



BS in STATISTICS: Applied Statistics and Analytics Emphasis (695234) MAP Sheet

Department of Statistics

For students entering the degree program during the 2009–2010 curricular year.

UNIVERSITY CORE AND GRADUATION REQUIREMENTS				PROGRAM REQUIREMENTS (52.0 total hours)																																																																																																																																																																																																													
UNIVERSITY CORE REQUIREMENTS (48.5 hours minimum)				No more than three hours of D credit is allowed in major courses.																																																																																																																																																																																																													
<table border="0"> <thead> <tr> <th>Requirements</th> <th>#Classes</th> <th>Hours</th> <th>Classes</th> </tr> </thead> <tbody> <tr> <td colspan="4">Doctrinal Foundation</td> </tr> <tr> <td>Book of Mormon</td> <td>2</td> <td>4.0</td> <td>Rel A 121/H & 122/H</td> </tr> <tr> <td>New Testament</td> <td>1</td> <td>2.0</td> <td>Rel A 211/H or 212/H</td> </tr> <tr> <td>Doctrine and Covenants</td> <td>1</td> <td>2.0</td> <td>Rel C 324/H or 325/H</td> </tr> <tr> <td colspan="4">The Individual and Society</td> </tr> <tr> <td>Wellness</td> <td>1 or 3</td> <td>1.5–2.0</td> <td>from approved list</td> </tr> <tr> <td>Citizenship</td> <td></td> <td></td> <td></td> </tr> <tr> <td> American Heritage</td> <td>1–2</td> <td>3–6.0</td> <td>from approved list</td> </tr> <tr> <td> Global & Cultural Awareness</td> <td>1</td> <td>3.0</td> <td>from approved list</td> </tr> <tr> <td colspan="4">Skills</td> </tr> <tr> <td>Effective Communication</td> <td></td> <td></td> <td></td> </tr> <tr> <td> First-Year Writing</td> <td>1</td> <td>3.0</td> <td>from approved list</td> </tr> <tr> <td> Adv Written & Oral Communication</td> <td>1</td> <td>3.0</td> <td>from approved list</td> </tr> <tr> <td>Quantitative Reasoning</td> <td>1</td> <td>4.0</td> <td>Math 112*</td> </tr> <tr> <td>Languages of Learning (Math or Language)</td> <td>1</td> <td>4.0</td> <td>Math 112*</td> </tr> <tr> <td colspan="4">Arts, Letters, and Sciences</td> </tr> <tr> <td>Civilization 1 and 2</td> <td>2</td> <td>6.0</td> <td>from approved list</td> </tr> <tr> <td>Arts</td> <td>1</td> <td>3.0</td> <td>from approved list</td> </tr> <tr> <td>Letters</td> <td>1</td> <td>3.0</td> <td>from approved list</td> </tr> <tr> <td>Scientific Principles & Reasoning</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Biological Science</td> <td>1–2</td> <td>3–6.0</td> <td>from approved list</td> </tr> <tr> <td> Physical Science</td> <td>1–2</td> <td>3–7.0</td> <td>from approved list</td> </tr> <tr> <td> Social Science</td> <td>1</td> <td>3.0</td> <td>Econ 110*</td> </tr> <tr> <td colspan="4">Core Enrichment: Electives</td> </tr> <tr> <td>Religion Electives</td> <td>3–4</td> <td>6.0</td> <td>from approved list</td> </tr> <tr> <td>Open Electives</td> <td>Variable</td> <td>Variable</td> <td>personal choice</td> </tr> </tbody> </table>				Requirements	#Classes	Hours	Classes	Doctrinal Foundation				Book of Mormon	2	4.0	Rel A 121/H & 122/H	New Testament	1	2.0	Rel A 211/H or 212/H	Doctrine and Covenants	1	2.0	Rel C 324/H or 325/H	The Individual and Society				Wellness	1 or 3	1.5–2.0	from approved list	Citizenship				American Heritage	1–2	3–6.0	from approved list	Global & Cultural Awareness	1	3.0	from approved list	Skills				Effective Communication				First-Year Writing	1	3.0	from approved list	Adv Written & Oral Communication	1	3.0	from approved list	Quantitative Reasoning	1	4.0	Math 112*	Languages of Learning (Math or Language)	1	4.0	Math 112*	Arts, Letters, and Sciences				Civilization 1 and 2	2	6.0	from approved list	Arts	1	3.0	from approved list	Letters	1	3.0	from approved list	Scientific Principles & Reasoning				Biological Science	1–2	3–6.0	from approved list	Physical Science	1–2	3–7.0	from approved list	Social Science	1	3.0	Econ 110*	Core Enrichment: Electives				Religion Electives	3–4	6.0	from approved list	Open Electives	Variable	Variable	personal choice	<p>Complete the following preparation core courses:</p> <table border="0"> <tr> <td>Math 112* Calculus 1</td> <td>4.0</td> </tr> <tr> <td>Math 113 Calculus 2</td> <td>4.0</td> </tr> </table> <p>Complete one course from the following:</p> <table border="0"> <tr> <td>Stat 221 Principles of Statistics</td> <td>3.0</td> </tr> <tr> <td>Stat 321 Elements of Mathematical Statistics</td> <td>3.0</td> </tr> <tr> <td>Stat 331 Introduction to Bayesian Statistics</td> <td>3.0</td> </tr> <tr> <td>Stat 332 Quality Improvement for Industry</td> <td>3.0</td> </tr> </table> <p>Note: Students who have passed the AP statistics exam or an introductory statistics course should not take Stat 221.</p> <p>Complete the following statistics core courses:</p> <table border="0"> <tr> <td>Stat 291 Teaching Elementary Stat in Lab Setting 1</td> <td>0.5</td> </tr> <tr> <td>Stat 292 Teaching Elementary Stat in Lab Setting 2</td> <td>0.5</td> </tr> <tr> <td>Stat 336 Statistical Methods 1</td> <td>6.0</td> </tr> <tr> <td>Stat 337 Statistical Methods 2</td> <td>3.0</td> </tr> </table> <p>Complete the following:</p> <table border="0"> <tr> <td>Econ 110 Economic Principles and Problems</td> <td>3.0</td> </tr> <tr> <td>Stat 124 SAS Certification 1</td> <td>1.0</td> </tr> <tr> <td>Stat 224 Statistical Computing 1</td> <td>2.0</td> </tr> <tr> <td>Stat 324 SAS Certification 2</td> <td>1.0</td> </tr> <tr> <td>Stat 424 Statistical Computing 2</td> <td>3.0</td> </tr> </table> <p>Complete one course from the following:</p> <table border="0"> <tr> <td>Stat 331 Introduction to Bayesian Statistics</td> <td>3.0</td> </tr> <tr> <td>Stat 421 Introduction to 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334 Methods of Survey Sampling</td> <td>3.0</td> </tr> <tr> <td>Stat 431 Experimental Design</td> <td>3.0</td> </tr> <tr> <td>Stat 433 Utah Colleges Exit Poll Design</td> <td>2.0</td> </tr> <tr> <td>Stat 434 Advanced Sampling</td> <td>3.0</td> </tr> <tr> <td>Stat 435 Nonparametric Statistical Methods</td> <td>3.0</td> </tr> <tr> <td>Stat 441 Statistical Theory 1</td> <td>3.0</td> </tr> <tr> <td>Stat 442 Statistical Theory 2</td> <td>3.0</td> </tr> <tr> <td>Stat 462 Quality Control and Industrial Statistics</td> <td>3.0</td> </tr> <tr> <td>Stat 466 Introduction to Reliability</td> <td>3.0</td> </tr> <tr> <td>Stat 469 Applied Time Series and Forecasting</td> <td>3.0</td> </tr> <tr> <td>Stat 470 Statistical Theory for Actuaries</td> <td>3.0</td> </tr> <tr> <td>Stat 474 Life Contingencies 1</td> <td>3.0</td> </tr> <tr> <td>Stat 475 Life Contingencies 2</td> <td>3.0</td> </tr> <tr> <td>Stat 496R Academic Internship: Statistics</td> <td>9.0V</td> </tr> <tr> <td>Stat 497R Introduction to 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***THESE CLASSES FILL BOTH UNIVERSITY CORE AND PROGRAM REQUIREMENTS (7.0 hours overlap)**

FOR UNIVERSITY CORE OR PROGRAM QUESTIONS CONTACT THE ADVISEMENT CENTER

Physical and Mathematical Sciences College Advisement Center

N-179 ESC

Brigham Young University, Provo, UT 84602

Telephone: (801) 422-6270

FACULTY ADVISORS:

Scott D. Grimshaw

223C TMCB

Brigham Young University, Provo, UT 84602

Telephone: (801) 422-6251

David G. Whiting

230B TMCB

Brigham Young University, Provo, UT 84602

Telephone: (801) 422-4193

BS in STATISTICS: Applied Statistics and Analytics Emphasis (695234)
2009–2010

Suggested Sequence of Courses:

FRESHMAN YEAR

1st Semester

1 st Year Writing	3.0
Econ 110* (FWSpSu)	3.0
Math 112* (FWSpSu)	4.0
Rel A 121 (FWSpSu)	2.0
Bio 100 (Biology Sci)	3.0
Total Hours	15.0

2nd Semester

A Htg 100	3.0
or Plsc 110	(3.0)
or Hist 220	(3.0)
Math 113 (FWSpSu)	4.0
Stat 221 (FWSpSu)	3.0
or Stat 321 (FWSu)	(3.0)
or Stat 331 (W)	(3.0)
or Stat 332 (FWSp)	(3.0)
Rel A 122 (FWSpSu)	2.0
Phy S 100 (Phy Sci)	3.0
Total Hours	15.0

SOPHOMORE YEAR

3rd Semester

Stat 124 (FW) 1 st block	1.0
Stat 224 (FW)	2.0
Stat 291 (FWSpSu)	0.5
Stat 324 (FW)	1.0
Stat 336 (FW)	6.0
Rel C 324/325	2.0
Civilization 1	3.0
Total Hours	15.5

4th Semester

Stat 292 (FWSp)	0.5
Stat 337 (FW)	3.0
Rel A 211/212	2.0
Civilization 2	3.0
Electives	6.0
Total Hours	14.5

JUNIOR YEAR

5th Semester

Bus M 300	3.0
Stat 424 (W)	3.0
Arts	3.0
HEPE 129 (Wellness)	2.0
Electives	3.0
Total Hours	14.0

6th Semester

Stat 331 or 421 (W)	3.0
Stat Elective	3.0
Religion Elective	2.0
Engl 316 (FWSpSu)	3.0
or M Com 320 (Adv Writing)	(3.0)
Electives	3.0
Total Hours	14.0

Summer Internship

Stat 496R (recommended stat elective)	6.0
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SENIOR YEAR

7th Semester

Stat Elective	3.0
Religion Elective	2.0
Global Cultural Awareness	3.0
Electives	5.0
Total Hours	13.0

8th Semester

Stat Elective	3.0
Stat Elective	3.0
Religion Elective	2.0
Letters	3.0
Electives	3.0
Total Hours	14.0

THE DISCIPLINE:

Statisticians help determine the sampling and data collection methods, monitor the execution of the study and the processing of data, and advise on the strengths and limitations of the results. They must understand the nature of uncertainties and be able to draw conclusions in the context of particular statistical applications.

CAREER OPPORTUNITIES:

The curriculum and degrees offered through the Department of Statistics are designed to equip students with decision-making skills for careers as professional statisticians in industrial organizations, government agencies, insurance companies, pharmaceutical companies, universities, and research institutes. The technical tools statisticians acquire are useful in many areas, and for this reason a statistics degree is also excellent preparation for professional programs in business administration, medicine, law, and public administration.

For more information on careers in your major, please refer to *From Major to Career*, a publication which is located in all college advisement centers.

Note 1: The sequence of courses suggested may not fit the circumstances of every student. Students should contact their college advisement center for help in outlining an efficient schedule.

Note 2: Students are encouraged to complete an average of 15 credit hours each semester or 30 credit hours each year, which could include spring and/or summer terms. Taking fewer credits substantially increases the cost and the number of semesters to graduate.

Department of Statistics
230 TMCB
Brigham Young University, Provo, UT 84602
Telephone: (801) 422-4505