

**Chemistry – Business****Bachelor of Science (BS.CHEM(BUS))**

<b>Core Requirements</b>				<b>Credits</b>	<b>Notes/Instructions</b>
College Sem.	Quest for Meaning	CSEM 100		3	†A student may be required to take ENGL 105 and/or MATH 100 based on placement exams administered prior to their first semester at King's College. ENGL 105 and MATH 100 are 3-credit courses and will count as free electives. †† The Intercultural Competence requirement can be satisfied by taking a 100-level language class for 3 credits or participating in an approved Study Abroad experience. (See college catalog for more information) <b>SBM</b> = Satisfied By Major requirement and credits listed below.
Communication & Creative Expression	Writing	ENGL 110†		3	
	Oral Communication	COMM 101		3	
	Literature	ENGL 140-149		3	
	The Arts	ARTS 100-149		3	
Citizenship	History	HIST 100-149		3	
	Intercultural	FREN/GERM/SPAN 100-level or Study Abroad††		3	
	Global Connections	ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199		3	
Quantitative & Scientific Reasoning	SBM Quantitative Reasoning	MATH 120+ or higher level		-	
	SBM Scientific Endeavor	NSCI 100		-	
	SBM Science in Context	NSCI 171-199		-	
	SBM Human Beh. & Soc. Inst	ECON 111 <sup>2</sup> , 112; GEOG 101, 102; PS 101, PSYC 101, SOC 101		-	
Wisdom, Faith, & the Good Life	Introduction to Phil.	PHIL 101		3	
	Phil. Investigations <sup>3</sup>	PHIL 170-199; MSB 287 <sup>3</sup>		3	
	Theology & Wisdom	THEO 150-159		3	
	Theology & the Good Life	THEO 160-169		3	
<b>Total Core Credits</b>				<b>36</b>	

<b>Major Requirements</b>		<b>Credits</b>	<b>Major Requirements</b>		<b>Credits</b>	<b>Business Requirements</b>		<b>Credits</b>
CHEM 113 <sup>2</sup>		3	CHEM 114 <sup>PR</sup>		3	ECON 111 <sup>2</sup>		3
CHEM 113L		1	CHEM 114L <sup>PR</sup>		1	ECON 112		3
CHEM 241 <sup>PR</sup>		3	CHEM 242 <sup>PR</sup>		3	ECON 221		3
CHEM 241L <sup>PR</sup>		1	CHEM 242L <sup>PR</sup>		1	MSB 110		3
CHEM 243 <sup>PR</sup>		3	CHEM 244 <sup>PR</sup>		3	MSB 120		3
CHEM 243L <sup>PR</sup>		2	CHEM 244L <sup>PR</sup>		2	MSB 200		3
CHEM 357 <sup>PR</sup>		3	CHEM 358 <sup>PR</sup>		3	MSB 210		3
CHEM 357L <sup>PR</sup>		2	CHEM 358L <sup>PR,*</sup>		2	MSB 220		3
CHEM 351 <sup>PR</sup>		1	CHEM 471 <sup>PR</sup>		3	Business Elective 1 <sup>4</sup>		3
CHEM 493 <sup>PR</sup>		1	CHEM 494 <sup>PR</sup>		1	Business Elective 2 <sup>4</sup>		3
MATH 129 <sup>2</sup>		4	MATH 130 <sup>PR</sup>		4	Free elective <sup>*****</sup>		3
MATH 238 <sup>***PR</sup>		3	PHYS 114 <sup>PR</sup>		3			
PHYS 113 <sup>2,CR</sup>		3	PHYS 114L <sup>PR</sup>		1			
PHYS 113L		1						
<b>Other Requirements</b>								
			HCE 101 Holy Cross Exp.		1			
<b>Total Major Credits</b>		<b>31</b>	<b>Total Major and Other Credits</b>		<b>30</b>	<b>Total Business Credits</b>		<b>33</b>

**Total Credits Required for Graduation = 131**

Students who wish to be eligible for certification by the American Chemical Society must include:

<b>The four (4) courses below:</b>				<b>AND</b>	<b>One of the following 3 credit courses**</b>			
CHEM 358L*	2 cr	CHEM 353****	3 cr	<b>AND</b>	CHEM 359	CHEM 473	CHEM 476	CHEM 479
CHEM 471L	2 cr	CHEM 353L	2 cr		CHEM 425	CHEM 475	CHEM 477	CHEM 490
					CHEM474			

\*CHEM 358L may be replaced by a semester of research (CHEM 396, CHEM 397, CHEM 496, CHEM 497), but must be taken for American Chemical Society certification

\*\* Or any other CHEM course numbered 359 or higher approved by the chair-person of the Chemistry Department

\*\*\* Students may take either MATH 231, MATH 237, MATH 238, or MATH 361 to fulfill the MATH requirement

\*\*\*\*BIOL 353 may substitute for CHEM 353

\*\*\*\*\* A programming course such as ENGR300/L is highly recommended as an elective course

**General Information:**

A student must earn a minimum of 120 credit hours to be awarded the baccalaureate degree. The number of credit hours required for graduation may be higher in certain major programs or if the student elects to pursue a second major. Beyond the requirements of the Core Curriculum and of a student's chosen major program, the balances of the credit hours required for graduation are "free electives."

See reverse side for a suggested sequence

Effective 07/01/2026

# Chemistry – Business

## Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

Fall 2022		Credits	Spring 2023		Credits
CHEM 113 <sup>2</sup>	General Chemistry I	3	CHEM 114 <sup>PR</sup>	General Chemistry II	3
CHEM 113L	General Chemistry I Lab	1	CHEM 114L <sup>PR</sup>	General Chemistry II Lab	1
MATH 129 <sup>2</sup>	Analytic Geometry & Calculus I	4	MATH 130 <sup>PR</sup>	Analytic Geometry & Calculus II	4
PHYS 113 <sup>2,CR</sup>	Physics for Scientists & Engineers I	3	PHYS 114 <sup>PR</sup>	Physics for Scientists & Engineers II	3
PHYS 113L	Physics for Sci. & Eng. I Lab	1	PHYS 114L <sup>PR</sup>	Physics for Sci. & Eng. II Lab	1
	Core Course <sup>1</sup>	3		Core Course <sup>1</sup>	3
	HCE 101 Holy Cross Experience	1			
		<b>16</b>			<b>15</b>
Summer		Credits			
Fall 2023		Credits	Spring 2024		Credits
CHEM 241 <sup>PR</sup>	Organic Chemistry I	3	CHEM 242 <sup>PR</sup>	Organic Chemistry II	3
CHEM 241L <sup>PR</sup>	Organic Chemistry I Lab	1	CHEM 242L <sup>PR</sup>	Organic Chemistry II Lab	1
CHEM 243 <sup>PR</sup>	Analytical Chemistry	3	CHEM 244 <sup>PR</sup>	Instrumental Analysis	3
CHEM 243L <sup>PR</sup>	Analytical Chemistry Lab	2	CHEM 244L <sup>PR</sup>	Instrumental Analysis Lab	2
MATH 238 <sup>PR,6</sup>	Differential Equations	3	ECON 112	Introduction to Microeconomics	3
ECON 111 <sup>2</sup>	Introduction to Macroeconomics	3		Core Course <sup>1</sup>	3
	Core Course <sup>1</sup>	3		Free Elective <sup>7</sup>	3
		<b>18<sup>5</sup></b>			<b>18<sup>5</sup></b>
Summer		Credits			
Fall 2024		Credits	Spring 2025		Credits
CHEM 357 <sup>PR</sup>	Physical Chemistry I	3	CHEM 358 <sup>PR</sup>	Physical Chemistry II	3
CHEM 357L <sup>PR</sup>	Physical Chemistry I Lab	2	CHEM 358L <sup>PR</sup>	Physical Chemistry II Lab	2
CHEM 351 <sup>PR</sup>	Technological Competency	1	MSB 120	Intro. To Mgmt. Accounting & Planning	3
MSB 110	Intro. To Financial Accounting Reporting	3	MSB 210	Principles of Marketing	3
MSB 200	Principles of Management	3		Core Course <sup>1</sup>	3
	Core Course <sup>1</sup>	3		Core Course <sup>1</sup>	3
		<b>15</b>			<b>17</b>
Summer		Credits			
Fall 2025		Credits	Spring 2026		Credits
CHEM 493 <sup>PR</sup>	Senior Colloquium I	1	CHEM 494 <sup>PR</sup>	Senior Colloquium II	1
CHEM 471 <sup>PR</sup>	Advanced Inorganic Chemistry	3	MSB 220	Financial Management	3
ECON 221	Statistics and Predictive Analytics	3		Business Elective 2 <sup>4</sup>	3
	Business Elective 1 <sup>4</sup>	3		Core Course <sup>1</sup>	3
	Core Course <sup>1</sup>	3		Core Course <sup>1</sup>	3
	Core Course <sup>1</sup>	3		Core Course <sup>1</sup>	3
		<b>16</b>			<b>16</b>
<b>Total Credits Required for Graduation = 131</b>					

### NOTES:

<sup>1</sup>Choose one course from each of the Core Requirements listed on the reverse side.

<sup>2</sup>Course may satisfy both a Major and a Core requirement. CHEM 113 and PHYS 113 will satisfy the Scientific Endeavor and Science in Context Core requirements. MATH 129 will satisfy the Quantitative Reasoning Core requirement. ECON 111 will satisfy the Human Behavior & Social Institutions Core requirement.

<sup>3</sup>Students are encouraged to take either MSB 287 – Business Ethics to fulfill the Philosophical Investigation Core requirement.

<sup>4</sup>Chemistry students are encouraged to pursue the following Fall/Spring course sequences to fulfill the Business Elective 1 and 2 requirements:

- Technology Management: BUS 363/L – Operations Management with Lab and BUS 435 – Global Innovation, Technology & Entrepreneurship
- Manufacturing & Operations Management: MKT 385 – Global Supply Chain Management and BUS 363/L – Operations Management with Lab
- Marketing: MKT 330 – Selling Strategies and MKT 390 – International Marketing
- Entrepreneurship: BUS 330 – Entrepreneurship Business Management and BUS 435 – Global Innovation, Technology & Entrepreneurship
- Accounting: ACCT 240/L – Intermediate Accounting I with Lab and ACCT 301 – Intermediate Accounting II

<sup>5</sup>Students are encouraged to take summer courses to relieve the course load pressure during this semester.

<sup>6</sup>Students may take either MATH 231, MATH 237, MATH 238, or MATH 361 to fulfill the MATH requirement

<sup>7</sup>Students may select “free electives” for personal enrichment **OR** for Minor and/or Second Major Requirements. A programming elective such as ENGR300/L is highly encouraged.

<sup>PR</sup> Course has a prerequisite – check college catalog.

<sup>CR</sup> Course has a co-requisite – check college catalog.