AEROSPACE ENGINEERING

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B, or Math 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I, or Chemistry 161/163	CHM 151IN
ENGL 101 or 107 or 109H First Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
AME 105 Introduction to MATLAB I	ENG 105IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
ECE 175 Computer Programming for Engineering Applications	ENG 175IN
Tier I General Education	AGEC-S
3rd Semester	
CE 214 Statics	ENG 210
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
AME 205 Introduction to MATLAB II	ENG 205IN
Tier I General Education	AGEC-S
AME 211 Computer Aided Drafting and Manufacturing	UA ONLY
4th Semester	
AME 230 Thermodynamics	ENG 232
AME 250 Dynamics	ENG 220
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier I General Education	AGEC-S
AME 220 Introduction to Aerospace Engineering	UA ONLY

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ARCHITECTURAL ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B, or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I, or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
Tier I General Education	AGEC-S
Tier I General Education	AGEC-S
3rd Semester	
CE 214 Statics	ENG 210
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity & Magnetism or PHYS 261H	PHY 216IN
ARCE 295 Intro to Architectural Engineering	UA ONLY
ARC 220 History of Applied Building Technology	UA ONLY
4th Semester	
CE 215 Mechanics of Materials	ENG 230
AME 230 Thermodynamics	ENG 232
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier I General Education	AGEC-S
ARCE 210 Build Information Modeling	UA ONLY
ARCE 223 Building Technology III, EAS I	UA ONLY

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BIOMEDICAL ENGINEERING

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry II or CHEM 162/164	CHM 152IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 or 108 or 109H First Year Composition	WRT 102
BME 295C Challenges in Biomedical	UA ONLY & SPRING ONLY
Tier I General Education	AGEC-S
3rd Semester	
BE 284 Biosystems Thermal Engineering (Fall only) OR AME 230 Thermodynamics (supports ME minor)	ENG 232
BME 214 Introduction to Biomechanics (Fall only) OR CE 214 Statistics	ENG 210
MATH 223 Vector Calculus	MAT 241
MCB 181R Introductory Biology I & MCB 181L Biotechnology Laboratory	BIO 181IN
ECE 175 Intro Computer Programming or CSC 250 Essential Computing for the Sciences	UA ONLY
4th Semester	
BME 210 Intermediate BME Design	UA ONLY & SPRING ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
PSIO 201 Human Anatomy and Physiology I	BIO 201IN
Tier I General Education	AGEC-S

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BIOSYSTEMS ENGINEERING

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry II or CHEM 162/164	CHM 152IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 of 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
CE 214 Statics	ENG 210
MATH 223 Vector Calculus	MAT 241
MCB 181R Introductory Biology I & MCB 181L Lab or PLS 240 Plant Biology	BIO 181IN
BE 201 Introduction to Biosystems Engineering	UA ONLY
BE 284 Biosystems Thermal Engineering	UA ONLY, FALL ONLY
4th Semester	
MATH 254 Intro to Ordinary Differential Equations	MAT 262
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
ECOL 182R/L Introductory Biology II or MIC 205 A/L General Microbiology or PSIO 201 Human Anatomy and Physiology	BIO 181IN BIO 205IN BIO 201IN
Tier I General Education	AGEC-S
BE 205 Engineering Analytic Computer Skills	UA ONLY, SPRING ONLY

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CHEMICAL ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 105A/106A	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
AME 105 Introduction to MATLAB I	ENG 105IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 or 108 First-Year Composition	WRT 102
CHEM 152 General Chemistry II or CHEM 162/164 or MSE 110	CHM 152IN
3rd Semester	
CHEE 201 Elements of Chemical and Environmental Engineering I (Fall Only)	UA ONLY, FALL ONLY
CHEE 201L Elements of Chemical and Environmental Engineering I Computational Lab (Fall Only)	UA ONLY, FALL ONLY
MATH 223 Vector Calculus	MAT 241
CHEM 241 A Lectures in Organic Chemistry or CHEM 242A or 246A	CHEM 235IN
CHEM 243A Organic Chemistry Laboratory or CHEM 247A	CHEM 235IN
Tier I General Education	AGEC-S
4th Semester	
CHEE 202 Elements of Chemical Engineering II (Spring Only)	UA ONLY, SPRING ONLY
CHEE 203 Chemical Engineering Heat Transfer and Fluid Flow	UA ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN

CHEM 241B Lectures in Organic Chemistry or CHEM 242B or CHEM 246B	CHM 236IN
AME 205 Introduction to MATLAB II or CE 260 Computer Programming	ENG 205IN (ENG 105IN pre-req or co-req)

CIVIL ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 105A/106A	CHM 151IN
ENGL 101 or 102 or 109H First-Year Composition	WRT 101
ENGR 102 A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MCB 181R Introductory Biology I & MCB 181L Lab or GEOS 251 Physical Geology	BIO 181IN OR GLG 101IN
PHYS 141 Introductory Mechanics or PHYS 261H	PHY 210IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
CE 210 Engineering Graphics	ENG 120IN
CE 214 Statics	ENG 210
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H or CHEM 152 General Chemistry II or CHEM 105B/106B	PHY 216IN OR CHM 152IN
Tier I General Education	AGEC-S
4th Semester	
CE 215 Mechanics of Solids	ENG 230
CE 218 Mechanics of Fluids	ENG 218
MATH 254 Intro to Ordinary Differential Equations	MAT 262
CE 251 Elementary Surveying	ENG 130IN
Tier I General Education	AGEC-S
CE 260 Computer Programming in Civil Engineering	**UA ONLY**

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ELECTRICAL & COMPUTER ENGINEERING

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
ECE 175 Computer Programming for Engineering Applications	ENG 175IN
PHYS 141 Introductory Mechanics or PHYS 261H	PHY 210IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
ECE 274A Digital Logic	ENG 274IN
ECE 275 Computer Programming for Engineering Applications II	ENG 276IN
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
Tier I General Education	AGEC-S
4th Semester	
ECE 220 Basic Circuits	ENG 282IN
PHYS 143 Introductory Optics and Thermodynamics Or PHYS 142/162H	PHY 221IN
MATH 243 Discrete Mathematics in Computer Science or CSC 245 Intro to Discrete Structures	MAT 227
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier II General Education	AGEC-S

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ENGINEERING MANAGEMENT

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102 A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry II or CHEM 162/164 or MSE 110 Solid State Chemistry	CHM 152IN OR ENG 110IN
ECE 175 Computer Programming for Engineering Applications OR CSC 110 Intro to Computer Programming I	ENG 175IN OR CIS 129
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus	MAT 241
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
Tier I General Education	AGEC-S
Tier II General Education	AGEC-S
SIE 265 Engineering Management I	UA ONLY
4th Semester	
CE 214 Statics	ENG 210
CHEE 201 Elements of Chemical Engineering (Fall Only) OR AME 230 Thermodynamics	ENG 232
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
SIE 270 Mathematical Foundations of Systems and Industrial Engineering	UA ONLY & SPRING or SUMMER ONLY
SIE 295S Systems & Industrial Engineering Sophomore Colloquium	UA ONLY
Tier I General Education	AGEC-S

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ENVIRONMENTAL ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 105A/106A	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry II or CHEM 105B/106B OR MSE 110	CHM 152IN or ENG 110
AME 105 Introduction to MATLAB I	ENG 105IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus	MAT 241
CHEM 241A Lectures in Organic Chemistry AND CHEM 243A Organic Chemistry Laboratory I	CHM 235IN
ENVS 200 Introduction to Soil Science	AGR 200IN
CHEE 295E Careers in Environmental Engineering	UA ONLY
CHEE 201 Elements of Chemical Engineering I &CHEE 201L Lab	UA ONLY & FALL ONLY
4th Semester	
CHEE 202 Elements of Chemical Engineering II	UA ONLY & SPRING ONLY
CHEE 370R Environmental & Water Engineering	UA ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262
PHYS 241 Introductory Electricity & Magnetism or PHYS 261H	PHY 216IN
ENGR 211C Engineering Science Module - Statics	UA ONLY
AME 205 Introduction to MATLAB II or CE 260 Computer Programming	ENG 205IN

MATERIALS SCIENCE ENGINEERING

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122 A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MSE 110 Solid State Chemistry	ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 - First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity & Magnetism or PHYS 261H	PHY 216IN
Tier I General Education	AGEC-S
MSE 280 Introduction to Computer Methods in MSE – Fall only	UA ONLY & FALL ONLY
MSE 222 Introduction to Materials Science I	UA ONLY & FALL ONLY
4th Semester	
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier I General Education	AGEC-S
MSE 223R Introduction to Materials Science and Engineering II	UA ONLY & SPRING ONLY
MSE 223L Materials Processing Laboratory	UA ONLY & SPRING ONLY
MSE 345 Thermodynamics	UA ONLY & SPRING ONLY

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MECHANICAL ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 105A/106A	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
AME 105 Introduction to MATLAB I	ENG 105IN
ECE 175 Computer Programming for Engineering Applications	ENG 175IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
CE 214 Statics	ENG 210
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity & Magnetism or PHYS 261H	PHY 216IN
AME 211 Computer -Aided Drafting and Manufacturing	UA ONLY
Tier I General Education	AGEC-S
4th Semester	
AME 230 Thermodynamics	ENG 232
AME 250 Dynamics	ENG 220
MATH 254 Intro to Ordinary Differential Equations	MAT 262
ECE 207 Elements of Electrical Engineering	ENG 260
AME 205 Introduction to MATLAB II	ENG 205IN
Tier I General Education	AGEC-S

MINING ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry I or CHEM 162/164 or MSE 110 Solid State Chemistry	CHM 152IN or ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
CE 214 Statics	ENG 210
GEOS 251 Physical Geology	GLG 101IN
MATH 223 Vector Calculus	MAT 241
MNE 205 Introduction to Mining Engineering	ENG 201
MNE 296A Mineral Resource Engineering Topics	ENG 297
MNE 297A Underground Mine Safety (**offered the week prior to start of the fall semester)**	UA ONLY
Tier I General Education	AGEC-A
4th Semester	
CE 215 Mechanics of Solids	ENG 230
MATH 254 Intro to Ordinary Differential Equations	MAT 262
MNE 210 Mineralogy and Petrology for Engineers	UA ONLY & SPRING ONLY
MNE 204 Introduction to Electric Circuits & Mine Power Systems	UA ONLY
Tier I General Education	AGEC-S

OPTICAL ENGINEERING

Optics Track:

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MSE 110 Solid State Chemistry	ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210 IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus Tier I General Education	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
Technical Elective – See advisor for course approval	
Tier I General Education	AGEC-S
OPTI 201R Geometrical & Instrumental Optics I	UA ONLY & FALL ONLY
OPTI 201L Geometrical & Instrumental Optics Lab I	UA ONLY & FALL ONLY
4th Semester	
OPTI 202R - Geometrical & Instrumental Optics II	UA ONLY & SPRING ONLY
OPTI 202L - Geometrical & Instrumental Optics Lab II	UA ONLY & SPRING ONLY
OPTI 280 Computer Programming	UA ONLY & SPRING ONLY
OPTI 210 Physics Optics I	UA ONLY & SPRING ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier I General Education	AGEC-S
ECE 207 Elements of Electrical Engineering or	ENG 260 or

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OPTICAL ENGINEERING

ECE 220 Basic Circuits	ENG 282IN

Opto-Materials Track:

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MSE 110 Solid State Chemistry	ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210 IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus Tier I General Education	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
Tier I General Education	AGEC-S
OPTI 201R Geometrical & Instrumental Optics I	UA ONLY & FALL ONLY
OPTI 201L Geometrical & Instrumental Optics Lab I	UA ONLY & FALL ONLY
4th Semester	
OPTI 202R - Geometrical & Instrumental Optics II	UA ONLY & SPRING ONLY
OPTI 202L - Geometrical & Instrumental Optics Lab II	UA ONLY & SPRING ONLY
OPTI 280 Computer Programming	UA ONLY & SPRING ONLY
OPTI 210 Physics Optics I	UA ONLY & SPRING ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262

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OPTICAL ENGINEERING

Tier I General Education	AGEC-S
MSE 345 Thermodynamics	UA ONLY & SPRING ONLY

Opto-Electronics Track:

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MSE 110 Solid State Chemistry	ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210 IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus Tier I General Education	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
ECE 175 Computer Programming for Engineering Applications	ENG 175IN
OPTI 201R Geometrical & Instrumental Optics I	UA ONLY & FALL ONLY
OPTI 201L Geometrical & Instrumental Optics Lab I	UA ONLY & FALL ONLY
4th Semester	
OPTI 202R - Geometrical & Instrumental Optics II	UA ONLY & SPRING ONLY
OPTI 202L - Geometrical & Instrumental Optics Lab II	UA ONLY & SPRING ONLY
OPTI 280 Computer Programming	UA ONLY & SPRING ONLY
OPTI 210 Physics Optics I	UA ONLY & SPRING ONLY

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OPTICAL ENGINEERING

MATH 254 Intro to Ordinary Differential Equations	MAT 262
ECE 220 Basic Circuits	ENG 282IN

Opto-Mechanics Track:

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
MSE 110 Solid State Chemistry	ENG 110IN
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210 IN
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
Tier I General Education	AGEC-S
3rd Semester	
MATH 223 Vector Calculus Tier I General Education	MAT 241
PHYS 241 Introductory Electricity and Magnetism or PHYS 261H	PHY 216IN
CE 214 Statics	ENG 210
Tier I General Education	AGEC-S
OPTI 201R Geometrical & Instrumental Optics I	UA ONLY & FALL ONLY
OPTI 201L Geometrical & Instrumental Optics Lab I	UA ONLY & FALL ONLY
4th Semester	
OPTI 202R - Geometrical & Instrumental Optics II	UA ONLY & SPRING ONLY
OPTI 202L - Geometrical & Instrumental Optics Lab II	UA ONLY & SPRING ONLY

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OPTICAL ENGINEERING

OPTI 280 Computer Programming	UA ONLY & SPRING ONLY
OPTI 210 Physics Optics I	UA ONLY & SPRING ONLY
MATH 254 Intro to Ordinary Differential Equations	MAT 262
AME 250 Dynamics	ENG 220
Tier I General Education	AGEC-S

SYSTEMS ENGINEERING

Engineering

UA COURSE	PIMA CC COURSE
1st Semester	
MATH 122A/B or MATH 125 Calculus I with Applications	MAT 220
CHEM 151 General Chemistry I or CHEM 161/163	CHM 151IN
ENGL 101 or 107 or 109H First-Year Composition	WRT 101
ENGR 102A/B Introduction to Engineering or ENGR 102	ENG 102IN
Tier I General Education	AGEC-S
2nd Semester	
MATH 129 Calculus II	MAT 231
CHEM 152 General Chemistry II or CHEM 162/164 or MSE 110 Solid State Chemistry or MCB 181R/L Introductory Biology I	CHM 152IN OR ENG 110IN OR BIO 181IN
ECE 175 Computer Programming for Computer Applications or CSC 110 Intro to Computer Programming I	ENG 175IN OR CIS 129
ENGL 102 or 108 or 109H First-Year Composition	WRT 102
PHYS 141 Introductory Mechanics or PHYS 161H	PHY 210IN
3rd Semester	
MATH 223 Vector Calculus	MAT 241
PHYS 241 Introductory Electricity & Magnetism or PHYS 261H	PHY 216IN
Tier I General Education	AGEC-S
SIE 250 Introduction to SIE	UA ONLY
SIE 277 Object-Oriented Modeling and Design	UA ONLY
4th Semester	
MATH 254 Intro to Ordinary Differential Equations	MAT 262
Tier I General Education	AGEC-S
Technical Elective/Engineering Minor Course	ENG 220 OR ENG 274IN
SIE 265 Engineering Management I	UA ONLY
SIE 270 Mathematical Foundations of SIE	UA ONLY & SPRING or SUMMER ONLY
SIE 295S SIE Sophomore Colloquium	UA ONLY

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