

# BACHELOR OF SCIENCE DEGREE MATHEMATICS

## COORDINATE MAJOR

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

### (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 10

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

Complete ONE of the following groups of courses  
(1) LB 171, 171L, 172, & 172L 9  
(2) CEM 141, 142, & 161 8

#### Physics (8-8 cr.)

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

#### 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

Students may consult with a Lyman Briggs advisor regarding a possible substitution for the Lyman Briggs Senior Seminar for this major.

### (3) MAJOR REQUIREMENTS

Complete sections A through H

A. Complete the following course (3 cr.)			
MTH	496	Capstone in Mathematics	3
B. Complete ONE of the following courses (3-4 cr.)			
LB	220	Calculus III	4
MTH	234	Multivariable Calculus	4
MTH	254H	Honors Multivariable Calculus	3
C. Complete ONE of the following sequences (3-7 cr.)			
(1) Sequence One (7 cr.)			
MTH	299	Transitions	4
MTH	309	Linear Algebra	3
(2) Sequence Two (3 cr.)			
MTH	317H	Advanced Linear Algebra	3
D. Complete ONE of the following courses (3 cr.)			
MTH	330	Higher Geometry	3
MTH	340	Ordinary Differential Equations I	3
MTH	347H	Advanced Ordinary Differential Equations	3
MTH	432	Axiomatic Geometry	3
*Students in teacher education must take MTH 330 or 432. Students not in teacher education must take MTH 340 or 347H			
E. Complete ONE of the following sequences			
(1) Sequence One (6 cr.)			
MTH	310	Abstract Algebra I and Number Theory	3
MTH	411	Abstract Algebra II	3*
*MTH 414, 417, 418H, or 481 may be substituted for MTH 411			
(2) Sequence Two (6 cr.)			
MTH	418H	Honors Algebra I	3
MTH	419H	Honors Algebra II	3
F. Complete ONE of the following sequences			
(1) Sequence One (6 cr.)			
MTH	320	Analysis I	3†
MTH	421	Analysis II	3*
†MTH 327H may be substituted for MTH 320 * MTH 425, 441, or 442 may be substituted for MTH 421			
(2) Sequence Two (6 cr.)			
MTH	327H	Honors Introduction to Analysis	3
MTH	429H	Honors Analysis II	3
G. Additional Math courses as needed to reach a total of 27 credits at the 300-400 level. Course approval needed from Mathematics department. At least 4 courses must be 400 level. (XX cr.)			
MTH	###	Mathematics (excludes MTH 415, 424, 443)	XX
*May not use MTH 415, 424, & 443 for this requirement *May only use one of MTH 309, 314, & 317H *Teacher education majors must take STT 430. *STT 430 or STT 441 may be used as <b>one of the 300 level</b> courses.			

### H. Foreign Language Requirement

Complete ALL of the following courses (21 cr.)

FL	101	Foreign Language I	3-4
FL	102	Foreign Language II	3-4

Foreign Language 1st year equivalency may be met through placement testing.

TE professional education sequence may be substituted for the foreign language proficiency requirement.

**IMPORTANT: These guidelines are presented for planning purposes only. Students MUST consult a department advisor for reliable and exact determination of individual's course requirements.**