



**CHANDLER-GILBERT
COMMUNITY
COLLEGE**

480.732.7000
2626 East Pecos Road
Chandler, AZ 85225-2499

ENGINEERING PROGRAM
DIVISION OF SCIENCE

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CIVIL ENGINEERING PROGRAM

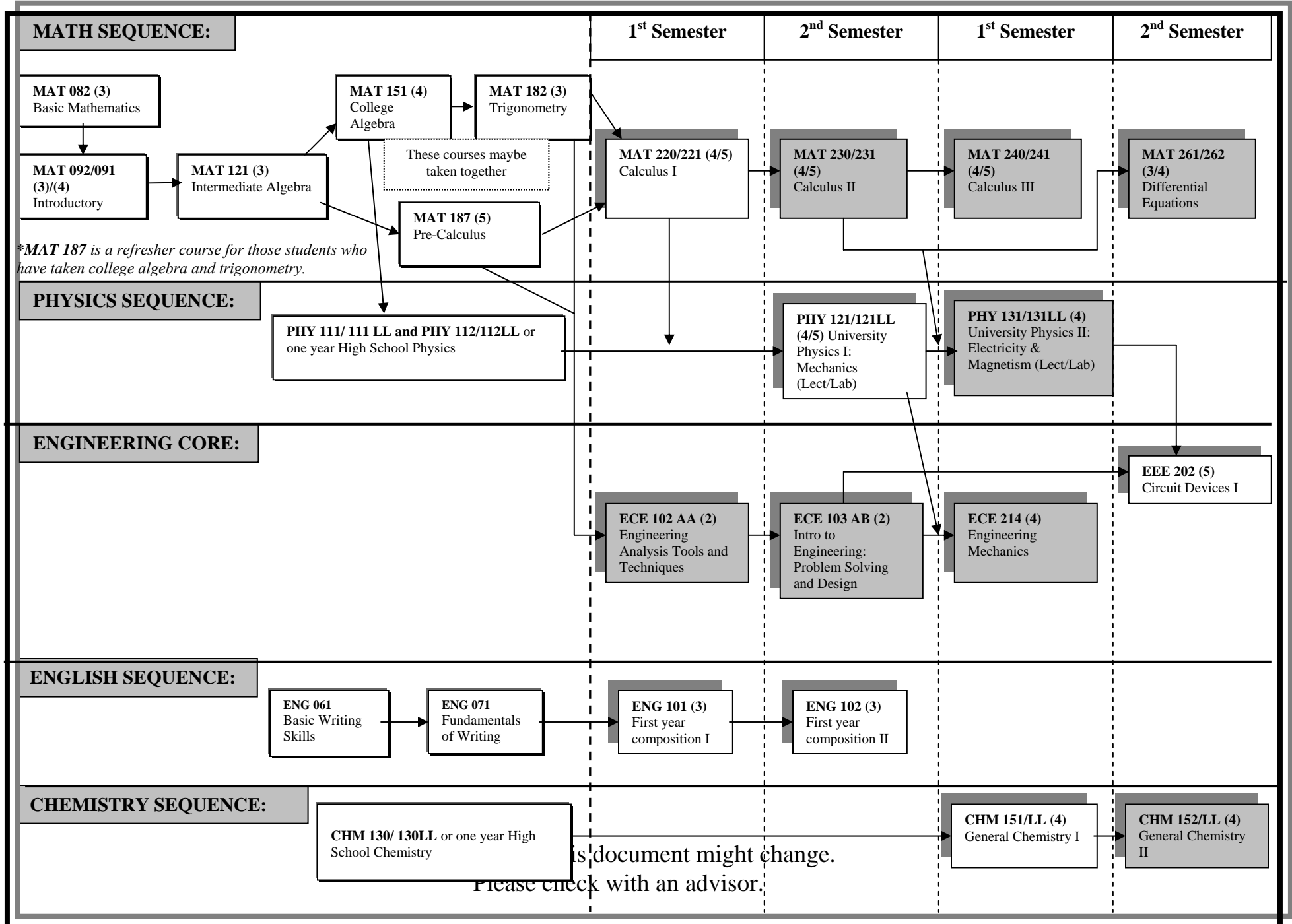
Advisement Packet

The content of this document might change.
Please check with an advisor.

ENGINEERING ASSESSMENTS AND COURSE SEQUENCE CIVIL ENGINEERING

Prerequisite Courses

Required Courses





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ENGINEERING PROGRAM

SUGGESTED SEQUENCING OF COURSES

Civil Engineering Required Courses

(Equivalent units at ASU are indicated between parentheses)

FRESHMAN YEAR				SOPHOMORE YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
ECE 102 AA	2	ECE 103 AB	2 (3)	ECE 214	4 (4)	EEE 202	5 (4)
MAT 220/221	4/5 (3)	MAT 230/231	4/5 (3)	MAT 240/241	4/5 (3)	MAT 261/262	3/4(3)
ENG 101	3 (3)	PHY 121 & 121LL	4 (4)	PHY 131 & 131LL	4 (4)	CHM 152 & 152LL	4 (4)
ECN 111/112	3 (3)	ENG 102	3 (3)	CHM 151 & 151LL	4 (0)	HU/SB	3 (3)
		HU/SB	3 (3)				
Total C.G.C.C. Credits:	12/13	Total C.G.C.C. Credits:	16/17	Total C.G.C.C. Credits: Total ASU Units:	16/17 (11)	Total C.G.C.C. Credits:	15/16
Total ASU Units:	(9)	Total ASU Units:	(16)			Total ASU Units:	(14)
Total number of credit hours at CHANDLER-GILBERT COMMUNITY COLLEGE:							59/63
Total equivalent units at ARIZONA STATE UNIVERSITY:							(50)

Note: According to ASU Civil Engineering advisement sheet:

Humanities & Social Sciences (HU/SB) (15 hrs minimum)

(Required: 1 course upper division; 2 courses from the same dept; 2 depts. or more Represented; plus a minimum of two courses that satisfy three awareness areas: Cultural (C), Global (G), and Historical (H). Double counting is permissible between HU or SB and the awareness areas and also within the awareness areas.)

See attached sheet for available courses at CGCC.

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The following courses meet the general studies requirements:

(Only lower division courses can be taken at Chandler-Gilbert Community College)

Awareness areas are coded:

(H) = **H**istorical (G) = **G**lobal (C) = **C**ultural

HUMANITIES & FINE ARTS (HU):

AJS Administration of Justice	123
ARH Art Humanities	100/101(H)/102(H) 115/118(G)/145(C)/201(G, H)
ASB Anthropology	211(G)/221(G)/222(G, H)/223(G, H)
COM Communication	241
DAH Dance Humanities	100(G)/201(G)
EDU Education	291/292(C)/294(C)
ENH English Humanities	110(C)/112(C)/113/114(C)/201(H)/202(G,H)/204/205(C)/206/214/221(H)222 (H)/230/241/ 242/250/251(G)/254/255(C)/256/259(C)/260(C)/270/275/284(C)/285(C)/289/291/ 294/295(C)
HUM Humanities	101/105AA-AE(C)*/107/108/120(C)/125/190AA-AI*/201(G)/202(G)/203/205/206/207/ 208(C)/ 209(C,H)/210/211AA-AC(G)/213(G)/214(C)/250(H)/251(H)/260(C)/ 261(G,H)/292(C)
MHL Music: History/Literature	140(H)/142(H)/143(G)/145(C)/146/147/153(H)
PHI Philosophy	101/102/103/104(G)/105/106/109/201/213/218/224/225(C)/233AA/233AB /234AA/ 243(G,H)/244/245/246
REL Religious Studies	101/201(H)/202(G)/203(C)/205/213/225(C)/243(G,H)/244/246/270/271
THE Theatre	111/205(H)/206/210/220/260

LITERACY & CRITICAL INQUIRY (L):

COM Communication	207/222/225/230/241
CRE Critical Reading	101
ENG English	111/200/213/215/216/217/218
ENH English Humanities	254/255(C)
GPH Physical Geography	211
HUM Humanities	250(H)/251(H)
JRN Journalism	201/212
MCO Mass Communications	220(C)
PHI Philosophy	103/106
POS Political Science	115
PSY Psychology	290AB-AC
REL Religion	203(C)/205
THE Theatre	220
THP Theatre Performance/Prod.	241

SOCIAL & BEHAVIORAL SCIENCES (SB):

AJS Administration of Justice	101/200/225/258(C)/270(C)
ASB Anthropology	102(G)/211(G)/214(G)/222(G,H)/223(G,H)/230/235(C,H)/238(H)/245(C,H)
CFS Child/Family Studies	157/159/176/205/259
COM Communication	100/110/230/250/263(C,G)
ECN Economics	111/112/160(H)/212(G)/250(G)
EDU Education	221/222(C)
GBS General Business	280
HES Health Science	100
HIS History	100(H)/101(H)/102(G,H)/103(H)/104(H)/105(H)/105AA-AC(H)/106(C,H)/109(C,H)/ 135(H)/145(G,H)/170(C,H)173(H)/201(C,H)/203(C,H)/209(C,H)/241(H)/242(G,H)/ 251(H)/252(H)/272(G,H)/273(G,H)/277(G,H)
POS Political Science	100/110/115/120(G)/125(G)/130/140(G)/210/223(C)/285
PSY Psychology	101/132(C,G)/157(C,G)/215/218/235©/240/245/250/258/260/266/270/277/280/281/292
SOC Sociology	101/110/130/140(C)/141(C,H)/143(C)/157/210/212(C)/215/240(C)/245/251/253/265/270

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EQUIVALENCY INFORMATION for CIVIL ENGINEERING

For transfer from CGCC to ASU

<i>CHANDLER-GILBERT COMMUNITY COLLEGE</i>			<i>Arizona State University</i>	
<i>Course</i>	<i>Cr</i>	<i>Title</i>	<i>Course</i>	<i>Cr</i>
CHM 151	3	General Chemistry I	CHM 113	3
CHM 151LL	1	General Chemistry I Lab	CHM 113	1
CHM 152	3	General Chemistry II	CHM 114 or 116	3
CHM 152LL	1	General Chemistry II Lab	CHM 114 or 116	1
ECE102AA & 103AB	2,2=4	Intro to Engineering	CEE 100	3
ECE 214	4	Engineering Mechanics	CEE 211	4
EEE 202	5	Circuit Devices I	EEE 202	4
MAT 220/221	4/5	Calculus I	MAT 265	3
MAT 230/231	4/5	Calculus II	MAT 266	3
MAT 240/241	4/5	Calculus III	MAT 267	3
MAT 261/262	3/4	Differential Equations	MAT 275	3
PHY 121 & 121LL	4	Physics I & Lab	PHY 121 & 122	4
PHY 131 & 131LL	4	Physics II & Lab	PHY 131 & 132	4
ENG 101	3	First Year Comp. (ENGLISH)	ENG101	3
ENG 102	3	First Year Comp. (ENGLISH)	ENG102	3



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PERSONAL ENGINEERING SCHEDULE

FRESHMAN YEAR				SOPHOMORE YEAR			
First Semester		Second Semester		First Semester		Second Semester	
Course	Cr	Course	Cr	Course	Cr	Course	Cr
Total C.G.C.C. Credits:		Total C.G.C.C. Credits:		Total C.G.C.C. Credits:		Total C.G.C.C. Credits:	
Total ASU Units:	()	Total ASU Units:	()	Total ASU Units:	()	Total ASU Units:	()
Total number of credit hours at CHANDLER-GILBERT COMMUNITY COLLEGE:							
Total equivalent units at ARIZONA STATE UNIVERSITY:							()

Civil Engineering Skill Set

Course	Credits	Course Name	Course Description
ECE 102AA	2	Engineering Analysis Tools and Techniques	Learning culture of engineering, engineering use of computer tools, and computer modeling as applied to engineering analysis and design. Prerequisites: Two years of high school algebra or MAT122 or departmental approval. Corequisites: MAT151 or MAT182 or MAT187.
ECE 103AB	2	Engineering Problem Solving and Design	Fundamentals of the design process: engineering modeling, communication and problem-solving skills in a team environment. Emphasis on process-based improvements to the design process. Introduction to engineering as a profession. Prerequisites: ECE102 and (high school physics or PHY111).
ECE 214	4	Engineering Mechanics - Statics & Dynamics (L+L)	Mathematical treatment of the basic physical principles of statics. Methods of vector algebra and vector calculus. Kinematics and kinetics of particles, translating and rotating coordinate systems, rigid body kinematics, dynamics of systems of particles and rigid bodies, and energy and momentum principles. Prerequisites: MAT241, ECE103, (PHY115 or PHY121).
CHM 152+152LL	4	General Chemistry II (L+L)	A study of the chemical properties of the major groups of elements, equilibrium theory, thermodynamics, electrochemistry, and other selected topics. Completion of CHM152LL required to meet the Natural Science requirement. Prerequisites: CHM151 and CHM151LL.
MAT 225	3	Elementary Linear Algebra (LEC)	Introduction to matrices, system of linear equations, determinates, vector spaces, linear transformations and eigenvalues. Emphasizes the development of computational skills. Prerequisites: Grade of "C" or better in MAT212 or MAT220, or MAT221, or equivalent.
MAT 230/231	4/5	Calculus with Analytic Geometry II (LEC)	Methods of integration, applications of calculus, elements of analytic geometry, improper integrals, sequences and series. May receive credit for only one of the following: MAT230 or MAT231. Prerequisites: Grade of "C" or better in MAT220, or MAT221, or equivalent.
MAT 240/241	4/5	Calculus with Analytic Geometry III (LEC)	Vector-valued functions of several variables, multiple integration, introduction to vector analysis. Prerequisites: Grade of "C" or better in MAT230 or MAT231.
MAT 261/262	3/4	Differential Equations (LEC)	Ordinary differential equations with applications including Laplace transforms with numerical methods. Prerequisites: Grade of "C" or better in MAT230, or MAT231, or equivalent.
PHY 131+131LL	4	University Physics II: Electricity and Magnetism (L+L)	Electric charge and current, electric and magnetic fields in vacuum and in materials, and induction. AC circuits, displacement current, and electromagnetic waves. Prerequisites: MAT230, or MAT231, or department consent, and PHY121. Corequisites: MAT241 or department consent.
<i>TOTAL CREDITS</i>	<i>30/33</i>		

Minimum GPA may vary from semester to semester. See ASU's Civil Engineering department/website for more details (<http://www.fulton.asu.edu/civil/>).

