



**CHANDLER-GILBERT  
COMMUNITY  
COLLEGE**

480.732.7000  
2626 East Pecos Road  
Chandler, AZ 85225-2499

***ENGINEERING PROGRAM  
DIVISION OF SCIENCE***

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# **AEROSPACE ENGINEERING PROGRAM**

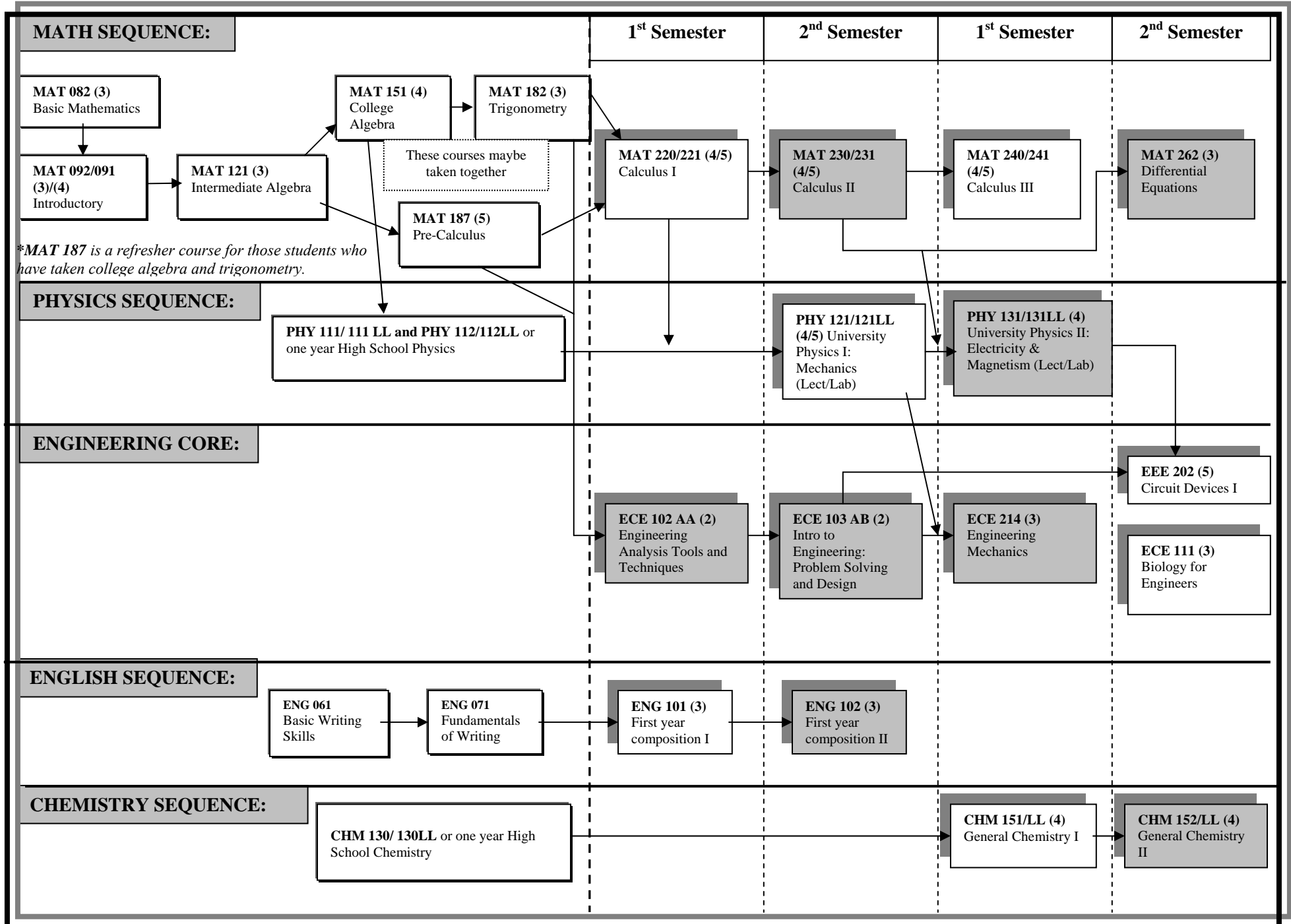
# **Advisement Packet**

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

# ENGINEERING ASSESSMENTS AND COURSE SEQUENCE AEROSPACE ENGINEERING

## Prerequisite Courses

## Required Courses





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**ENGINEERING PROGRAM**

**SUGGESTED SEQUENCING OF COURSES**

**Aerospace 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)	ECE 111	3 (3)
ECN 111 or 112	3 (3)	PHY 121 & 121LL	4 (4)	PHY 131 & 131LL	4 (4)	MAT 262	3 (3)
ENG 101	3 (3)	ENG 102	3 (3)	CHM 151 & 151LL	4 (0)	CHM 152 & 152LL	4 (4)
		HU/SB	3 (3)			HU/SB	3 (3)
Total C.G.C.C. Credits:	<b>12/13</b>	Total C.G.C.C. Credits:	<b>16/17</b>	Total C.G.C.C. Credits:	<b>16/17</b>	Total C.G.C.C. Credits:	<b>18</b>
Total ASU Units:	<b>(10)</b>	Total ASU Units:	<b>(17)</b>	Total ASU Units:	<b>(11)</b>	Total ASU Units:	<b>(17)</b>
Total number of credit hours at <b>CHANDLER-GILBERT COMMUNITY COLLEGE:</b>							<b>63/60</b>
Total equivalent units at <b>ARIZONA STATE UNIVERSITY:</b>							<b>(54)</b>

**Note:**

**According to ASU Aerospace & Mechanical 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.

**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) = **Historical** (G) = **Global** (C) = **Cultural**

**HUMANITIES & FINE ARTS (HU):**

<b>AJS</b> Administration of Justice	123
<b>ARH</b> Art Humanities	100/101(H)/102(H) 115/118(G)/145(C)/201(G, H)
<b>ASB</b> Anthropology	211(G)/221(G)/222(G, H)/223(G, H)
<b>COM</b> Communication	241
<b>DAH</b> Dance Humanities	100(G)/201(G)
<b>EDU</b> Education	291/292(C)/294(C)
<b>ENH</b> 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)
<b>HUM</b> 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)
<b>MHL</b> Music: History/Literature	140(H)/142(H)/143(G)/145(C)/146/147/153(H)
<b>PHI</b> Philosophy	101/102/103/104(G)/105/106/109/201/213/218/224/225(C)/233AA/233AB 234AA/243(G,H)/244/245/246
<b>REL</b> Religious Studies	101/201(H)/202(G)/203(C)/205/213/225(C)/243(G,H)/244/246/270/271
<b>THE</b> Theatre	111/205(H)/206/210/220/260

**LITERACY & CRITICAL INQUIRY (L):**

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

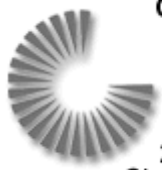
**SOCIAL & BEHAVIORAL SCIENCES (SB):**

<b>AJS</b> Administration of Justice	101/200/225/258(C)/270(C)
<b>ASB</b> Anthropology	102(G)/211(G)/214(G)/222(G,H)/223(G,H)/230/235(C,H)/238(H)/245(C,H)
<b>CFS</b> Child/Family Studies	157/159/176/205/259
<b>COM</b> Communication	100/110/230/250/263(C,G)
<b>ECN</b> Economics	111/112/160(H)/212(G)/250(G)
<b>EDU</b> Education	221/222(C)
<b>GBS</b> General Business	280
<b>HES</b> Health Science	100
<b>HIS</b> 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)
<b>POS</b> Political Science	100/ 110/115/120(G)/125(G)/130/140(G)/210/223(C)/285
<b>PSY</b> Psychology	101/132(C,G)/157(C,G)/215/218/235©/240/245/250/258/260/266/270/277/280/281/292
<b>SOC</b> Sociology	101/110/130/140(C)/141(C,H)/143(C)/157/210/212(C)/215/240(C)/245/251/ 253/265/270

# **EQUIVALENCY INFORMATION** **for AREOSPACE ENGINEERING**

**For transfer from CGCC to ASU**

<i><b>CHANDLER-GILBERT COMMUNITY COLLEGE</b></i>			<i><b>Arizona State University</b></i>	
<i><b>Course</b></i>	<i><b>Cr</b></i>	<i><b>Title</b></i>	<i><b>Course</b></i>	<i><b>Cr</b></i>
ECE 111	<b>3</b>	Biology for Engineers	BME 111	<b>4</b>
CHM 151	<b>3</b>	General Chemistry I	CHM 113	<b>3</b>
CHM 151LL	<b>1</b>	General Chemistry I Lab	CHM 113	<b>1</b>
CHM 152	<b>3</b>	General Chemistry II	CHM 114 or 116	<b>3</b>
CHM 152LL	<b>1</b>	General Chemistry II Lab	CHM 114 or 116	<b>1</b>
ECE102AA & 103AB	<b>2,2 =4</b>	Engineering Problem Solving and Design	MAE 100	<b>3</b>
EEE 202	<b>5</b>	Circuit Devices I	EEE 202	<b>5</b>
ECE 214	<b>4</b>	Engineering Mechanics	MAE 212	<b>4</b>
MAT 220/221	<b>4/5</b>	Calculus I	MAT 265	<b>3</b>
MAT 230/231	<b>4/5</b>	Calculus II	MAT 266	<b>3</b>
MAT 240/241	<b>4/5</b>	Calculus III	MAT 267	<b>3</b>
MAT 261/262	<b>3/4</b>	Differential Equations	MAT 275	<b>3</b>
PHY 121 & 121LL	<b>4</b>	Physics I & Lab	PHY 121 & 122	<b>4</b>
PHY 131 & 131LL	<b>4</b>	Physics II & Lab	PHY 131 & 132	<b>4</b>
ENG 101	<b>3</b>	First Year Comp. (ENGLISH)	ENG101	<b>3</b>
ENG 102	<b>3</b>	First Year Comp. (ENGLISH)	ENG102	<b>3</b>



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***AEROSPACE & MECHANICAL  
ENGINEERING PROGRAM***

**PERSONAL ENGINEERING SCHEDULE**

<b>FRESHMAN YEAR</b>				<b>SOPHOMORE YEAR</b>			
<b>First Semester</b>		<b>Second Semester</b>		<b>First Semester</b>		<b>Second Semester</b>	
<b>Course</b>	<b>Cr</b>	<b>Course</b>	<b>Cr</b>	<b>Course</b>	<b>Cr</b>	<b>Course</b>	<b>Cr</b>
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:	( )
<b>Total number of credit hours at CHANDLER-GILBERT COMMUNITY COLLEGE:</b>							
<b>Total equivalent units at ARIZONA STATE UNIVERSITY:</b>							( )

## Aerospace Engineering Skill Set

Course	Credits	Course Name	Course Description
ENG 102	2	First-Year Composition (LEC)	Emphasis on rhetoric and composition with a focus on persuasive, research-based writing and understanding writing as a process. Developing advanced college-level writing strategies through three or more writing projects comprising at least 4,000 words in total. Prerequisites: ENG101 with a grade of "C" or better.
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).
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 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.
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.
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>25/27</i>		

Minimum GPA may vary from semester to semester. See ASU's Mechanical and Aerospace Engineering department/website for more details (<http://www.fulton.asu.edu/mae/undergrad/program-description.php>).

