# BACHELOR OF SCIENCE DEGREE
## PHYSICS
### COORDINATE MAJOR
For additional information, please contact the Department of Physics and Astronomy

## (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
- (3) CEM 151, 152, & 161 8

### Physics (8-10 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 & Mathematics courses also meet graduation requirements for major
Complete ALL of the following courses (29 cr.)

**LB 220** Calculus III 4*

**MTH 235** Differential Equations 3

**PHY 215** Thermodynamics and Modern Physics 3†

**PHY 321** Classical Mechanics I 3

**PHY 410** Thermal and Statistical Physics 3

**PHY 440** Electronics 4

**PHY 451** Advanced Laboratory 3

**PHY 471** Quantum Physics I 3

**PHY 481** Electricity and Magnetism I 3

*MTH 234 can be substituted for LB 220
†PHY 215B can be substituted for PHY 215

Complete TWO additional math courses, 300 or above (6 cr.)

**MTH 3XX+** Math 300 Level or above (May also use LB/PHY 415 Methods Theoretical Physics) 6-8

Complete ONE of the following groups of courses (4-6 cr.)

(a) Thesis cluster

**PHY 390** Physics Journal Seminar 1

**PHY 490** Senior Thesis 3

(b) Lecture course cluster

**PHY 491** Atomic, Molecular, and Condensed Matter Physics 3

**PHY 492** Nuclear and Elementary Particle Physics 3

The completion of PHY 390 & 490, or PHY 491 & 492, fulfills the Physics department’s capstone course requirement.

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