



OFFICE OF THE PRESIDENT

May 23, 2013

Dean Robert C. Stacey  
College of Arts and Sciences  
Box 353765

Dear Bob:

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

I am writing to inform you that the Department of Statistics is authorized to specify these requirements beginning autumn quarter 2013.

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 "Michael K. Young".

Michael K. Young  
President

Enclosure

cc: Dr. Galen Shorack (with enclosure)  
Mr. Robert Corbett (with enclosure)  
Ms. Virjean Edwards (with enclosure)

# CREATING AND CHANGING UNDERGRADUATE ACADEMIC PROGRAMS

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OFFICE USE ONLY

Control #

STAF 20130419

After college/school/campus review, send a signed original and 1 copy to the Curriculum Office/FCAS, Box 355850.

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

College/Campus		Arts and Sciences	Department/Unit	Statistics	Date
					4/19/2013
<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 _____. X Revised Admission Requirements for the Major in <u>Statistics</u> within the Bachelor of <u>Sciences</u> . <input type="checkbox"/> Revised Program Requirements for the Major in ____ within the Bachelor of _____. <input type="checkbox"/> Revised Requirements for the Option in ____ within the major in _____. <input type="checkbox"/> Revised Requirements for the Minor in _____.					
<b>Other Changes</b> <input type="checkbox"/> Change name of program from ____ to _____. <input type="checkbox"/> Change delivery method or location of program. <input type="checkbox"/> New or Revised Continuation Policy for _____. <input type="checkbox"/> New Honors Requirements for _____. <input type="checkbox"/> Eliminate program in _____.					
Proposed Effective Date: <b>Quarter:</b> X Autumn <input type="checkbox"/> Winter <input type="checkbox"/> Spring <input type="checkbox"/> Summer <b>Year: 20 13</b>					
Contact Person:	Shorack, Galen		Phone: 543-1182	Email: galen@stat.washington.edu	Box: 354322

### EXPLANATION OF AND RATIONALE FOR PROPOSED CHANGE

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).

Please see attached.

**OTHER DEPARTMENTS AFFECTED**

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.


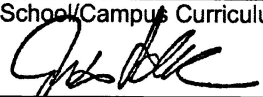
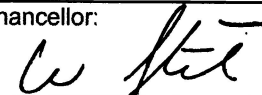
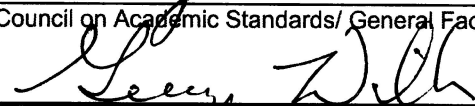
Please see attached current catalog.

**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.

Please see attached proposed catalog.

**APPROVALS**

Chair/Program Director: 	Date: 4/19/2013
College/School/Campus Curriculum Committee: 	Date: 4/18/13
Dean/Vice Chancellor: 	Date: 4/23/13
Faculty Council on Academic Standards/ General Faculty Organization/Faculty Assembly Chair: 	Date: 5/17/13
<b>POST TRI-CAMPUS 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; ~~MATH 300~~, MATH 307, MATH 308, ~~MATH 327~~, ~~MATH 328~~, STAT 302, STAT 311. Additional courses in the sciences and quantitative methods add strength to this major. ~~Declaration of the statistics major is required to obtain priority status in registration for MATH 300, MATH 327, MATH 328, STAT 340, and STAT 341.~~

### **Department Admission Requirements**

1. Completion of 45 credits.
2. *Mathematics:* MATH 124, MATH 125, MATH 126
3. *Statistics:* One of STAT 311 (highly recommended), STAT 390, or an approved substitute (~~STAT 220, STAT 221, or STAT 301~~), which is seldom allowed
4. Two additional courses from the following: CSE 142, ~~MATH 300~~, MATH 307, MATH 308, ~~MATH 327~~, ~~MATH 328~~. ~~Recommended: MATH 300, MATH 327~~
5. ~~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 UW General Catalog.~~
6. ~~GPA: Minimum grade of 2.0 in each course used for the requirements listed above and a cumulative GPA of 2.80 for these courses.~~
7. ~~Students wishing to declare a statistics major must apply by contacting the adviser after prerequisites are completed and graded.~~



## Proposed:

### Bachelor of Science

*Suggested First-and Second-Year College Courses:* CSE 142; MATH 307, MATH 308, either STAT 302 (recommended) or CSE 143, STAT 311. Additional courses in the sciences and quantitative methods add strength to this major.

### Program Admission Requirements

Application to the BS degree program in statistics is competitive. Completion of minimum requirements described below does not guarantee admission. All applicants have the right to petition and appeal the department's admission decision. Applications are considered once each academic year and are due on the first Friday of September.

1. Minimum course requirements for admission applications:
  - a. MATH 124, MATH 125, MATH 126 (or MATH 134, MATH 135, MATH 136)
  - b. one of STAT 311 (highly recommended), STAT 390, or an approved substitute, see website for approved list.
2. At least two additional courses from: CSE 142, <sup>stat</sup> either 302 (recommended) or CSE 143, MATH 307, MATH 308
3. Factors in the admission decision include but are not limited to academic performance as measured by GPA in courses listed above and any additional advanced quantitative courses presented for application consideration.
4. Admission is competitive. Successful applicants for the BS statistics program typically have a cumulative GPA greater than 3.00 in courses listed above under course requirements, with no individual course grade lower than a 2.5.

## Competitive Major in Statistics, 5/3/2013

### Explanation:

**Concerning Demand:** Only one section of each of Stat 340-341-342 is offered each year, and these accommodate approximately 40 students each. This sequence is the most important step toward the Statistics Major. The yearly demand already exceeds our capacity and is increasing. We can not waste space on unqualified students with no real chance of completing the Major. Demand for the Statistics Major has been fast increasing since our introduction of Stat 340 in 2010. Since that time the main entry to the Statistics Major is via this one year sequence Stat 340-341-342; this is very typical of the national pattern. Prior to that, the four courses Math/Stat 394-395 and Stat 341-342 were required; this was an artifact of our birth from within Mathematics in 1979. Indeed, the number of declared Statistics Majors during Autumn quarters from 2007 on has been 18 (in 2007), 20, 22, 25 (in 2010), 43, 64, 93 (in 2013), and 122 (at this moment). There is no way that we can meet our current demand. We will soon put notification of this overload on the Statistics Department website and in our advice sheet handed out to Statistics Majors, unless we can resolve this situation.

### Concerning Current Admissions Requirements for the Statistics Major:

In 2010 the Statistics Department request for

Admissions Requirements that included Math 300 and Math 327 was approved. Unfortunately, at roughly this same time, demand for various Math courses (including Math 300 and 327) became so high that Math had to restrict the first registration period to Math, AMath, and Stat **majors only**. This was enough to fill these courses, and leave them inaccessible to those wanting to become Statistics Majors; yet students could not become a Statistics Major without them. Thus our plan to use Math 300 and Math 327 as Admission Requirements died stillborn. We soon received notice that no one was qualifying and that we should change our Admission Requirements. Based on the changes suggested to us (with disappointment) we formulated our current Admissions Requirements of a minimum gpa of 2.8 in:

Math 124-125-126 [Basic calculus; or, an Honors calculus substitute].

Stat 311 (or, exceptionally, Stat 390) [Introduction to elementary statistics].

**Any two of:** Math(300, 307, 308, 327), CSE 142.

And, Math 300 and 327 were the recommended choice.

Of course, no one took either Math 300 or Math 327 because it was impossible to gain entry to them without the unattainable preparation, they were harder, and at that time the students had not had adequate time to prepare for this change. However, they really are the best choice, and they are the best predictors of success in Stat 340-341-342. Our current Admissions Requirements are not nearly strong enough to be reliable predictors for success as a Statistics Major. That is why there are students in Stat 340 and Stat 341 that receive grades less than 2.0 (and of course, less than 2.5). Spaces in the Stat 340-341-342 sequence are thus wasted. Still, we are unable to formulate an appropriate set of Admissions Requirements. Thus, we now seek to change to a Competitive Major in Statistics. Even though we still would still not be able to require Math 300 and Math 327 for admission, we could at least raise the bar to a realistic level in the courses that students can access, and we can reward those who do more than the minimum to prove their worth.

## STRATEGIC PLANNING

**Basic Fact 1:** We want majors to have nearly all Math requirements completed by Autumn of their Junior year. Having completed at least Math 300 and Math 327 prior to that point is needed to graduate in 4 years.

**Basic Fact 2:** Admission to the Statistics Major must take place early enough so that a Stat Major can be eligible in the first quarterly enrollment period (as a Major in one of the Math Sciences) to even have a chance to enroll in Math 300 and Math 327.

### **Practice with Sample Programs using the proposed Competitive Major:**

We laid out a 4 year by 4 quarter grid based on each of the Autumn, Winter, Spring, and Summer possibilities of official admissions to the Major.

**Conclusion:** Having only Autumn admissions leads to a very suitable situation. Adding further admissions in any other quarter leads to a very small number of additional good endpoints. Basically, the wording in point 1c accomplishes a great deal in making Autumn work so well. (We appreciate the suggestion.)

**Request:** If the Competitive Major for Statistics were approved to start Autumn of 2013, we would be able to stop swelling our current overcrowded situation during the course of the 2013-2014 academic year. A further overcrowding will result if we have to continue admitting "everyone who asks." We may even be able to catch up to some limited degree on our current overcrowding.

Remember, those admitted this fall would only be eligible to enroll in Math classes during the 2013-2014 academic year. This would give them the prerequisites to enroll in Stat 340 in Autumn of 2014-2015, and be "on time."

**Thus** the Stat part of the Competitive Major would actually begin in Autumn 2014.

**However,** only the Math preparation part would begin this year following the Autumn 2013 admissions to the Stat Major.

## **Jennifer A. Payne**

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**From:** Janet YALE  
**Sent:** Thursday, May 16, 2013 2:45 PM  
**To:** Jennifer A. Payne  
**Cc:** Kevin K. Mihata  
**Subject:** RE: Statistics proposal for a Competitive Major

Hi Jennifer – I am sending this email to let you know that the A&S Curriculum Committee discussed the competitive admissions documents for Statistics and approved the change to competitive admissions.

Thanks,

### **Janet Yale**

Assistant to the Divisional Dean for Social Sciences  
Assistant to the Associate Dean for Educational Programs  
College of Arts and Sciences  
tel: (206) 616-2128

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**From:** Kevin K. Mihata  
**Sent:** Monday, May 13, 2013 8:07 AM  
**To:** Janet YALE  
**Subject:** FW: Statistics proposal for a Competitive Major

We can talk about this this AM....

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**From:** Jennifer A. Payne  
**Sent:** Wednesday, May 08, 2013 11:16 AM  
**To:** Kevin K. Mihata  
**Subject:** RE: Statistics proposal for a Competitive Major

Kevin,

I was hoping to take it to SCAP this week – so I would be okay with preliminary approval. Attached are the competitive admissions documents.

Jennifer

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**From:** Kevin K. Mihata  
**Sent:** Wednesday, May 08, 2013 8:50 AM  
**To:** Jennifer A. Payne  
**Subject:** RE: Statistics proposal for a Competitive Major

Hi Jennifer,

In general, I thought that their interim step was unnecessary as well – just pull the trigger or don't on competitive admission. On the other hand, the A&S committee did not consider it in terms of competitive admission. I think they would be favorable, but we might want to run it by them. Do you have the updated proposal? We also have another A&S meeting scheduled for next week (though we may not have enough proposals to have a meeting), so we could run it by them then. I'd be OK with continuing the process to SCAP if that makes sense, since I anticipate the A&S committee will be OK with it – sort of a conditional approval, given that they did approve it initially. But it's possible they might say no, I guess. Given the general push to more competitive majors, I don't think we'd want to go fully through without

## Jennifer A. Payne

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**From:** Selim Tuncel <chair@math.washington.edu>  
**Sent:** Thursday, May 16, 2013 12:10 PM  
**To:** Galen Shorack  
**Cc:** Elizabeth Thompson; Brooke Miller; Jennifer A. Payne; June Morita  
**Subject:** Re: Fwd: RE: Re: Stat application for a competitive major -- deadline noon Thursday  
**Attachments:** STAT-20130419 supplement SCAP revision proposed.pdf

Dear Jennifer,

This looks good from the perspective of the Math Department.

Best,

Selim Tuncel

On Thu, 16 May 2013, Galen Shorack wrote:

>Date: Thu, 16 May 2013 11:11:19 -0700  
>From: Galen Shorack <galen@stat.washington.edu>  
>To: chair@math.washington.edu, Elizabeth Thompson <eathomp@u.washington.edu>,  
> Brooke Miller <miller@math.washington.edu>,  
> Shorack <galen@stat.washington.edu>, Jennifer A. Payne <jap2@uw.edu>,  
> June Morita <june@stat.washington.edu>  
>Subject: Fwd: RE: Re: Stat application for a competitive major -- deadline noon  
> Thursday  
>  
> Actually, here is the totally "niced up" version, Selim Galen  
>  
>  
> -  
>  
> Here is the proposed copy with the last round of edits.  
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