

Illinois Central College — Missouri S&T

General Engineering

Transfer Guide Effective as of Fall 2025

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

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

Group 1 - Core Requirements: All Majors Take All Courses

Engineering students take all Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice. Math prerequisites: While they are not part of Missouri S&T engineering degree requirements, algebra and trigonometry skills are critical to success in calculus. To prepare for entry into calculus, students should follow math placement testing and advising recommendations at their college.

Illinois Central College			Semester	Missouri S&T		
MATH 222	Calculus and Analytical Geometry I	5		MATH 1214	Calculus I Grade of C or better is required.	4
MATH 223	Calculus and Analytical Geometry II	4		MATH 1215	Calculus II Grade of C or better is required.	4
MATH 224	Calculus and Analytical Geometry III	4		MATH 2222	Calculus III Grade of C or better is required.	4
MATH 250	Differential Equations	3		MATH 3304	Elementary Differential Equations	3
PHYS 211 and PHYS 212 and PHYS 213*	Engineering Physics: Mechanics (4) and Engineering Physics: Electricity/Magnetism (4) and Engineering Physics: Thermodynamics (2) All three courses are required to receive full transfer credit.	10		PHYSICS 1135 and PHYSICS 2135	Engineering Physics I and Engineering Physics II Grade of C or better is required. *The combination of PHYS 211, 212, and 213 is equivalent to the combination of PHYSICS 1135 and 2135.	8
ENGL 110	Composition I	3		ENGLISH 1120	Exposition and Argumentation	3
		Total Hours	29			Total Hours 26

Group 2 - Major Requirements: Take All Courses for Major of Choice

Engineering students take all Group 1 - Core Requirements (above) and Group 2 - Major Requirements for chosen major from list below. See course requirements on following pages.

Aerospace Engineering
Architectural Engineering
Biomedical Engineering/Biomanufacturing or Biomaterials
Ceramic Engineering
Chemical Engineering and Biochemistry Emphasis
Civil Engineering
Computer Engineering
Electrical Engineering

Engineering Management
Environmental Engineering
Geological Engineering
Mechanical Engineering
Metallurgical Engineering
Mining Engineering
Nuclear Engineering
Petroleum Engineering

Engineering Major Requirements are detailed on the following pages.

Free Electives: Some programs allow Free Electives as indicated within each major. Free Electives should be selected in consultation with your advisor and may not include remedial/deficiency courses, algebra, trigonometry, pre-calculus, or extra credits in required courses.

This transfer guide is published by Missouri University of Science and Technology and is in effect as of Fall 2025.
Further information or updates are available from Missouri S&T Transfer Admissions at transfer.mst.edu, transfer@mst.edu, or 800-522-0938.

Aerospace Engineering Group 2 Major Requirements

<u>Illinois Central College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	3
CHEM 130	General Chemistry	4	CHEM 1310*, 1319	5
ENGR 230 or CMPSC 125	Programming Engineering Applications or Computer Science I: Programming in C++	3	COMP SCI 1971, 1981	3
ENGR 240	Engineering Circuit Analysis	3	ELEC ENG 2800	3
ENGR 251	Statics	3	CIV ENG 2200	3
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	3
MATH 230	Linear Algebra	3	MATH 3108	3
Ethics	Ethics Elective Engineering, business, bio, social or other ethics approved by advisor.	3	Ethics	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	6
Humanities, Arts, and Social Sciences Select 3 hours.				
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	0
Group 2 Major Requirements		44	Group 2 Major Requirements	45
Group 1 Core Requirements		29	Group 1 Core Requirements	26
Total Hours		73	Total Hours*	71
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Aerospace Engineering degree.				

Architectural Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 130	General Chemistry	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 252	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
ARCTK 114	Surveying	2	CIV ENG 2401	Fundamentals of Surveying	3
EASC 116	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
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 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include HISTORY 1200.					
HIST 118*	Modern Western Civilization* *Satisfies the State of Missouri government requirement.	3	HISTORY 1200*	Modern Western Civilization* *Satisfies the State of Missouri Government requirement.	3
PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		38	Group 2 Major Requirements		38
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		67	Total Hours*		64
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Architectural Engineering degree.					

Biomedical Engineering-Biomanufacturing Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T		
COMM 110	Communication: Process and Practice	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
CHEM 132	General Chemistry	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3	
CHEM 220	Organic Chemistry	5	CHEM 2210, 2219	Organic Chemistry I and Lab	4	
CHEM 230 or BIOL 111 or BIOL 150	Organic Chemistry (4) or Concepts in Biology (4) or Genetics (3)	4	CHEM 2220, 2229 or BIO SCI 1113, 1219 or BIO SCI 2223	Organic Chemistry II and Lab or General Biology and Lab or General Genetics Applies to degree as Track Elective.	4	
BIOL 140	Human Anatomy and Physiology	4	BIO SCI 3333, 3359	Anatomy and Physiology I and Lab	4	
CMPSC 212 or CMPSC 235 or ENGR 230* or CMPSC 125*	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for CS 1500.	3	
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 9 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences Select 3 hours.						
HIST 117 or HIST 118* or GEOG 116 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	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 *Satisfies the State of Missouri government requirement.	3	
No free electives applied to the degree.		0	Maximum Free Electives		0	
Group 2 Major Requirements		36	Group 2 Major Requirements		35	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		65			Total Hours*	61
*S&T advisor permission is required to transfer more than 69 credit hours toward the degree.						

Biomedical Engineering-Biomaterials Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T	
COMM 110	Communication: Process and Practice	3	SP&MS 1185	Principles of Speech <i>Applies to degree as Gen Ed Communication requirement.</i>	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 132	General Chemistry	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis (2) <i>*CHEM 1510 is not a degree requirement, transfers as general elective credit.</i>	3
CHEM 220	Organic Chemistry	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* <i>*CHEM 2219 Lab applies to the degree as a Track Elective (non-engineering).</i>	4
CHEM 230	Organic Chemistry	4	CHEM 2220, 2229*	Organic Chemistry II and Lab* <i>CHEM 2229 Lab applies to the degree as a Track Elective (non-engineering).</i>	4
BIOL 111	Concepts in Biology	4	BIO SCI 1113*, 1219*	General Biology* and Lab* <i>*Applies to degree as Track Elective (Non-engineering).</i>	4
BIOL 140	Human Anatomy and Physiology	4	BIO SCI 3333, 3359	Human Anatomy and Physiology I and Lab	4
CMPSC 212 or CMPSC 235 or ENGR 230* or CMPSC 125*	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971, 1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) <i>*Will be substituted for CS 1500.</i>	3
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 240	Engineering Circuit Analysis	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) <i>*A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100. Applies to the degree as a Track Elective (Engineering).</i>	4
Humanities, Arts, and Social Sciences General Education Requirements From the options listed in each group below, select 9 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation <i>*Satisfies the State of Missouri government requirement.</i>	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation <i>*Satisfies the State of Missouri government requirement.</i>	6
Behavioral and Social Sciences Select 3 hours.					
HIST 117 or HIST 118* or GEOG 116 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language <i>*Satisfies the State of Missouri government requirement.</i>	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 <i>*Satisfies the State of Missouri government requirement.</i>	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0
Group 2 Major Requirements		47	Group 2 Major Requirements		46
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		76			Total Hours*
			<i>*S&T advisor permission is required to transfer more than 69 credits toward the S&T Biomedical Engineering degree.</i>		72

Ceramic Engineering Group 2 Major Requirements

<u>Illinois Central College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
ENGR 251	Statics	3	CIV ENG 2200 Engineering Mechanics-Statics	3
ENGR 253	Mechanics of Materials	3	CIV ENG 2210 Mechanics of Materials	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319 General Chemistry I and Lab	5
CHEM 132	General Chemistry	4	CHEM 1320, 1510* General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHEM 220	Organic Chemistry	5	CHEM 2210, 2219* Organic Chemistry I (3) and Lab* (1) CHEM 2210 satisfies the advanced chemistry elective requirement. *CHEM 2219 is not an S&T degree requirement, transfers as general elective credit.	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	6
Humanities, Arts, and Social Sciences Select 3 hours.				
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	0
Group 2 Major Requirements		41	Group 2 Major Requirements	39
Group 1 Core Requirements		29	Group 1 Core Requirements	26
Total Hours		70	Total Hours*	65

*S&T advisor permission is required to transfer more than 68 credits toward the S&T Ceramic Engineering degree.

Chemical Engineering or Chemical Engineering - Biochemical Engineering Emphasis Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4
COMM 110	Communication: Process and Practice	3	SP&MS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CHEM 132	General Chemistry	4	CHEM 1320, 1510*	General Chemistry II (3) and Qualitative Analysis* (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.	3
CHEM 220	Organic Chemistry	5	CHEM 2210, 2219*	Organic Chemistry I and Lab* *CHEM 2210 is a degree requirement. CHEM 2219 applies to the degree as 1 of 9 required science elective credits See note below .	4
CHEM 230 or BIOL 210	Organic Chemistry or Microbiology	4	CHEM 2220 or BIO SCI 3313	Organic Chemistry II (3) or Microbiology and Lab (5) Applies to the degree as required science elective credits. Select up to 9 hours from these options or CHEM 2219 Organic Chemistry Lab.	8
CMPSC 212 or CMPSC 235 or ENGR 230* or CMPSC 125*	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* (C++) *Will be substituted for CS 1500.	3
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 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		39	Group 2 Major Requirements		42
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		68			Total Hours*
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Chemical Engineering degree.					

Civil Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T			
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
EASC 116	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3	
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENGR 252	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3	
ARCTK 114	Surveying	2	CIV ENG 2401	Fundamentals of Surveying	3	
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	
Humanities, Arts, and Social Sciences Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		41	Group 2 Major Requirements		41	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		70			Total Hours*	67
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Civil Engineering degree.						

Computer Engineering Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T	
COMM 110	Communication: Process and Practice	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319 COMP SCI 1200	General Chemistry I and Lab Discrete Math for Computer Science	5 3
CMPSC 212 or CMPSC 235 or ENGR 230* or CMPSC 125*	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971,1981*	Computational Problem Solving or Intro to Programming Methodology and Lab* *Will be substituted for COMP SCI 1500.	3
ENGR 251 and ENGR 252 or PHYS 214 or CHEM 220 or BIOL 150	Statics (3) or Dynamics (3) or Engineering Physics: Modern Physics (2) or Organic Chemistry (5) or Genetics (3)	3	CIV ENG 2200 or MECH ENG 2350 or PHYSICS 2311 or CHEM 2210 or BIO SCI 2223	Engineering Mechanics-Statics (3) or Engineering Mechanics-Dynamics (2) or Modern Physics I (3) Organic Chemistry I (3) or General Genetics (3) Satisfies a required engineering/science elective.	3
ENGR 240	Engineering Circuit Analysis	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MATH 230	Linear Algebra	3	MATH 3108	Linear Algebra	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
Humanities, Arts, and Social Sciences Select 3 hours.					
ENGL 111	Composition II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	3	Electives	Maximum Free Electives	3
	Group 2 Major Requirements	38		Group 2 Major Requirements	42
	Group 1 Core Requirements	29		Group 1 Core Requirements	26
	Total Hours	67		Total Hours*	68
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.					

*S&T advisor permission is required to transfer more than 68 credits toward the S&T Computer Engineering degree.

Electrical Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR ENG 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR ENG 1100 and MECH ENG 1720.	4
COMM 110	Communication: Process and Practice	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CMPSC 212 or CMPSC 235 or ENGR 230* or CMPSC 125*	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971,1981* or COMP SCI 1570, 1580*	Computational Problem Solving or Intro to Programming Methodology and Lab* or Intro to Programming (C++) and Lab* (4) *Will be substituted for COMP SCI 1500.	3
ENGR 251 and ENGR 252 BOTH of the courses above or ONE of the courses below. OR PHYS 214 or CHEM 220 or BIOL 150	Statics (3) and Dynamics (3) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Engineering Physics: Modern Physics (2) or Organic Chemistry (5) or Genetics (3)	3	CIV ENG 2200 and MECH ENG 2350 BOTH of the courses above or ONE of the courses below. OR PHYSICS 2311 or CHEM 2210 or BIO SCI 2213	Engineering Mechanics-Statics (3) and Engineering Mechanics-Dynamics (2) Both courses above combined or any one of the following courses will satisfy a required engineering science elective. OR Modern Physics I (3) Organic Chemistry I (3) or General Genetics (3)	3
ENGR 240	Engineering Circuit Analysis	4	ELEC ENG 2100*, 2101	Circuits I* (3) and Circuit Analysis Lab (1) *A passing grade on the Missouri S&T EE Advancement Exam I is required to receive credit for ELEC ENG 2100.	4
MATH 230	Linear Algebra	3	MATH 3108	Linear Algebra	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
Humanities, Arts, and Social Sciences Select 3 hours.					
ENGL 111	Composition II	3	ENGLISH 1160	Writing and Research	3
Electives	Maximum Free Electives	6	Electives	Maximum Free Electives	6
	Group 2 Major Requirements	45		Group 2 Major Requirements	46
	Group 1 Core Requirements	29		Group 1 Core Requirements	26
	Total Hours	74		Total Hours*	72
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.					

*S&T advisor permission is required to transfer more than 68 credits toward the S&T Electrical Engineering degree.

Engineering Management Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	
COMM 110	Communication: Process and Practice	3	SPMS 1185	Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5	
ENGR 230 or CMPSC 125	Programming Engineering Applications or Computer Science I: Programming in C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
ENGR 240	Engineering Circuit Analysis	4	ELEC ENG 2800	Electrical Circuits	3	
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENGR 252	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2	
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3	
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences						
Select 6 hours from at least two specific disciplines to include PSYCH 1101.						
PSY 110	Intro to Psychology	3	PSYCH 1101	General Psychology Required	3	
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or ECON 1100 or ECON 1200 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	
Humanities, Arts, and Social Sciences						
Select 3 hours.						
ENGL 111	Composition II	3	ENGLISH 1160	Writing and Research	3	
No free electives applied to the degree.		0	Electives	Maximum Free Electives	0	
Group 2 Major Requirements		42		Group 2 Major Requirements	41	
Group 1 Core Requirements		29		Group 1 Core Requirements	26	
Total Hours		71		Total Hours*	61	
*S&T advisor permission is required to transfer more than 61 credits toward the S&T Engineering Management degree.						

Environmental Engineering Group 2 Major Requirements

<u>Illinois Central College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
EASC 116	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	5
CHEM 132	General Chemistry	4	CHEM 1320, 1510*	3
BIOL 111	Concepts in Biology	4	BIO SCI 1113, 1219*	3
ENGR 251	Statics	3	CIV ENG 2200	3
ENGR 252	Dynamics	3	MECH ENG 2350	2
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	3
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 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines to include HISTORY 1200				
HIST 118*	Modern Western Civilization* *Satisfies the State of Missouri government requirement.	3	HISTORY 1200*	3
PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	3
No free electives applied to the degree.				
	0		Maximum Free Electives	0
	44		Group 2 Major Requirements	41
	29		Group 1 Core Requirements	26
Total Hours	73		Total Hours*	67
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Environmental Engineering degree.				

Geological Engineering Group 2 Major Requirements

<u>Illinois Central College</u>		<u>Semester</u>	<u>Missouri S&T</u>	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	4
CHEM 130	General Chemistry	4	CHEM 1310, 1319	5
CMPSC 212 or CMPSC 235 or ENGR 230 or CMPSC 125	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA or Programming Engineering Applications or CS I: Programming in C++	3	COMP SCI 1500 or COMP SCI 1971, 1981	3
EASC 116	Intro to Geology	4	GEO ENG 1150 (GEOLOGY 1110)	3
ENGR 251	Statics	3	CIV ENG 2200	3
ENGR 252	Dynamics	3	MECH ENG 2350	2
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	6
Humanities, Arts, and Social Sciences Select 3 hours.				
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	3
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	0
Group 2 Major Requirements		39	Group 2 Major Requirements	38
Group 1 Core Requirements		29	Group 1 Core Requirements	26
Total Hours		68	Total Hours*	64
*S&T advisor permission is required to transfer more than 65 credits toward the S&T Geological Engineering degree.				

Mechanical Engineering Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3	
CHEM 130	General Chemistry	4	CHEM 1310*, 1319	General Chemistry I and Lab *CHEM 1310 will be substituted for CHEM 1305.	5	
ENGR 230 or CMPSC 125	Programming Engineering Applications or Computer Science I: Programming in C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++)	3	
ENGR 240	Engineering Circuit Analysis	4	ELEC ENG 2800	Electrical Circuits	3	
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3	
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3	
MATH 230	Linear Algebra	3	MATH 3108	Linear Algebra I Satisfies the Advanced Math/Statistics elective requirement.	3	
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6	
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.						
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	
Humanities, Arts, and Social Sciences Select 3 hours.						
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives		0	
Group 2 Major Requirements		42	Group 2 Major Requirements		42	
Group 1 Core Requirements		29	Group 1 Core Requirements		26	
Total Hours		71			Total Hours*	
					68	
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mechanical Engineering degree.						

Metallurgical Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	3
ENGR 251	Statics	3	CIV ENG 2200	3
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	5
CHEM 132	General Chemistry	4	CHEM 1320, 1510*	3
CHEM 220 or ENGR 240 or PHYS 214	Organic Chemistry (5) or Engineering Circuit Analysis (4) or Engineering Physics: Modern Physics (2)	3	CHEM 2210 or EE 2800 or PHYSICS 2311	3
Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.				
Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.				
Engineering Mechanics-Statics				
Mechanics of Materials				
General Chemistry I and Lab				
General Chemistry II (3) and Qualitative Analysis (2) *CHEM 1510 is not a degree requirement, transfers as general elective credit.				
Organic Chemistry I or Electrical Circuits or Modern Physics I Not specifically required for the degree but will satisfy Out-of-Department Technical Elective Requirement.				
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.				
Behavioral and Social Sciences				
Select 6 hours from at least two specific disciplines.				
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	6
Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.				
Humanities, Arts, and Social Sciences				
Select 3 hours.				
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	3
Maximum Free Electives				
Group 2 Major Requirements				
Group 1 Core Requirements				
Total Hours 71				
Maximum Free Electives				
Group 2 Major Requirements				
Group 1 Core Requirements				
Total Hours* 68				
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Metallurgical Engineering degree.				

Mining Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T	
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	5
ENGR 251	Statics	3	CIV ENG 2200	3
ENGR 252	Dynamics	3	MECH ENG 2350	2
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	3
EASC 116	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	3
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 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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.				
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or ECON 1100 or ECON 1200 or Foreign Language	6
<i>No free electives applied to the degree.</i>		0	Maximum Free Electives	0
Group 2 Major Requirements		36	Group 2 Major Requirements	35
Group 1 Core Requirements		29	Group 1 Core Requirements	26
Total Hours		65	Total Hours*	61
*S&T advisor permission is required to transfer more than 68 credits toward the S&T Mining Engineering degree.				

Nuclear Engineering Group 2 Major Requirements

Illinois Central College		Semester	Missouri S&T		
ENGR 110 and ENGR 113*	Intro to Engineering (1) and Engineering Graphics (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4	FR ENG 1100 and MECH ENG 1720*	Study and Careers in Engineering (1) and Design with Computer Application (3) *The combination of ENGR 110 and 113 is equivalent to the combination of FR Eng 1100 and MECH ENG 1720.	4
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	Writing and Research or Principles of Speech Applies to degree as Gen Ed Communication requirement.	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5
ENGR 230 or CMPSC 125	Programming Engineering Applications or Computer Science I: Programming in C++	3	COMP SCI 1971, 1981	Intro to Programming Method and Lab (C++) *CSOMP SCI 1570, 1580 will be substituted for COMP SCI 1971, 1981..	3
MATH 230	Linear Algebra	3	MATH 3108	Linear Algebra	3
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
ENGR 240	Engineering Circuit Analysis	4	EE 2800	Electrical Circuits	3
PHYS 214	Engineering Physics: Modern Physics	3	PHYSICS 2311	Modern Physics	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences Select 6 hours from at least two specific disciplines.					
ECON 111 or ECON 110	Principles of Microeconomics or Principles of Macroeconomics	3	ECON 1100 or ECON 1200	Principles of Microeconomics or Principles of Macroeconomics	3
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 or POL SCI 1200* or PSYCH 1101 or Foreign Language	Early Western Civilization or Modern Western Civilization* or World Regional Geography or Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government*or General Psychology or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	3
Humanities, Arts, and Social Sciences Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
Maximum Free Electives		0	Maximum Free Electives		0
Group 2 Major Requirements		45	Group 2 Major Requirements		45
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		74	Total Hours*		71
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Nuclear Engineering degree.					

Petroleum Engineering Group 2 Major Requirements

Illinois Central College			Semester	Missouri S&T	
ENGL 111 or COMM 110	Composition II or Communication: Process and Practice	3	ENGLISH 1160 or SPMS 11850	Writing and Research or Principles of Speech	3
CHEM 130	General Chemistry	4	CHEM 1310, 1319	General Chemistry I and Lab	5
CMPSC 212 or CMPSC 235	CSII: Advanced programming in C++ or CS III: Advanced Programming in JAVA	3	COMP SCI 1500	Computational Problem Solving	3
EASC 116	Intro to Geology	4	GEOLOGY 1110 (GEO ENG 1150)	Physical and Environmental Geology	3
ENGR 251	Statics	3	CIV ENG 2200	Engineering Mechanics-Statics	3
ENGR 252	Dynamics	3	MECH ENG 2350	Engineering Mechanics-Dynamics	2
ENGR 253	Mechanics of Materials	3	CIV ENG 2210	Mechanics of Materials	3
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 212 or LIT 213 or LIT 215 or LIT 216 or HIST 201* or HIST 202* or ART 110 or MUS 150	British Literature: Beginnings to 1800 or English Literature 1800 to present or American Literature Beginning to 1865 or American Literature 1865 to Present or American History to 1877* or American History Since 1877* or Art Appreciation or Music Appreciation *Satisfies the State of Missouri government requirement.	6	ENGLISH 1211 or ENGLISH 1212 or ENGLISH 1221 or ENGLISH 1222 or HISTORY 1300* or HISTORY 1310* or ART 1180 or MUSIC 1150	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 American History to 1877* or American History Since 1877* or Art Appreciation or Music Understanding and Appreciation *Satisfies the State of Missouri government requirement.	6
Behavioral and Social Sciences					
Select 6 hours from at least two specific disciplines.					
HIST 117 or HIST 118* or GEOG 116 or PHIL 110 or PHIL 111 or POLSC 115* or PSY 110 or ECON 111 or ECON 110 or Foreign Language	Early Western Civilization or Modern Western Civilization* or Geography of the Developing World or Intro to Philosophy or Logic or American National Government* or Intro to Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6	HISTORY 1100 or HISTORY 1200* or HISTORY 2110 or PHILOS 1105 or PHILOS 1115 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 Self and World: Intro to Philosophy or Logic and Reasoning: An Introduction or American Government* or General Psychology or Principles of Microeconomics or Principles of Macroeconomics or Elementary or Intermediate Foreign Language *Satisfies the State of Missouri government requirement.	6
Humanities, Arts, and Social Sciences					
Select 3 hours.					
HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3	HASS Elective	Humanities, Arts, Social Sciences Elective: Any history, art, music, theater, English and technical communication, philosophy, political science, psychology, economics, etymology, or foreign language.	3
No free electives applied to the degree.		0	Maximum Free Electives		0
Group 2 Major Requirements		38	Group 2 Major Requirements		37
Group 1 Core Requirements		29	Group 1 Core Requirements		26
Total Hours		67			Total Hours*
					63
*S&T advisor permission is required to transfer more than 69 credits toward the S&T Petroleum Engineering degree.					