit hours to be transferred to Missouri S\&T degree requirements. <br> 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. |  |  |  | 68 |
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