

<b>MINE OPERATIONS TRACK – 128 UNITS</b>	
<b>Freshman Year – Fall Semester</b>	<b>Freshman Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - TRAD 160A or 160B</b>	General Education – 3 units, <b>Tier I - TRAD 160C or 160D</b>
English – 3 units, <b>ENGL 101</b>	English – 3 units, <b>ENGL 102</b>
Analytical Chemistry with Lab – 4 units, <b>CHEM 151</b>	Analytical Chemistry with Lab – 4 units, <b>CHEM 152</b>
Introduction to Engineering Design – 3 units, <b>ENGR 102</b>	Mechanics – 4 units, <b>PHYS 141</b>
Calculus I – 3 units, <b>MATH 124 or 125</b>	Calculus II – 3 units, <b>MATH 129</b>
<b>16 UNITS</b>	<b>17 UNITS</b>
<b>Sophomore Year – Fall Semester</b>	<b>Sophomore Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - INDV 150A</b>	General Education – 3 units, <b>Tier I - INDV 150B or 150C</b>
Introduction to Mining Engineering – 3 units, <b>MNE 200</b>	Mineralogy and Petrology for Engineers – 2 units, <b>MNE 210</b>
Physical Geology – 4 units, <b>GEOS 251</b>	Electricity & Magnetism – 4 units, <b>PHYS 241</b>
Statics – 3 units, <b>CE 214</b>	Mechanics of Materials – 3 units, <b>CE 215</b>
Vector Calculus – 4 units, <b>MATH 223</b>	Differential Equations – 3 units, <b>MATH 254</b>
Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>
<b>17 UNITS</b>	<b>16 UNITS</b>
<b>ENFORCE UPPER DIVISION STANDING AT THIS POINT</b>	
<b>Junior Year – Fall Semester</b>	<b>Junior Year – Spring Semester</b>
Fluid Mechanics – 3 units, <b>CE 218</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Mine Examination and Valuation – 3 units, <b>MNE 430</b>	
Thermodynamics – 1 unit, <b>ENGR 211K</b>	Probability & Statistics – 3 units, <b>MNE 402 or CE 310 or SIE 305</b>
Circuits – 1 unit, <b>ENGR 211M</b>	
Mine Surveying – 2 units, <b>MNE 412</b>	Mine Ventilation – 3 units, <b>MNE 406A,B</b>
Need MSHA Underground Certification – 1 unit, <b>MNE 494A</b>	
Health & Safety – 1 unit, <b>MNE 426</b>	Surface Mine Design – 4 units, <b>MNE 434</b>
Geomechanics – 4 units, <b>MNE 427</b>	Underground Mine Design – 2 units, <b>MNE 438</b>
Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>
<b>15 UNITS</b>	<b>16 UNITS</b>
<b>Senior Year – Fall Semester</b>	<b>Senior Year – Spring Semester</b>
Mineral Processing – 3 units, <b>MNE 411</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Sustainable Resource Development – 3 units, <b>MNE 422</b>	Structural Geology – 4 units, <b>GEOS 304</b>
Technical Elective – 3 units, advisor approval, upper division	Technical Elective – 3 units, advisor approval, upper division
Rock Excavation – 3 units, <b>MNE 415</b>	Underground Construction – 3 units, <b>MNE 447</b>
Equipment Operations Technology – 3 units, <b>MNE 407</b>	
Senior Design – 1 unit, <b>MNE 498</b>	Senior Design – 2 units, <b>MNE 498</b>
<b>16 UNITS</b>	<b>15 UNITS</b>

<b>GEOMECHANICS TRACK – 128 UNITS</b>	
<b>Freshman Year – Fall Semester</b>	<b>Freshman Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - TRAD 160A or 160B</b>	General Education – 3 units, <b>Tier I - TRAD 160C or 160D</b>
English – 3 units, <b>ENGL 101</b>	English – 3 units, <b>ENGL 102</b>
Analytical Chemistry with Lab – 4 units, <b>CHEM 151</b>	Analytical Chemistry with Lab – 4 units, <b>CHEM 152</b>
Introduction to Engineering Design – 3 units, <b>ENGR 102</b>	Mechanics – 4 units, <b>PHYS 141</b>
Calculus I – 3 units, <b>MATH 124 or 125</b>	Calculus II – 3 units, <b>MATH 129</b>
<b>16 UNITS</b>	<b>17 UNITS</b>
<b>Sophomore Year – Fall Semester</b>	<b>Sophomore Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - INDV 150A</b>	General Education – 3 units, <b>Tier I - INDV 150B or 150C</b>
Introduction to Mining Engineering – 3 units, <b>MNE 200</b>	Mineralogy and Petrology for Engineers – 2 units, <b>MNE 210</b>
Physical Geology – 4 units, <b>GEOS 251</b>	Electricity & Magnetism – 4 units, <b>PHYS 241</b>
Statics – 3 units, <b>CE 214</b>	Mechanics of Materials – 3 units, <b>CE 215</b>
Vector Calculus – 4 units, <b>MATH 223</b>	Differential Equations – 3 units, <b>MATH 254</b>
Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>
<b>17 UNITS</b>	<b>16 UNITS</b>
<b>ENFORCE UPPER DIVISION STANDING AT THIS POINT</b>	
<b>Junior Year – Fall Semester</b>	<b>Junior Year – Spring Semester</b>
Fluid Mechanics – 3 units, <b>CE 218</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Mine Examination and Valuation – 3 units, <b>MNE 430</b>	
Thermodynamics – 1 unit, <b>ENGR 211K</b>	Probability & Statistics – 3 units, <b>MNE 402 or CE 310 or SIE 305</b>
Circuits – 1 unit, <b>ENGR 211M</b>	
Mine Surveying – 2 units, <b>MNE 412</b>	Mine Ventilation – 3 units, <b>MNE 406A,B</b>
Need MSHA Underground Certification – 1 unit, <b>MNE 494A</b>	
Health & Safety – 1 unit, <b>MNE 426</b>	Surface Mine Design – 4 units, <b>MNE 434</b>
Geomechanics – 4 units, <b>MNE 427</b>	Underground Mine Design – 2 units, <b>MNE 438</b>
Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>
<b>15 UNITS</b>	<b>16 UNITS</b>
<b>Senior Year – Fall Semester</b>	<b>Senior Year – Spring Semester</b>
Soil Mechanics – 5 units, <b>CE 343,349</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Sustainable Resource Development – 3 units, <b>MNE 422</b>	Structural Geology – 4 units, <b>GEOS 304</b>
	Technical Elective – 4 units, advisor approval, upper division
Rock Excavation – 3 units, <b>MNE 415</b>	Underground Construction – 3 units, <b>MNE 447</b>
Equipment Operations Technology – 3 units, <b>MNE 407</b>	
Senior Design – 1 unit, <b>MNE 498</b>	Senior Design – 2 units, <b>MNE 498</b>
<b>15 UNITS</b>	<b>16 UNITS</b>

<b>SUSTAINABLE RESOURCE DEVELOPMENT TRACK – 128 UNITS</b>	
<b>Freshman Year – Fall Semester</b>	<b>Freshman Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - TRAD 160A or 160B</b>	General Education – 3 units, <b>Tier I - TRAD 160C or 160D</b>
English – 3 units, <b>ENGL 101</b>	English – 3 units, <b>ENGL 102</b>
Analytical Chemistry with Lab – 4 units, <b>CHEM 151</b>	Analytical Chemistry with Lab – 4 units, <b>CHEM 152</b>
Introduction to Engineering Design – 3 units, <b>ENGR 102</b>	Mechanics – 4 units, <b>PHYS 141</b>
Calculus I – 3 units, <b>MATH 124 or 125</b>	Calculus II – 3 units, <b>MATH 129</b>
<b>16 UNITS</b>	<b>17 UNITS</b>
<b>Sophomore Year – Fall Semester</b>	<b>Sophomore Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - INDV 150A</b>	General Education – 3 units, <b>Tier I - INDV 150B or 150C</b>
Introduction to Mining Engineering – 3 units, <b>MNE 200</b>	Mineralogy and Petrology for Engineers – 2 units, <b>MNE 210</b>
Physical Geology – 4 units, <b>GEOS 251</b>	Electricity & Magnetism – 4 units, <b>PHYS 241</b>
Statics – 3 units, <b>CE 214</b>	Mechanics of Materials – 3 units, <b>CE 215</b>
Vector Calculus – 4 units, <b>MATH 223</b>	Differential Equations – 3 units, <b>MATH 254</b>
Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>
<b>17 UNITS</b>	<b>16 UNITS</b>
<b>ENFORCE UPPER DIVISION STANDING AT THIS POINT</b>	
<b>Junior Year – Fall Semester</b>	<b>Junior Year – Spring Semester</b>
Fluid Mechanics – 3 units, <b>CE 218</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Mine Examination and Valuation – 3 units, <b>MNE 430</b>	
Thermodynamics – 1 unit, <b>ENGR 211K</b>	Probability & Statistics – 3 units, <b>MNE 402 or CE 310 or SIE 305</b>
Circuits – 1 unit, <b>ENGR 211M</b>	
Mine Surveying – 2 units, <b>MNE 412</b>	Mine Ventilation – 3 units, <b>MNE 406A,B</b>
Need MSHA Underground Certification – 1 unit, <b>MNE 494A</b>	
Health & Safety – 1 unit, <b>MNE 426</b>	Surface Mine Design – 4 units, <b>MNE 434</b>
Geomechanics – 4 units, <b>MNE 427</b>	Underground Mine Design – 2 units, <b>MNE 438</b>
Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>
<b>15 UNITS</b>	<b>16 UNITS</b>
<b>Senior Year – Fall Semester</b>	<b>Senior Year – Spring Semester</b>
Industrial & Environmental Health – 3 units, <b>MNE 484</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Sustainable Resource Development – 3 units, <b>MNE 422</b>	
Technical Elective – 3 units, advisor approval, upper division	Technical Elective – 6 units, advisor approval, upper division
Mineral Processing – 3 units, <b>MNE 411</b>	Structural Geology – 4 units, <b>GEOS 304</b>
Equipment Operations Technology – 3 units, <b>MNE 407</b>	
Senior Design – 1 unit, <b>MNE 498</b>	Senior Design – 2 units, <b>MNE 498</b>
<b>16 UNITS</b>	<b>15 UNITS</b>

<b>MINERAL PROCESSING TRACK – 128 UNITS</b>	
<b>Freshman Year – Fall Semester</b>	<b>Freshman Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - TRAD 160A or 160B</b>	General Education – 3 units, <b>Tier I - TRAD 160C or 160D</b>
English – 3 units, <b>ENGL 101</b>	English – 3 units, <b>ENGL 102</b>
Analytical Chemistry with Lab – 4 units, <b>CHEM 151</b>	Analytical Chemistry with Lab – 4 units, <b>CHEM 152</b>
Introduction to Engineering Design – 3 units, <b>ENGR 102</b>	Mechanics – 4 units, <b>PHYS 141</b>
Calculus I – 3 units, <b>MATH 124 or 125</b>	Calculus II – 3 units, <b>MATH 129</b>
<b>16 UNITS</b>	<b>17 UNITS</b>
<b>Sophomore Year – Fall Semester</b>	<b>Sophomore Year – Spring Semester</b>
General Education – 3 units, <b>Tier I - INDV 150A</b>	General Education – 3 units, <b>Tier I - INDV 150B or 150C</b>
Introduction to Mining Engineering – 3 units, <b>MNE 200</b>	Mineralogy and Petrology for Engineers – 2 units, <b>MNE 210</b>
Physical Geology – 4 units, <b>GEOS 251</b>	Electricity & Magnetism – 4 units, <b>PHYS 241</b>
Statics – 3 units, <b>CE 214</b>	Mechanics of Materials – 3 units, <b>CE 215</b>
Vector Calculus – 4 units, <b>MATH 223</b>	Differential Equations – 3 units, <b>MATH 254</b>
Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 296A</b>
<b>17 UNITS</b>	<b>16 UNITS</b>
<b>ENFORCE UPPER DIVISION STANDING AT THIS POINT</b>	
<b>Junior Year – Fall Semester</b>	<b>Junior Year – Spring Semester</b>
Fluid Mechanics – 3 units, <b>CE 218</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Mine Examination and Valuation – 3 units, <b>MNE 430</b>	
Thermodynamics – 1 unit, <b>ENGR 211K</b>	Probability & Statistics – 3 units, <b>MNE 402 or CE 310 or SIE 305</b>
Circuits – 1 unit, <b>ENGR 211M</b>	
Mine Surveying – 2 units, <b>MNE 412</b>	Mine Ventilation – 3 units, <b>MNE 406A,B</b>
Need MSHA Underground Certification – 1 unit, <b>MNE 494A</b>	
Health & Safety – 1 unit, <b>MNE 426</b>	Surface Mine Design – 4 units, <b>MNE 434</b>
Mineral Processing – 3 units, <b>MNE 411</b>	Underground Mine Design – 2 units, <b>MNE 438</b>
Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>	Seminar – 1 unit for 2 semesters, <b>MNE 396A</b>
<b>14 UNITS</b>	<b>16 UNITS</b>
<b>Senior Year – Fall Semester</b>	<b>Senior Year – Spring Semester</b>
In-Situ Leaching – 3 units, <b>MNE 450</b>	General Education – 3 units, <b>Tier II INDV, ARTS or HUMS</b>
Sustainable Resource Development – 3 units, <b>MNE 422</b>	Chemistry of Flotation – 3 units, <b>MNE 439</b>
Technical Elective – 3 units, advisor approval, upper division	Hydrometallurgy – 3 units, <b>MNE 465</b>
Geomechanics – 4 units, <b>MNE 427</b>	Structural Geology – 4 units, <b>GEOS 304</b>
Equipment Operations Technology – 3 units, <b>MNE 407</b>	
Senior Design – 1 unit, <b>MNE 498</b>	Senior Design – 2 units, <b>MNE 498</b>
<b>17 UNITS</b>	<b>15 UNITS</b>