

# CHEMISTRY - BUSINESS CONCENTRATION (B.S.)

120 credits of coursework is required for the baccalaureate degree with a minimum 2.0 overall GPA, and a minimum 2.0 major GPA.

## Program Requirements Overview

Code	Title	Credits
	General Education Requirements	29
	World Languages and Cultures Requirements	3-9
	Major Requirements	73
	Free Electives	15-9
	<b>Total Credits</b>	<b>120</b>

## Major Requirements

Code	Title	Credits
<b>Chemistry Core</b>		
CHEM 120	General Chemistry I	4
CHEM 121	General Chemistry II	4
CHEM 230	Organic Chemistry I	3
CHEM 231	Organic Chemistry II	3
CHEM 232	Experimental Organic Chemistry I	2
CHEM 233	Experimental Organic Chemistry II	2
CHEM 310	Analytical Chemistry	5
CHEM 311	Instrumental Analysis	4
CHEM 340	Physical Chemistry I	3
CHEM 495	The Chemical Literature	1
<b>Chemistry Collateral Requirements</b>		
AMAT 120	Applied Calculus A	4
	or MATH 122 Calculus I	
AMAT 220	Applied Calculus B	4
	or MATH 221 Calculus II	
PHYS 191	University Physics I	4
<b>Business Requirements</b>		
ACCT 204	Fundamentals of Accounting	3
BUGN 295	Elements of Business	3
ECON 202	Economics and Finance for Non-Business Majors	3
INFO 173	Spreadsheet Modeling for Business Decisions	3
INFO 240	Statistical Methods in Business	3
MGMT 231	Management Processes	3
	or MKTG 240 Introduction to Marketing	
	<i>Complete the Entrepreneurship, Professional Selling or Management Track. See requirements below.</i>	9
<b>Business Collateral Requirement</b>		
ECON 102	Applied Microeconomics	3
	<b>Total Credits</b>	<b>73</b>

## Tracks

### Entrepreneurship Track

Code	Title	Credits
(Leads to the Entrepreneurship Certificate)		
ENTR 201	The Entrepreneurial Mindset and Innovation	3
ENTR 303	Create and Pitch Your Startup	6
	<b>Total Credits</b>	<b>9</b>

### Professional Selling Track

Code	Title	Credits
(Leads to the Professional Selling Certificate)		
MKTG 250	Professional Selling	3
MKTG 342	Sales Management	3
MKTG 443	Sales Leadership and Negotiation	3
	<b>Total Credits</b>	<b>9</b>

### Management Track

Code	Title	Credits
MGMT 315	Organizational Behavior	3
MGMT 335	Small Business Management	3
MGMT 363	Business and Society	3
	<b>Total Credits</b>	<b>9</b>

## General Education Requirements

Click here for a list of courses that fulfill General Education categories. (<http://catalog.montclair.edu/programs/general-education-requirements-ba-bs/>)

Code	Title	Credits
<b>A. New Student Seminar</b>		
CHEM 190	Freshman Seminar in Chemistry	1
<b>C. Communication</b>		
	1. Writing	3
	2. Literature	3
	3. Communication	3
<b>D. Fine and Performing Arts</b>		
<b>F. Humanities</b>		
	1. Great Works and Their Influences	3
	2. Philosophical and Religious Perspectives	3
<b>G. Computer Science</b>		
	Fulfilled by INFO 173 in the major.	0
<b>H. Mathematics</b>		
	Fulfilled in the major.	0
<b>I. Natural Science Laboratory</b>		
	Fulfilled by CHEM 100 in the major.	0
<b>J. Physical Education</b>		
<b>K. Social Science</b>		
	1. American and European History	3
	2. Global Cultural Perspectives	3
	3. Social Science Perspectives	3
<b>L. Interdisciplinary Studies</b>		
	Fulfilled by ECON 102 in the major.	0
	<b>Total Credits</b>	<b>29</b>

## World Languages and Cultures Requirements

Click here for a list of courses that fulfill World Languages and Cultures categories. (<http://catalog.montclair.edu/programs/world-languages-and-cultures-requirements/>)

Code	Title	Credits
<b>World Languages</b>		
Based on language placement exam, complete one or two sequential courses in the same language. <b>Requirement is automatically fulfilled by language major courses.</b>		
<b>World Cultures</b>		
Requirement may be fulfilled by course selected in General Education - Social Science: Global Cultural Perspectives. Requirement may also be fulfilled by major coursework. See list of courses.		
<b>Total Credits</b>		<b>3-9</b>

## Recommended Roadmap to Degree Completion

This recommended four-year plan is provided as an outline for students to follow in order to complete their degree requirements within four years. This plan is a recommendation and students should only use it in consultation with their academic advisor.

### First Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (C1) Writing	3	GENERAL EDUCATION: (C2) Literature	3
World Language 1	3	GENERAL EDUCATION: (D) Fine and Performing Arts	3
CHEM 190	1	World Language 2	3
CHEM 120	4	CHEM 121	4
MATH 122 or AMAT 120	4	MATH 221 or AMAT 220	4
<b>15</b>		<b>17</b>	

### Second Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (K1) Social Science – American and European History	3	CHEM 231	3
CHEM 230	3	CHEM 233	2
CHEM 232	2	CHEM 310	5
INFO 173	3	ECON 102	3
PHYS 191	4	INFO 240	3
<b>15</b>		<b>16</b>	

### Third Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (C3) Communication	3	GENERAL EDUCATION: (F1) Humanities – Great Works and Their Influences	3

GENERAL EDUCATION: (K2) Social Science – Global Cultural Perspectives	3	GENERAL EDUCATION: (J) Physical Education	1
ACCT 204	3	BUGN 295	3
CHEM 340	3	CHEM 311	4
ECON 202	3	MGMT 231	3
<b>15</b>		<b>14</b>	

### Total Credits 92

### Entrepreneurship Track

#### Fourth Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (F2) Humanities – Philosophical and Religious Perspectives	3	World Cultures	3
GENERAL EDUCATION: (K3) Social Science – Social Science Perspectives	3	ENTR 303	6
CHEM 495	1	Free Elective	3
ENTR 201	3	Free Elective	3
Free Elective	3		
<b>13</b>		<b>15</b>	

### Total Credits 28

### Professional Selling Track

#### Fourth Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (F2) Humanities – Philosophical and Religious Perspectives	3	World Cultures	3
GENERAL EDUCATION: (K3) Social Science – Social Science Perspectives	3	MKTG 342	3
CHEM 495	1	MKTG 443	3
MKTG 250	3	Free Elective	3
Free Elective	3	Free Elective	3
<b>13</b>		<b>15</b>	

### Total Credits 28

### Management Track

#### Fourth Year

Fall	Credits	Spring	Credits
GENERAL EDUCATION: (F2) Humanities – Philosophical and Religious Perspectives	3	GENERAL EDUCATION: (K3) Social Science – Social Science Perspectives	3
CHEM 495	1	World Cultures	3
MGMT 315	3	MGMT 335	3
MGMT 363	3	Free Elective	3

Free Elective	3 Free Elective	3
	<b>13</b>	<b>15</b>
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<b>Total Credits</b>	<b>28</b>	