

Program Change Request

New Program Proposal

Date Submitted: 09/26/18 3:51 pm

Viewing: **BS/MS-STAT/STAT-SSA : Statistics - 5-Year Bachelor of Science/Master of Science in Statistics**

Last edit: 11/08/18 8:31 pm

Changes proposed by: twehrly

Contact(s)

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Thomas Wehrly	twehrly@stat.tamu.edu	979-845-1359
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Academic level	Undergraduate-Graduate
Effective Term	2019-2020
Department	Statistics
Department 2	Statistics
College	Science
College 2	Science
Program type	Combination
Degree designation	BS/MS - Bachelor of Science/Master of Science
With a major in	Statistics/Statistics (STAT/STAT)
Associated Program	Not Applicable
With a concentration in	Science MS 3+2 Program (SSA)
Catalog Program Title	Statistics - 5-Year Bachelor of Science/Master of Science in Statistics
CIP and Fund code	27050100

Rationale for Proposal

This program will enable well-qualified students to complete the requirements for a BS in Statistics and an MS in Statistics within five years. We believe that this program will be attractive to some of the best students coming out of high school and will enable our better students to enter our Master's program during their fourth year at TAMU.

Program hours	156
Is this program eligible for financial aid?	Yes

Catalog Program Requirements

In Workflow

1. **STAT Department Head**
2. **Curricular Services Review**
3. **SC Committee Preparer UG**
4. **SC Committee Preparer GR**
5. **SC Committee Chair UG**
6. **SC Committee Chair GR**
7. **SC College Dean UG**
8. **SC College Dean GR**
9. **UCC & GC Preparers**
-UCC Preparer
-GC Preparer
10. **UCC & GC Chairs**
-UCC Chair
-GC Chair
11. **Faculty Senate Preparer**
12. Faculty Senate
13. Provost II
14. President
15. Curricular Services

Approval Path

1. 09/26/18 3:55 pm
Michael Longnecker (longneck): Approved for STAT Department Head
2. 10/04/18 8:49 am
Angel Mario Carrizales (carri1214): Approved for Curricular Services Review
3. 10/05/18 2:24 pm
Sara Thigpin (sarathigpin): Approved for SC Committee Preparer UG
4. 10/05/18 3:04 pm
Kristy Vela (kdvela): Approved for SC Committee Preparer GR
5. 10/05/18 3:12 pm
Lucas Macri (lmacri): Approved for SC Committee Chair UG
6. 10/06/18 2:54 pm
Mark J. Zoran (mjzoran): Approved for SC Committee Chair GR
7. 10/08/18 8:39 am
Lucas Macri (lmacri): Approved for SC College Dean UG
8. 10/08/18 11:23 am
Mark J. Zoran

(mjzoran): Approved for
 SC College Dean GR
 9. 10/22/18 3:54 pm
 Sandra Williams
 (sandra-williams):
 Approved for UCC & GC
 Preparers
 10. 11/05/18 4:13 pm
 Sandra Williams
 (sandra-williams):
 Approved for UCC & GC
 Chairs

The Fast Track program enables a Statistics major to earn both a bachelor's degree (120 undergraduate credit hours including 6 dual credit graduate hours) and a master's degree (36 credit hours including the 6 dual credit graduate hours) in Statistics within a period of five years after entering Texas A&M. Students can complete the required credit hours for each degree without diminishing scope or quality of work. The scheduling of the graduate level courses is flexible since many of the MS electives are offered during the summer. A student completing this program will be prepared for employment as a senior statistical analyst or to continue to a Ph.D. program in statistics or a related field.

Students interested in this program will apply during the fall of their junior year and, if admitted, begin taking masters-level courses in the fall of their senior year with an undergraduate classification. Students are reclassified as degree seeking master's students after completing 96 credit hours, typically in the following semester. These credit hours must include all specific course prerequisites for a baccalaureate degree in Statistics, as well as the courses required by the College of Science and by Texas A&M University for an undergraduate degree.

The following is a suggested schedule that includes the required courses for the combined BS/MS in Statistics. It is recognized that many students will change the sequence and number of courses taken in any semester. Deviations from the prescribed course sequence, however, should be made with care to ensure that prerequisites for all courses are met.

Plan of Study Grid

First Year

		Semester Credit Hours
Fall		
ENGL 104	Composition and Rhetoric	3
MATH 171	Analytic Geometry and Calculus	4
STAT 182	Foundations of Statistics	1
American history		3
Science elective 1		4
	Semester Credit Hours	15

Spring

MATH 172	Calculus	4
American history		3
Computer science elective 2		4
Science elective 1		4
	Semester Credit Hours	15

Second Year

Fall		
MATH 221	Several Variable Calculus	4
POLS 206	American National Government	3
STAT 211	Principles of Statistics I	3
Communication requirement 3		3
Science elective 1		3
	Semester Credit Hours	16

Spring

MATH 304	Linear Algebra	3
or MATH 323	or Linear Algebra	
POLS 207	State and Local Government	3
STAT 212	Principles of Statistics II	3
Computer science elective 2		4
Elective hours 4		3
	Semester Credit Hours	16

Third Year

Fall		
STAT 404	Statistical Computing	3
STAT 414	Mathematical Statistics I	3
Mathematics elective 5		3
Outside specialization elective 6		3
Elective hours 4		3
	Semester Credit Hours	15

Spring

STAT 408	Introduction to Linear Models	3
STAT 415	Mathematical Statistics II	3
Outside specialization elective	6	3
Elective hours	4	6
Semester Credit Hours		15
Fourth Year		
Fall		
STAT 406	Design and Analysis of Experiments	3
STAT 641	The Methods of Statistics I	7
Mathematics or Statistics elective	5	3
Outside specialization elective	6	3
Elective hours	4	3
Semester Credit Hours		15
Spring		
STAT 482	Statistics Capstone	3
STAT 642	The Methods of Statistics II	7
Outside specialization elective	6	3
Elective hours	4	4
Semester Credit Hours		13
Fifth Year		
Fall		
Graduate coursework	8	18
Semester Credit Hours		18
Spring		
Graduate coursework	8	18
Semester Credit Hours		18
Total Semester Credit Hours		156

1Two lower-level science courses are to be selected from [ASTR 111](#), [BIOL 111](#), [BIOL 112](#), [CHEM 119](#), [CHEM 120](#), [PHYS 207/PHYS 227](#), [PHYS 206/PHYS 226](#). A third science course is to be selected from any course satisfying the life and physical sciences requirement for the University Core Curriculum.

2Select 8 hours from [CSCE 110](#), [CSCE 111](#), [CSCE 121](#), or [CSCE 206](#).

3Select 3 hours from [COMM 203](#), [COMM 205](#), or [COMM 243](#), which fulfills the communication requirement for the University Core Curriculum.

4Three elective hours must be chosen from the approved University Core Curriculum list for language, philosophy and culture, three elective hours must be chosen from the approved University Core Curriculum list for creative arts, and three elective hours must be chosen from the approved University Core Curriculum list for social and behavior sciences. In addition, 3 hours must be in the area of cultural discourse (CD) and 3 hours of courses must be in the area of international and cultural diversity (ICD). These may be in addition to University Core Curriculum courses, or if a course in this category satisfies an area of the Core, it can be used to meet both requirements.

5The student must take a total of at least 6 hours of mathematics and statistics elective courses. Students must take at least one course from the following list of mathematics courses: [MATH 220](#), [MATH 302](#), [MATH 308](#), [MATH 409](#), [MATH 410](#), [MATH 417](#) or [MATH 437](#), [MATH 442](#), [MATH 446](#), [MATH 447](#), [MATH 469](#), [ISEN 320](#), [ISEN 340](#), [ISEN 355](#). The second elective course can be selected from the previously listed mathematics courses or from the following statistics courses: [STAT 407](#), [STAT 426](#), [STAT 436](#), [STAT 438](#), [STAT 445](#), [STAT 446](#), [STAT 459](#), [STAT 485](#), [STAT 489](#), [STAT 491](#), [ISEN 350](#).

6Students must take 12 hours in an outside specialization area upon approval by a departmental advisor. At least 6 hours must be upper level hours.

7Students must take [STAT 641](#) and [STAT 642](#). These 6 hours will be used towards both the BS and MS degree in Statistics.

8The overall program hours (156 hours) includes 36 hours for a non-thesis option or 32 hours for a thesis option (up to six of which are STAT 691). [STAT 641](#) and [STAT 642](#) may double count toward both degrees. The remaining graduate hours must be taken from 600 level STAT courses not including [STAT 601](#), [STAT 651](#), [STAT 652](#), or [STAT 658](#). Students are required to take one semester hour of [STAT 681](#) and two semester hours of [STAT 684](#). For additional information concerning this and other requirements of the master's program including the Master's diagnostic examination, reference <https://www.stat.tamu.edu/ms-statistics>.

Students will not be permitted to receive credit for both the 400- and 600-level versions of certain courses because the content and learning outcomes are too similar (e.g. [STAT 404/STAT 604](#), [STAT 408/STAT 608](#), [STAT 407/STAT 607](#), [STAT 426/STAT 626](#), [STAT 436/STAT 636](#), [STAT 438/STAT 638](#), [STAT 445/STAT 645](#), [STAT 446/STAT 646](#), [STAT 459/STAT 659](#)).

*If a grade of D or F is earned in any of the following courses, [MATH 151/MATH 171](#), [MATH 152/MATH 172](#), [MATH 221/MATH 251/MATH 253](#), [MATH 220](#), [MATH 304/MATH 323](#), [STAT 211](#), or [STAT 212](#), this course must be immediately retaken and a grade of C or better earned. The department will allow at most two D's in upper-level (325-499) courses. If a third D is earned, one of the three courses in which a D was earned must be retaken and a grade of C or better earned.

Additional information

Required Proposal Forms [Degree-Evaluations-Combination-Program STAT.docx](#)

Reviewer Comments **Angel Mario Carrizales (carri1214) (10/04/18 8:40 am)**: Edits made to the plan of study grid to conform to catalog style guidelines.
Sandra Williams (sandra-williams) (11/05/18 4:13 pm): UCC approved November 2018.

Key: 904