



OFFICE OF THE PRESIDENT

June 17, 2010

Dean Ana Mari Cauce  
College of Arts and Sciences  
Box 353765

Dear Ana Mari:

Based on the recommendation of its Subcommittee on Admissions and Programs, the Faculty Council on Academic Standards has recommended approval of the revised admission, program, and continuation policy requirements for the Bachelor of Science degree in Statistics; and revised program requirements for the minor in Statistics. A copy of the changes is attached.

I am writing to inform you that the Department of Statistics is authorized to specify these requirements beginning summer quarter 2010.

The new requirements should be incorporated in printed statements and in individual department websites as soon as possible. The *General Catalog* website will be updated accordingly by the Registrar's Office.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Mark".

Mark A. Emmert  
President

Enclosure

cc: Ms. Mee-Ling Hon (with enclosure)  
Mr. Robert Corbett (with enclosure)  
Dr. Deborah H. Wiegand (with enclosure)  
Mr. Todd Mildon, J.D. (with enclosure STAT-20100107)

11-7-10

JAN 29 2010



UNIVERSITY OF WASHINGTON

# CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

After college/school/campus review, send a signed original and 8 copies to the Curriculum Office/FCAS, Box 355850.

For information about when and how to use this form: <http://depts.washington.edu/uwcr/1503instructions.pdf>

OFFICE USE ONLY
Control #
STAT-2010-0107

<b>College/Campus</b> Arts and Sciences/ Seattle	<b>Department/Unit</b> Statistics	<b>Date</b> Jan 7, 2010
<b>New Programs</b> <input type="checkbox"/> Leading to a Bachelor of _____ in _____ degree. <input type="checkbox"/> Leading to a Bachelor of _____ degree with a major in _____. <input type="checkbox"/> Leading to a _____ Option within the existing major in _____. <input type="checkbox"/> Leading to a minor in _____.		
<b>Changes to Existing Programs</b> <input type="checkbox"/> New Admission Requirements for the Major in _____ within the Bachelor of _____. <input checked="" type="checkbox"/> Revised Admission Requirements for the Major in <u>Statistics</u> within the Bachelor of <u>Science</u> . <input checked="" type="checkbox"/> Revised Program Requirements for the Major in <u>Statistics</u> within the Bachelor of <u>Science</u> . <input type="checkbox"/> Revised Requirements for the Option in _____ within the major in _____. <input checked="" type="checkbox"/> Revised Requirements for the Minor in <u>Statistics</u> .		
<b>Other Changes</b> <input type="checkbox"/> Change name of program from _____ to _____. <input checked="" type="checkbox"/> New or Revised Continuation Policy for <u>Statistics</u> . <input type="checkbox"/> Eliminate program in _____.		
Proposed Effective Date: <b>Quarter:</b> <input type="checkbox"/> Autumn <input type="checkbox"/> Winter <input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Summer <b>Year:</b> <u>20</u> <u>10</u>		
Contact Person: June Morita	Phone: <u>6-6282</u> Email: <u>june@stat.washington.edu</u>	Box: 354322
<b>EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE</b> For new program, please include any relevant supporting documentation such as student learning outcomes, projected enrollments, letters of support and departmental handouts. (Use additional pages if necessary). <p>We are modifying our course offerings to consolidate the core theory course into the coherent sequence STAT 340, 341, 342 (The new course STAT 340 has already been UW approved, and was first offered in Autumn 2009. STAT 341 and 342 have been part of this Statistics major requirement for many years).</p> <p>Thus in three quarters of a single year (rather than the current four quarters that our prerequisites spread over two years), the Statistics major will be ready to take applied requirements and electives (as will the students experimenting with statistics while searching for a major), and students seeking to learn statistics in conjunction with a different major will have a useful background. This will make it far easier to complete a Statistics major in four years, and we anticipate that this will make the major more attractive. It will also make the key Stat 340, 341, 342 sequence far more attractive to a student outside Statistics.</p> <p>Minor adjustments have also been made in the computing, mathematics, and Natural World Areas of Knowledge requirements. These reflect changes in available courses since our last submission. They are also designed to streamline and clarify (especially so for the Natural World requirement). Frankly, we are unaware of when our overall admissions GPA requirement was changed from 2.5 to 2.8, and we want it reset to 2.5.</p>		
<b>OTHER DEPARTMENTS AFFECTED</b> List all departments/units/ or co-accredited programs affected by your new program or changes to your existing program and acquire the signature of the chair/director of each department/unit listed. Attach additional page(s) if necessary. *See online instructions.		
Department/Unit:	Chair/Program Director:	Date:
Department/Unit:	Chair/Program Director:	Date:

**CATALOG COPY**

Catalog Copy as currently written. Include only sections/paragraphs that would be changed if your request is approved. Please cross out or otherwise highlight any deletions.


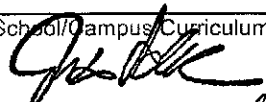
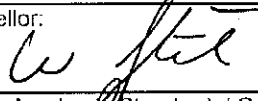
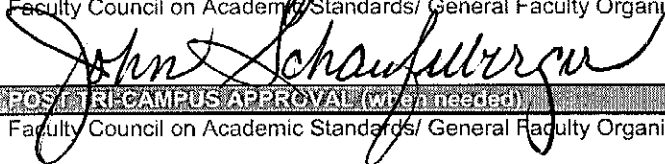
See attachment 1 (Attachment 3 contains the current catalog listing without the changes).

**PROPOSED CATALOG COPY**

Reflecting requested changes (Include exact wording as you wish it to be shown in the printed catalog. Please underline or otherwise highlight any additions. If needed, attach a separate, expanded version of the changes that might appear in department publications).  
**Please note:** all copy will be edited to reflect uniform style in the General Catalog.

See attachment 2.

**APPROVALS**

Chair/Program Director: 	Date: 1/5/10
College/School/Campus Curriculum Committee: 	Date: 1/27/10
Dean/Vice Chancellor: 	Date: 1/27/10
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: 	Date: 6/11/2010
<b>POST-TRICAMPUS APPROVAL (when needed)</b>	
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair:	Date:

## Current:

### Bachelor of Science

*Suggested First-and Second-Year College Courses:* CSE 142; ~~CSE 143~~; MATH 307, MATH 308, ~~MATH 309~~, MATH 327, MATH 328. Additional courses in the sciences and quantitative methods. It is recommended that the student declare the major only after completion of STAT 341.

### Department Admission Requirements

4. Completion of 45 credits, including MATH 124, MATH 125, MATH 126; ~~minimum 8 credits from one of the following groups of courses: ASTR 101, ASTR 102, ASTR 190, ASTR 201, ASTR 301; CHEM 120, CHEM 142, CHEM 145, CHEM 152, CHEM 155; GENOME 351, GENOME 372, GENOME 453, GENOME 455; PHYS 114, PHYS 115, PHYS 116, PHYS 117, PHYS 118, PHYS 119, PHYS 121, PHYS 122, PHYS 123, PHYS 210, PHYS 211, PHYS 212; and one course from STAT 220, STAT 311, STAT 390, or an approved substitute. The 8 credits must be from within the same group (e.g., CHEM 142, CHEM 152).~~
2. Minimum grade of 2.0 in each of the ~~above-listed~~ prerequisites and a cumulative GPA of ~~2.80~~ for these courses.
3. Students wishing to declare a statistics major must apply by contacting the adviser after prerequisites are completed and graded.

### Major Requirements

Minimum 74 credits, as follows:

1. ~~MATH 124, MATH 125, MATH 126; MATH 307, MATH 308, MATH 309; MATH 327, MATH 328 (the Honors sequences in calculus may replace the corresponding regular sequences)~~
2. ~~CSE 142, CSE 143~~
3. ~~One course from STAT 220, STAT 311, STAT 390, or approved substitute (STAT 311 recommended)~~
4. ~~STAT 394, STAT 395, followed by STAT 341, STAT 342, STAT 421, STAT 423.~~
5. *Electives (at least 9 credits):* ~~one upper-division course in statistics, mathematics, or computer science, plus two upper-division courses in any discipline (including but not limited to statistics, mathematics, and computer science), all subject to prior approval by the Statistics adviser. The first elective defines the flavor of the major within these interrelated mathematical fields, and the other two give a chance to broaden the basis of the major into a special-interest area, chosen from~~

~~the full range of upper division courses offered at the University. However, three Department of Statistics courses is the most common choice. Any other choice must fit into an approved coherent plan.~~

6. Minimum grade of 2.0 in all courses used to satisfy major requirements.
7. Minimum cumulative GPA of 2.50 for all courses used to satisfy major requirements.

## **Minor**

*Minor Requirements:* 38 credits, as follows:

1. ~~MATH 124, MATH 125, MATH 126~~
2. STAT 311 or approved substitute
3. ~~STAT 394, followed by~~ STAT 341, STAT 342, STAT 421 (or STAT 423)
4. One elective from the following choices: ~~STAT 395 (strongly recommended),~~ STAT 396, STAT 403, STAT 423, STAT 427, STAT 428, CSE 142, MATH 307, MATH 308, AMATH 351, AMATH 353.
5. Minimum grade of 2.0 in each course used to satisfy minor requirements.

## Revised Proposed

### Bachelor of Science

*Suggested First-and Second-Year College Courses:* CSE 142; MATH 300, MATH 307, MATH 308, MATH 327, MATH 328, STAT 311 and STAT 302. Additional courses in the sciences and quantitative methods add strength to this major. MATH 327 is required to declare a Statistics major. Declaration of the Statistics major is required to obtain priority status in registration for STAT 340 and STAT 341.

### Department Admission Requirements

1. **Mathematics:** Completion of 45 credits, including MATH 124, MATH 125, MATH 126; MATH 300; MATH 327.
2. **Statistics:** One of STAT 311 (highly recommended), STAT 390, or an approved substitute (which might include STAT 220, STAT 221 or STAT 301).
3. Students must have a plan for meeting the College of Arts and Sciences requirement of 20 credits in the Natural World Area of Knowledge as defined in the General Catalog of the University.
4. **GPA:** Minimum grade of 2.0 in each of the courses used for the prerequisites listed above in 1, 2, and 3; and a cumulative GPA of 2.50 for these courses.
5. Students wishing to declare a statistics major must apply by contacting the adviser after prerequisites are completed and graded.

### Major Requirements

Minimum 70 credits, as follows:

1. **Mathematics (30 credits):** either MATH 124, MATH 125, MATH 126, MATH 300, MATH 307, MATH 308, MATH 327, and MATH 328 or the honors sequence MATH 134, MATH 135, MATH 136, MATH 334, MATH 335, and MATH 336.
2. **Computing (6 credits):** CSE 142; either STAT 302 (recommended), CSE 143, or an approved substitute.
3. **Statistics (24-25 credits):** STAT 311 (highly recommend), STAT 390, or an approved substitute (which might include STAT 220, STAT 221 or STAT 301); either STAT 340 (highly recommend) or STAT/MATH 394 and STAT/MATH 395; STAT 341, STAT 342, STAT 421, STAT 423. (Note that STAT 342 is required for enrollment in STAT 421 or STAT 423 by a Statistics major; STAT 390 is not sufficient.)

4. **Electives (at least 3 courses with at least 9 credits): All elective choices require prior approval by the Statistics Undergraduate Advisor.**
5. Minimum grade of 2.0 in all courses used to satisfy major requirements.
6. Minimum cumulative GPA of 2.50 for all courses used to satisfy major requirements.

A “Majors Factsheet” is available from the Statistics Department.

## **Minor**

Minor Requirements: **30** credits, as follows:

1. MATH 126 or MATH 136
2. STAT 311 or approved substitute
3. STAT 340, STAT 341, STAT 342; either STAT 421 or STAT 423.
4. One elective from the following choices: STAT 302, STAT 403, STAT 423, STAT 427, STAT 428, CSE 142, MATH 307, MATH 308, AMATH 351, AMATH 353, or an advisor approved substitute.
5. Minimum grade of 2.0 in each course used to satisfy minor requirements.

*Suggested*

## **Continuation Policy for the Bachelor of Science degree program in the Department of Statistics**

This document clarifies what constitutes satisfactory progress towards degree for undergraduate students in the Bachelor of Science degree program within the Department of Statistics. While the University has regulations governing scholastic eligibility for continuance<sup>1</sup>, the Department of Statistics seeks additional requirements in order to make the best use of the limited facilities and resources available and to provide reasonable assurance for academic success. The following will apply to all students in the Bachelor of Science degree program in Statistics.

### **General Expectations of Satisfactory Progress:**

1. **Students are expected to make satisfactory progress towards the attainment of the degree.** Under normal circumstances, an a Statistics major attending full-time would be considered making satisfactory progress if he/she completes all major prerequisites by the end of the Sophomore year (within 90 cumulative units) and completes the major requirements (core courses, major electives, and capstone) during Junior and Senior years. Lack of academic progress may be evidenced by low scholarship as well as excessive course repeats, course drops, or University withdrawals and cancellations.
2. **Students must maintain a minimum quarterly cumulative GPA of 2.5 in major requirements, with a minimum grade of 2.0 or above in each Statistics class used to meet major requirements** (e.g., core courses, major electives, and capstone). Courses used to satisfy major requirements cannot be taken on a satisfactory/non-satisfactory basis.
3. **Students must maintain a minimum cumulative GPA of 2.0, and thereby avoid appearing on the University's Low Scholarship list<sup>2</sup>.**

### **Conditions Warranting Recommendation to Alter a Student's Standing:**

The Statistics department will review the performance of undergraduate students after each quarter. If a student fails to meet the general expectations of satisfactory progress outlined above in any quarter in the program, the following actions will be invoked.

Students will be notified of probation or dismissal from the major as soon as practicable after review of the previous quarter's grade reports. Failure to meet one or more of the general expectations of satisfactory progress may also result in the following actions.

#### **Probation for the Major**

If at the end of any quarter, the student fails to meet the general expectations of satisfactory progress, the student will be placed on probation. Once on probation, the student must achieve a quarterly GPA higher than 2.50 in the following quarter. If any single grade for a course required for the major is below 2.0, the student is required to meet with an adviser to discuss any difficulties impacting



the student's academic performance and to resolve problems and develop an individualized educational plan to avoid dismissal from the major.

### **Dismissal from the Major**

The student can not be on probation for two consecutive quarters and will be dismissed from the Statistics major if, while on probation, the student fails to meet the minimum quarterly cumulative GPA of 2.50 the following quarter, fails to achieve a minimum grade of a 2.5 in any repeated course required for the major (if the course was an elective a minimum grade of 2.5 in alternative elective is acceptable), or fails to meet one or more of the general expectations of satisfactory progress. The student will be notified in writing of the change in major status, and will re-coded as a pre-major or extended pre-major.

### **Appeal Procedures**

A student who has been placed on probation or has been dismissed from the major and believes that some facts in the student's documentation have been overlooked or misinterpreted may request reconsideration of the probation or dismissal from the major by writing a letter to the department. Included in the letter should be any additional information in support of the student or any other information that the student believes is relevant. In general, appeals to alter the student's status without evidence of new or additional information will not be considered. The appeal must be made within 30 days of the notification of placement on probation or dismissal from the major and will receive a response from the Statistics department within 30 days from response of the student's appeal.

### **Footnotes**

1. Available on the web are the University's Satisfactory Progress and Low Scholarship policies. ↵
2. Item 6 comes from the University policy on Low Scholarship. ↵

## Jennifer A. Payne

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**From:** Galen R. Shorack [galen@stat.washington.edu]  
**Sent:** Thursday, May 27, 2010 3:55 PM  
**To:** uwcr; Galen Shorack; June Morita; Mee Ling Hon  
**Subject:** Continuation Policy and Changes in the Major Requirements for a Bachelors in Statistics

Hi Jennifer,  
Yes, we in Statistics do accept the latest version of the continuation policy you sent to us on 3/24/10.  
Attached, you will find an updated version of our requested changes in the requirements for the Statistics Major.  
We think of them as minor changes.  
We hope you will agree, and that these can also be approved this Spring.  
(My phone number is 543-1182, and I will be available to highlight further my explanation below as to why I think these are minor changes---if you'd like.)

RELATIVE to the changes we recently requested in the Requirements for the Statistics Major :

.....These changes are contained in your 2/2/10 e-mail addressed to June Morita and Mee Ling Hong.

.....One update is included in your 2/18/10 e-mail addressed to Galen Shorack and June Morita.

.....

We are more informed now, as our first year of teaching the new course Stat340-341-342 is drawing to a close, and (importantly) as students are also beginning to register for Stat 340 for next Autumn Quarter.

Demand for Stat 340 for next Autumn Quarter is so high that we had to give priority to Statistics majors (and Statistics minors and ACMS majors using the Statistics option). We believe/hope that this is effected by the fact that STAT 340-341-342 now corresponds to a typical one year course in Statistics at most major universities.

(Previously STAT/MATH 394-395 and STAT 341-2 was required; this was an historical artifact of the situation at the time the Statistics Department was created in 1979.

Requiring 4 quarters instead of 3 quarters for one "sequence" has proved a hard pill for many students.

The current 340-341-342 possibility seems to have increased the demand---as we believed/hoped it would.) So, importantly, (#1) we must now be sure that we only get students who are truly mathematically prepared for this course.

This heavy demand for 340 also necessitates an important new change in our requirements for Admission to the Statistics Major.

Previously, our handouts and requirements encouraged potential majors to take the substantial course STAT 341 before declaring the major, as many did not otherwise realize how much math was actually required for a Statistics Major.

Now, the increased demand for STAT 340 for next year means that (#2) students cannot enroll in STAT 340 unless they have officially declared themselves as Statistics Majors.

How do we propose to deal with (#1) and (#2) above? That is, what added change are we now requesting?

The attached update of our proposed changes in the requirements for the Statistics Major asks that Math 300 and Math 327 now be added to the Requirements for Admission (to the Statistics Major), and we are also submitting forms that request the addition of MATH 327 to the prerequisites for STAT 340.

These two math course have ALWAYS been part of the Graduation Requirements, and our departmental handouts have always encouraged that they be taken prior to taking both probability (which is the main subject of the recently created STAT 340) and STAT 341. We now seek to make this a requirement. (The previous sentence explains why we regard this change as minor.) To make this relationship clear to students, the final sentence under "Suggested First and Second Year College Courses"

in our previous submission has now been changed in our current request to read:

"MATH 327 is required to declare a Statistics major.  
Declaration of the Statistics major is required to obtain priority status in registration for the key courses STAT 340 and STAT 341."

ADDITIONAL MINOR CHANGES that also accompany the above request :

First : We really want students to take STAT 311 (or, possibly STAT 390), as their introductory statistics course.

We are willing to allow STAT 220, STAT 221, or STAT 301, but we want to discourage use of these alternatives.

Department Admission Requirement #2 and Major Requirement #3 have been rewritten to this end.

Second : Statistics Majors should finish the theory sequence STAT 340-341-342 prior to enrolling

in the capstone (applied) courses STAT 421 and STAT 423, as has always been reflected in our departmental handouts and in our individual advising.

Self selected graduate students are allowed to take STAT 421 and/or STAT 423 based on the alternative prerequisite of STAT/MATH 390; indeed, this prerequisite was added with such graduate students in mind, and this has been a success.

Some Statistics Majors have been misusing this shortcut to the detriment of their majors and to the quality of these two courses.

To this end, Major Requirement #3 has been altered to require STAT 342 as a prerequisite for Statistics Majors to take STAT 421 or STAT 423.

Galen

cc1 : Is there is anythig you can do to "fast track" our formal request to the change the prerequisites for STAT 340 by adding Math 327.

(My "grounds" for making such a hopeful request is that we've just finished offering the 340-1-2 sequence for the first time, so that now we better understand what we need.) We will also submit a form to make the prerequisites for Stat341 broader by adding the possibility STAT/MATH 394-395

to the currently listed possibility of STAT 340, or permission.

Departmental Adviser Mee Ling tells me this one is sure be approved very quickly.

cc2 : I want to talk to you at some point about our version of the Natural World requirement.

However, I propose to let such a formal request wait, so as not to effect the chances of approval for things detailed above.

Still, I want to warn you that we will return to this topic---most likely, in the autumn. I will consult with both you and David Sayrs as I seek to investigate and formalize such a change.

My phone number is 543-1182, in case you want to discuss this now.