## American International College School of Business, Arts and Sciences

**Program Plan** 

FRESHMAN	COURSES	CREDITS	TOTAL
	AIC1140, APEX 1 (or AIC1100 Introduction to ACE (3 cr))	1	13
	ENG1201, English Composition	3	
FALL	MAT1840, College Algebra and Trigonometry	4	
	CHE1600, General Chemistry I (includes CHE1602, Review)	4	
	CHE1601, General Chemistry I Lab	1	
	ENG1202 Analytical Writing	3	15
	MAT2400, Calculus I	4	
SPRING	CHE1700, General Chemistry II (includes CHE1702, Review)	4	
	CHE1701, General Chemistry II Lab	1	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
SOPHOMORE			
	MAT2500, Calculus II with lab (MAT2501)	4	16
	CHE2400, Organic Chemistry I	3	
FALL	CHE2401, Organic Chemistry I Lab	1	
FALL	PHY3400, General Physics I (includes PHY3402, Review) #	4	
	PHY3401, General Physics I Lab <sup>#</sup>	1	
	Elective	3	
	AIC2140, APEX 2	1	15
	MAT2600, Calculus III with lab (MAT2601)	4	
	CHE2500, Organic Chemistry II	3	
SPRING	CHE2501, Organic Chemistry II Lab	1	
	CHE2200, Introduction to the Scientific Literature	1	
	PHY1600, General Physics II (includes PHY1602, Review) #	4	
	PHY1601, General Physics II Lab <sup>#</sup>	1	
JUNIOR			
	CHE2600, Analytical Chemistry with lab <sup>#</sup>	4	13
FALL	MAT2004, Biostatistics (Gen Ed – Quant Lit)	3	
FALL	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
SPRING	AIC3140, APEX 3	1	15
	CHE4050, Instrumental Analysis with lab ## (CHE4051)	4	
	CHE3XXX, Chemistry elective with lab##	4	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
SENIOR			
FALL	AIC4140, APEX 4	1	16
	CHE3400, Physical Chemistry I <sup>##</sup>	3	
	CHE3401, Physical Chemistry I Lab <sup>##</sup>	1	
	CHE4840, Senior Seminar in Chemistry, with lab (CHE4841)	2	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
	Elective	3	
	Elective	3	
SPRING	CHE3500, Physical Chemistry II <sup>##</sup>	3	17
	CHE3501, Physical Chemistry II Lab##	1	
	CHE3XXX, Chemistry elective with lab	4	
	Elective or CHE4900, Chemistry Research	3	
	Gen Ed course (Civic/Soc Resp or Human Cult/Exp)***	3	
	Elective	3	
		TOTAL	120
		CREDITS:	120

**MAJOR: Chemistry** 

**Catalog Year: 2019-2020** 

## Notes:

 $<sup>^{*}</sup>$ A student will incur additional tuition charges in any semester in excess of 17 credits.

<sup>\*\*</sup>A student must apply to the Dean for permission to take more than 18 credits in any given semester.

<sup>\*\*\*</sup> General Education courses must be selected to satisfy the General Education requirements in Civic and Social Responsibility, Human Culture and Expression, and Scientific and Quantitative Literacy.

<sup>#</sup> These courses may be swapped according to year in which CHE2600 offered (usually scheduled in "odd" fall semesters).

<sup>##</sup> These courses may be swapped according to year in which CHE3400/3500 offered (usually scheduled in "odd" fall/"even" spring semesters).

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School of Business, Arts and Sciences
Catalog Year: 2019-2020
List of Requirements (all courses are 3 credits unless otherwise noted)

## **Major Requirements**

CHE1600	General Chemistry I, with review, CHE1602 and lab CHE1601 (5 cr),	
CHE1700	General Chemistry II, with review, CHE1701 and lab CHE1701 (5 cr)	
CHE2200	Introduction to the Scientific Literature (1 cr)	
CHE2400	Organic Chemistry I with lab CHE2401 (4 cr)	
CHE2500	Organic Chemistry II with lab CHE2501 (4 cr)	
CHE2600	Analytical Chemistry with lab, CHE2601 (4 cr)	
CHE3400	Physical Chemistry I with lab CHE3401 (4 cr)	
CHE3500	Physical Chemistry II with lab CHE3501 (4 cr)	
CHE4050	Instrumental Analysis, with lab CHE4051 (4 cr)	
CHE4840	Senior Seminar (2 cr)	
MAT2004	Biostatistics	
MAT2400	Calculus I (4 cr)	
MAT2500	Calculus II w lab MAT2501	
MAT2600	Calculus III with lab MAT2601 (4 cr)	
PHY1600	General Physics I, with review PHY1602, and lab PHY1601 (5 cr)	
PHY1800	General Physics II, with review, PHY1802 and lab PHY1801 (5 cr)	
		CREDITS
Plus eight credit hours f	rom the following, including two (2) credits of laboratory:	
CHE3600	Advanced Inorganic Chemistry	
CHE3601	Advanced Inorganic Lab (1 cr)	
CHE3650	Spectroscopy of Organic Compounds	
CHE3651	Advanced Organic Lab Techniques (1 cr)	
CHE4200	Biochemistry I with lab CHE4201 (4 cr)	
CHE4300	Biochemistry II with lab CHE4301 (4 cr)	
		CREDITS

American International College School of Business, Arts and Sciences General Education Requirements
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Plus, the following General Education courses (each line represents one course from the list):	
• Personal and Professional Development (4 courses, 4 credits or 6 credits (ACE students) total)	
APEX 1: AIC1140 (1 cr) or AIC1100 Introduction to ACE (3 cr)APEX 2: AIC2140 (1 cr)APEX 3: AIC3140 (1 cr)APEX 4: AIC4140 (1 cr)	
<ul> <li>Civic and Social Responsibility: (4 courses, 12 credits total, with at least 1 course in each area)</li> <li>Individual and Interpersonal Behavior: PSY1401, PSY1501, SOC1010, SOC1100, SOC1400</li> <li>American Heritage/Society: AMS1100, ECO1000, ECO1401, ECO1402, HST1510, HST1520, HST</li> <li>Global Perspective: ECO1010, HST1400, HST1410, HST1420, HST1430, HST1500, HST2440, IBS</li> <li>Any additional course from the 3 subcategories listed above</li> </ul>	
• Human Culture and Expression: (5 courses, 15 credits total, with 2 courses in Composition and Con	nmunication And
Composition and Communication: ENG1201 OR ENG1601Composition and Communication: ENG1202 OR ENG1602	
And 2 courses in 2 different areas, And Language and Literature: Any ENG2XXX-level or higher literature course OR any elementary o language Visual and Fine Arts: ART1000, ART1010, ART1030, ART1100, ART1120, COM2460, COM3290, VDA2640 Philosophy and Ethics: PHI1000, PHI1200, PHI2010, PHI2030	_
And 1 additional course from any of the 3 areas aboveAdditional course from 3 subcategories listed above	
• Scientific Perspectives and Inquiry: (2 courses with labs, 8 credits total including 2 credits in Lab) BIO1020/1021, BIO1100/1101, BIO1110/1111, BIO1130/1131,* BIO1200/1201;* BIO1210/121  *BIO1400/1401, *BIO1500/1501; CHE1100/1101, CHE1110/1111, CHE1200/1201, CHE1600/16  PHY1010/1011, PHY1020/1021, PHY1030/1031, PHY1050/1051, PHY1600/1601, PHY1800/180 BIO1020/1021, BIO1100/1101, BIO1110/1111, BIO1130/1131,* BIO1200/1201;* BIO1210/121  *BIO1400/1401, *BIO1500/1501; CHE1100/1101, CHE1110/1111, CHE1200/1201, CHE1600/16  PHY1010/1011, PHY1020/1021, PHY1030/1031, PHY1050/1051, PHY1600/1601, PHY1800/180  *Restricted to students for which course is a major requirement	501, CHE1700/1701; 1 1; *BIO1300/1301, 501, CHE1700/1701;
Quantitative Literacy: (1 course, 3 credits total)	
MAT1310, 1430, 2004, 2030; PSY2302/CRJ2302	
When counting credits, do not include those for courses included in the major requirements.	CREDITS
Plus, enough elective courses to reach a minimum of 120 total credits.	CREDITS
Course:	
	TOTAL CREDITS
(12	20 min req for graduation)