Proposal for a Graduate Certificate in Statistics

Submitted by

Mary Ellen Bock, Head,
Department of Statistics
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I. Introduction

This proposal from the Department of Statistics to the Graduate Council of the Graduate School of Purdue University, West Lafayette Campus, is for a graduate certificate program in statistics. The details are described below in the order addressed by the policy statement for "Graduate Level, Academic Credit Certificate Programs at Purdue University", approved November 18, 1999, by the Graduate Council.

II. Admissions Requirements

A. Graduate School Admission Requirements

As specified by the Graduate School, the following three requirements must be met:

1. Bachelor's degree from an accredited institution
2. Minimum undergraduate GPA of 3.0/4.0 with the possibility of conditional admission for applicants who do not meet this requirement.
3. Minimum TOEFL score of 550 for applicants whose native language is not English, with the possibility of allowing exceptions, including substitution of alternate criteria.

B. Department of Statistics Admission Requirements

The Department of Statistics specifies, in addition to the ones above, the following requirements:

1. Students who are currently admitted to a Purdue graduate degree program other than Statistics are eligible to earn the Certificate.
2. Students who are currently admitted to an M.S. or Ph.D. degree program in Statistics are not eligible to earn the Certificate in Statistics.
3. Students who are not currently admitted to the Purdue Graduate School must apply for admission through the Department of Statistics.
4. Students, whether or not currently admitted to the Purdue Graduate School, must submit applications material to the Department of Statistics for approval of admission to the Certificate Program.
5. Required courses, or equivalent, for admission to the Certificate Program of the Department of Statistics are STAT 511 and STAT 512. Possible exceptions may be approved by the Department of Statistics.

III. Completion requirements

A. As required by the Graduate School,

1. No more than 12 credit hours earned in nondegree status, including credit hours earned toward completion of a single certificate or more than one certificate, may be applied toward a graduate degree.
2. Courses that have been certified as undergraduate excess may be used to satisfy requirements for the Certificate.
B. As required by the Department of Statistics,
1. Total number credit hours are 12.
2. Specific course requirements: STAT 516 and STAT 517 and two of
   {STAT 513, STAT 514, STAT 520, STAT 522, STAT 524}. Other
   Statistics graduate courses with numbers above 517 may be substituted for
   courses in the list with the approval of the Graduate Committee of the
   Department of Statistics.
3. GPA requirements:
   a. Minimum overall GPA for courses that are to be used to fulfill the
      Certificate requirements is 3.0/4.0.
   b. Minimum grade for any course to be applied toward the Certificate is
      3.0/4.0.
4. No credit hours may be transferred from another institution.
5. No credits from undergraduate-level courses may be used toward the
   Certificate.
6. Maximum time allowed for completion of the Certificate is three years.
7. Courses may not be applied for credit toward more than one certificate in
   Statistics.
8. The maximum number of credit hours taken prior to admission to the
   certificate program that may be counted toward completion of the
   certificate is six.

IV. Administration
A. Graduate School Administration Role
   As specified by the Graduate School, the following administrative procedures will
   be followed.
1. The admission process shall parallel that for students seeking graduate
   degrees in Statistics.
2. The Office of the Registrar will establish a special admission status for
   students enrolled in the certificate program.
3. When a student completes requirements for the certificate, the Graduate
   Program in Statistics will notify the Graduate School, which will then
   notify the Office of the Registrar
4. The certificate will be posted separately upon completion of the
   requirements and recorded in the following manner:
      Graduate Certificate
      Field of Study: Statistics
      Specialization: Applied Statistics
   Credits earned toward a certificate will be included in the computation of
   the overall GPA posted on the transcript.
5. The Certificate will be printed by the Office of the Registrar.
6. The Certificate will be awarded jointly by the Department of Statistics and
   the Graduate School. It will bear the signature of the head of the Statistics
   Department and the dean of the Graduate School.
7. The Certificate will be awarded at the normal times when degrees are
   awarded.
8. The Statistics Department will submit an annual report in February of each year to the Graduate Council containing the following information:
   a. the number of students currently admitted to the certificate program
   b. for each admitted student:
      i. date admitted
      ii. whether or not the student is also currently admitted to a degree program at Purdue, and if so, which degree
      iii. number of credits completed toward fulfillment of certificate registration
   c. number of certificates awarded annually

B. Department of Statistics Administration Role
The Graduate Program in Statistics will use the following procedures in administering the Certificate program:
1. At the end of each semester (including summer school) after the initial enrollment of the student in the Certificate program, the student's record will be updated by the Department of Statistics Graduate Secretary to reflect courses completed toward certificate requirements. If the requirements are completed at any time by the end of three years, then the student will be informed as will the Graduate School. The student's mailing address for the certificate will be requested and sent along to the Graduate School which will forward it to the Office of the Registrar. If the requirements are not met by the end of three years, then the student and the Graduate School will be informed of his or her dismissal from the Department of Statistics Certificate Program.
2. Upon notification by the Graduate School of the completion of the Certificate requirements, the Office of the Registrar will mail the certificate to the student.

V. Approvals and Other Aspects of the Certificate Program
A. Title, Rationale and Start Date of the Program
1. The official title of the Program will be "Graduate Certificate in Applied Statistics".
2. The purpose of the program is to credential students who have a baccalaureate degree and who have mastered a sufficient number of courses in statistics at the graduate level beyond those required for a statistics bachelor's degree. Certificate courses may be used on the plan of study for an M.S. in applied statistics. For many, interpreting the information in an increasingly data-rich environment requires a greater degree of statistical expertise than that found in an introductory statistics course or two. Holders of bachelor's degrees in fields outside of statistics often find themselves taking a number of advanced statistics courses in order to keep abreast. Their advancement and employment prospects may be enhanced by a clear demonstration of competence in statistics. The Certificate program allows them to document their expertise and enjoy the accompanying benefits at a
time when demand for statisticians has far outstripped the supply. This target audience of holders of bachelor's degrees (some possibly already employed in industry) and graduate students already enrolled in other programs on campus should number at least ten to twenty in the first few years. Initially, more than half of them are likely to be concurrently working toward a graduate degree in another program at Purdue but that fraction is expected to fall below half after a few years. The number of students off-campus participating through distance education and the TV courses of Continuing Engineering Education (CEE) are expected to grow because almost all of the courses listed are offered through CEE.


B. Approvals
This proposal has been approved by the head of the Graduate Program in Statistics

Mary Ellen Bock

AND

The Dean of the School of Science

Harry Morrison