

# BACHELOR OF SCIENCE DEGREE

## CHEMISTRY

### COORDINATE MAJOR

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE [DEPARTMENT OF CHEMISTRY](#)

#### (1) UNIVERSITY REQUIREMENTS

##### Writing Requirement

Tier I: LB 133 4  
 Tier II: Satisfied by completing the Lyman Briggs College History, Philosophy and Sociology of Science and Senior requirements listed below.

##### Integrative Studies in Arts & Humanities (IAH)

IAH 201-210\* 4  
 IAH 211-241\*† 4

##### Integrative Studies in Social, Behavioral & Economic Sciences (ISS)

ISS 200-level course\* 4  
 ISS 300-level course\*‡ 4

\*National, International, & Multicultural Diversity  
 Students must include at least one "N" course and one "I" course in their Integrative Studies programs. A "D" course may meet either an "N" or an "I" requirement, but not both.

†Beginning Summer 2013, LB 331, 333, and 336 will fulfill the IAH "B" university requirement (IAH 211 or higher). Please consult your LBC advisor for specific details for your program.

‡Beginning Summer 2013, LB 332, 334, and 335 will fulfill the ISS 300-level university requirement. Please consult your LBC advisor for specific details for your program.

##### Mathematics, Biological and Physical Sciences

Satisfied by the Lyman Briggs College requirements in Mathematics, Biological and Physical Sciences (see below).

Minimum number of credits required: 120

Minimum cumulative and major grade point average: 2.0

#### (2) LYMAN BRIGGS COLLEGE REQUIREMENTS

##### Biological Sciences (9 cr.)

Complete ONE of the following groups of courses  
 (1) LB 144 & 145 9  
 (2) BS 161, 162, 171, & 172 9

##### Chemistry (8-9 cr.)

Complete ONE of the following groups of courses  
 (1) LB 171, 171L, 172, & 172L 9  
 (2) CEM 151, 152, 161 & 162 9

##### Physics (8 cr.)

Complete ONE of the following groups of courses  
 (1) LB 273, 274\* 8  
 (2) PHY 183, 184, 191, & 192\* 10

##### Mathematics (6-7 cr.)

Complete ONE of the following groups of courses  
 (1) LB 118 & 119\* 8  
 (2) MTH 132 & 133\* 7

##### History, Philosophy & Sociology of Science (11-12 cr.)

LB 133 4  
 LB 330-336, 355, 490E; ENG 473A; HST 425; SOC 368 7-8

##### Senior Seminar (4 cr.)

LB 492 4

\*Physics and Mathematics courses also meet graduation requirements for major

### (3) MAJOR REQUIREMENTS

Complete ALL of the following courses (43 cr.)

LB	220	Calculus III	4*
MTH	235	Differential Equations	3
CEM	262	Quantitative Analysis	3†
CEM	351	Organic Chemistry I	3
CEM	352	Organic Chemistry II	3
CEM	355	Organic Chemistry Lab I	2
CEM	356	Organic Chemistry Lab II	2
CEM	395	Analytical/Physical Chemistry Lab	2
CEM	411	Inorganic Chemistry	4
CEM	415	Advanced Synthesis Lab	3
CEM	434	Advanced Analytical Chemistry	3
CEM	435	Analytical Chemistry Lab	2
CEM	483	Quantum Chemistry	3
CEM	484	Molecular Thermodynamics	3
CEM	495	Molecular Spectroscopy	2

\*MTH 234 can be substituted for LB 220

†If taking both CEM 185H and 186H, then do not need to take CEM 262

Choose ONE option below (4-6 cr.)

(1) Complete the following course (4 cr.)

BMB	401	Basic Biochemistry	4
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(2) Complete ALL of the following courses (6 cr.)

BMB	461	Advanced Biochemistry I	3
BMB	462	Advanced Biochemistry II	3

**IMPORTANT: These guidelines are presented for planning purposes only. Students MUST consult a department advisor for confirmation of major requirements.**