

# BACHELOR OF SCIENCE DEGREE

## STATISTICS

### COORDINATE MAJOR

FOR ADDITIONAL INFORMATION, PLEASE CONTACT THE [DEPARTMENT OF STATISTICS AND PROBABILITY](#)

#### (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 cr.)

Complete ONE of the following groups of courses  
 (1) LB 273, 274 8  
 (2) PHY 183 & 184 8  
 (3) PHY 231, 232, 251, & 252 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

\*Mathematics courses also meet graduation requirements for major

**(3) MAJOR REQUIREMENTS (19-23 cr.)**

Complete the following courses (7 cr.)			
STT	481	Issues in Statistical Practice	3
CSE	231	Introduction to Programming I	4

Complete ONE of the following courses (4 cr.)			
LB	220	Calculus III	4
MTH	234	Multivariable Calculus	4
MTH	254H	Honors Multivariable Calculus	4

Complete ONE of the following groups (4-7 cr.)			
Group A			
MTH	299	Transitions	4
MTH	309	Linear Algebra	3

OR			
Group B			
MTH	299	Transitions	4
MTH	314	Matrix Algebra with Applications	3

OR			
Group C			
MTH	317H	Honors Linear Algebra	4

Complete the following courses (9 cr.)			
STT	301	Computational Methods for Data Science	3
STT	441	Probability and Statistics I: Probability	3
OR			
STT	861	Theory of Probability and Statistics I	3
STT	442	Probability and Statistics II: Statistics	3
OR			
STT	862	Theory of Probability and Statistics II	3

Complete three of the following courses (9-10 cr.)			
EC	821A	Cross Section and Panel Data Econometrics I	3
EC	821B	Cross Section and Panel Data Econometrics II	3
EC	822A	Time Series Econometrics I	3
EC	822B	Time Series Econometrics II	3
STT	422	Statistics II	3
STT	455	Actuarial Models I	3
STT	456	Actuarial Models II	3
STT	459	Construction and Evaluation of Actuarial Models	3
STT	461	Computations in Probability and Statistics	3
STT	464	Statistics for Biologists	3
STT	465	Bayesian Statistical Methods	3
STT	801	Design of Experiments	3
STT	802	Statistical Computation	4
STT	814	Advanced Statistics for Biologists	3
STT	825	Sample Surveys	3
STT	843	Multivariate Analysis	3
STT	844	Time Series Analysis	3
STT	847	Analysis of Survival Data	3
STT	855	Statistical Genetics	3
STT	863	Statistical Methods I	3
STT	864	Statistical Methods II	3
STT	886	Stochastic Processes and Applications	3
STT	888	Stochastic Models in Finance	3

Not more than two courses may be chosen from STT 455, 456, or 459.

Elective chosen from any combination of the following, approved by the student's academic advisor (6 credits)

- A. Courses from last section not used to fulfill that requirement with the exception of STT 455, 456, or 459
- B. MTH 235 or any 300-level or higher CSE course
- C. CSE 232 or 260 or any 300-level or higher CSE course
- D. 300-400 level courses in an area of application of statistics and probability

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