PhD students in the Department of Statistics & Actuarial Science will be required to write a general examination as required by the calendar regulations:

Candidates normally pass a general examination covering a broad range of senior undergraduate statistics material. A candidate ordinarily cannot take the general exam more than twice. This exam is completed within four full time semesters of initial PhD enrolment.

**Purpose of the examination**

The examination serves the following purposes:

1. The examinations ensure that students obtaining a Ph. D. in Statistics & Actuarial Science from Simon Fraser University have strong theoretical and applied skills; both are considered to be important degree requirements.

2. The examination provides an opportunity to recognize gaps in student’s training. It is expected that students will, from time to time, be required by the Graduate Studies Committee to complete further course work in view of their exam results.

3. The examinations should ensure that students spend a period of time (intended to be about 2 months) synthesizing their understanding of the field.

**Structure and syllabus**

The examination consists of three parts:

1. Mathematical Statistics, covering the basic concepts of mathematical statistics as described in the current syllabus for the examination, available from the Graduate Secretary.

2. Applied Statistics I, covering basic concepts of applied statistics in the areas of experimental design, linear regression and generalized linear models as described in the current syllabus for the examination, available from the Graduate Secretary.

3. Applied Statistics II, covering at least three specialized areas of statistics and actuarial science; the areas covered will be agreed upon by the student’s supervisory committee and the graduate program committee. A syllabus will be prepared for each student taking this examination.
Students may have the Applied Statistics II requirement waived on application to the Graduate Studies Committee if they have completed, at SFU or elsewhere, graduate course work in at least three suitable areas of statistics and actuarial science, achieving grades which, in the opinion of the graduate studies committee, demonstrate an adequate mastery of the subjects in question. Generally this will require a grade of A- or better.

**Grading**

Each exam is set by a committee appointed by the Graduate Studies Committee. Individual examinations are marked by the setting committee who then provide a recommendation to the Graduate Studies Committee. The Graduate Studies Committee has the responsibility for determining which of the following outcomes applies based on an overall assessment of the set of examination results:

1. The student may be passed.

2. The student may be passed but required to complete satisfactorily one or two extra courses as determined by the Graduate Studies Committee in consultation with the student’s supervisory committee.

3. The student may be required to rewrite, within a period of 6 months, one or more of the examinations. This option will be used only for students whom the Graduate Studies Committee considers to have a reasonable likelihood of passing on a second attempt.

4. The student may be failed outright; such a failure would be regarded as evidence of unsatisfactory progress in the sense of the Graduate General Regulations.

It is expected in each case that the student’s supervisory committee would be consulted before making any determination in the last three categories, though the responsibility for the final decision rests with the Graduate Studies Committee.

**Approved at departmental meeting on 18 June 2002.**