

BACHELOR OF SCIENCE DEGREE PHYSICAL SCIENCE-INTERDEPARTMENTAL

COORDINATE MAJOR

(RECOMMENDED FOR SECONDARY EDUCATION ONLY)

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE COLLEGE OF NATURAL SCIENCE ADVISING OFFICE

(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.

†Summer 2013 to Summer 2017: LB 331, 333, and 336 will fulfill the IAH "B" university requirement (IAH 211 or higher). Please consult your LBC Academic Advisor for specific details for your program.

‡Summer 2013 to Summer 2017; LB 332, 334, and 335 will fulfill the ISS 300-level university requirement. Please consult your LBC Academic Advisor for specific details for your program.

Beginning Fall 2017; LB 321a, 322a, 323a, 324a, 325a, 326a and 327a will fulfill the IAH university requirement (IAH 211 or higher).

@ Beginning Fall 2017; LB 321b, 322b, 323b, 324b, 325b, 326b and 327b will fulfill the ISS 300-level university requirement.

Please contact your LBC Academic Advisor for specific details for your program. If you fulfilled the LB 331, 332, 333, 334, 335 or 336 requirement you do not need the new Fall 2017 courses.

Mathematics, Biological and Physical Sciences

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

(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, & 162 10
(3) CEM 151, 152, 161, & 162 10

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 (10-11 cr.)

LB 133 4
LB 321-327, 330-336, 355, 490E; ENG 473A; HST 425; SOC 368 7-8

Senior Seminar (4 cr.)

LB 492 4

Minimum number of credits required: 120

Minimum cumulative and major grade point average: 2.0

(3) MAJOR REQUIREMENTS

Complete ALL of the following courses (38 cr.)

CEM	251	Organic Chemistry I	3
CEM	252	Organic Chemistry II	3
CEM	255	Organic Chemistry Laboratory	2
CEM	262	Quantitative Analysis	3
CEM	383	Introductory Physical Chemistry I	3
LB	220	Calculus III	4 [^]
MTH	235	Differential Equations	3
PHY	215	Thermodynamics & Modern Physics	3
PHY	431	Optics I	3
PHY	440	Electronics	4
ISE	401	Science Laboratories for Secondary Schools (W)	4
PHY/ CEM	###	Additional elective in PHY or CEM as Approved by science education advisor	3

[^]MTH 234 can be substituted for LB 220

(4) ADDITIONAL REQUIREMENTS FOR TEACHER CERTIFICATION

Complete ALL of the following courses (21 cr.)

TE	150	Reflections on Learning	3
TE	250	Human Diversity, Power, and Opportunity in Social Institutions	3
TE	302	Learners and Learning in Context (W)	4
TE	407	Teaching of Subject Matter to Diverse Learners (W)	5
TE	408	Crafting Teaching Practice (W)	6

IMPORTANT: This advising guide is presented for planning purposes only. It is the student's responsibility for knowing and following University, college and departmental requirements as stated in the [Academic Programs Catalog](#).

The Academic Advisors will provide information and suggest others based on expressed interests. It is the student's responsibility for enrolling in classes and selecting the number of credits per semester for success. Appointments are made using the [Student Success Dashboard](#).

Students wishing to complete requirements for Teacher certification must obtain formal admission into the College of Education, and meet the State of Michigan requirements for teacher certification. Visit the [College of Education Teacher Certification](#).