

THE STATISTICS GRADUATE PROGRAM GUIDELINES FOR NEW STUDENTS

Updated August 30, 2016

Welcome to the graduate program in Statistics at The University of Victoria. Our graduate program is designed to prepare our students for employment as statisticians in private industry, government, or academia. The MSc program provides students with a solid background in statistical theory and can be used as a stepping stone to a doctoral degree in Statistics, or another related field. This document will outline the options and requirements for the MSc and PhD degrees, and provides important information that will help you get oriented within our program.

Note: We hope that this document will provide useful and timely information for incoming Statistics Graduate Students. Formal regulations and policies governing our programs are detailed in the UVic Graduate Studies Calendar; in all cases Calendar regulations supersede information in this document. We encourage you to review the relevant Graduate Calendar entries.

I. Your Graduate Supervisor

As a new student in our program, you have been assigned a provisional supervisor. If you do not know which faculty member has been assigned as your provisional supervisor, please contact the graduate secretary, who can be found in the main office (SSM A425). **As soon as you arrive, you should make an appointment with your provisional supervisor to introduce yourself, and discuss graduate courses you need to take for the first two terms.** After the first term, you need to choose a supervisor for your graduate program based on the mutual research interests between you and your supervisor, availability of faculty members and other factors. Your provisional supervisor can become your supervisor if both of you agree. Or you can get advice from your provisional supervisor to find a supervisor. After that, your supervisor is your primary point of contact within the program.

After you choose a supervisor, a supervisory committee needs to be formed within the next few weeks. The committee consists of your supervisor and another one or two faculty members in the department. This committee will review your performance at the end of April every year, your project or thesis and the oral presentation, and any other issues that may be related to your study.

II. Options and Requirements for the Master's Degree Program

There are two options for completing a Master's program in Statistics: (1) a project-based option; (2) a thesis-based option. Normally, a student admitted into a Master's program in

Statistics is expected to take the project-based option, which will have a strong focus on graduate level course work. A student may register for the thesis-based option after discussion and approval from his/her supervisor.

Requirements for the project-based option

The requirements are eight courses and a research-project as follows:

- (a) Stat 598 (Project),
- (b) Math 585 (Graduate Seminar course), and
- (c) Seven graduate courses in mathematics and statistics.

Project guidelines

To complete Stat 598, a student must write a report on a research topic and give an oral presentation. The supervisory committee, consisting of two members (a supervisor and one faculty member), will review the report and the oral presentation. Usually, another member from the department will chair the presentation. The possible project topics include data analysis, literature review, and simulation study. Each student needs to talk to his/her supervisor about the possible topics in the second term.

Requirements for the thesis-based option

The requirements are six courses plus a thesis as follows:

- (a) Stat 599 (Thesis)
- (b) Math 585 (Graduate Seminar course), and
- (c) Five graduate courses in mathematics and statistics.

Thesis guidelines

To complete Stat 599, a student must write a thesis and have an oral examination to defend it. The thesis should contain original research work on statistical theory, methods or applications. Normally the research work is expected to lead to one publication. The supervisory committee usually consists of one supervisor and one faculty member in the department. In the oral examination, the committee includes one more faculty member from outside the department or the university.

Graduate courses

Students are allowed to take at most two courses numbered 400 for graduate courses, and the other courses should be numbered 500 or higher. Students may take graduate courses from other departments, with permission from their supervisors, such as Econ 545, Econ 546, Econ 547, ELEC 503, and ELEC 603. The University of Victoria course listing and timetable can be found at the website:

https://usource.uvic.ca/pls/BAN1P/twbkwbis.P_GenMenu?name=StudentTTandCatalog

Expected time to complete the program

Normally, students taking the project-based option are expected to complete the program in 20 months. Students taking the thesis-based option are expected to complete the program in 24 months. **All students should take at least three courses in each of their first two terms.** For the project-based option, students can complete the eight courses in three terms and finish a project in two terms. For the thesis-based option, students can complete the six courses in two terms and write a thesis in four terms.

Funding (not including teaching assistantship)

The maximum number of terms a student may receive funding is 5 for the project-based option, and 6 for the thesis-based option. The funding is renewable only if the student's performance is satisfactory as determined by the supervisory committee. Please keep this in mind.

English writing/speaking courses

It is important to have good communication skills to find jobs as statisticians. Graduate students who are not proficient in English speaking and writing are encouraged to participate in English writing/speaking tutorials and workshops during the program. These activities are offered by the Centre for Academic Communication and are not counted as credit for the graduate program.

<http://www.uvic.ca/learningandteaching/home/home/centre/services/index.php>

Here is a link for graduate thesis/project writing assistance:

<http://www.uvic.ca/graduatestudies/resourcesfor/students/thesis/basics/index.php>

Co-operative education

Co-operative education provides a way of gaining work skills and experience so that students are well prepared for the job market after graduation. MSc students are encouraged to participate in graduate co-operative education. A student can receive co-operative education designated degree by completing two 4-month work terms during the program. More information about this can be found at the website:

http://coop.uvic.ca/index.php?page=current_student_grad

III. Requirements for the PhD Program

The PhD program involves three components: (1) course work; (2) a candidacy examination; and (3) a dissertation. More specifically, students admitted into the PhD program are required to complete a minimum of 4 graduate courses, including at most one seminar course, totaling 6 units, the course STAT 693 (Candidacy Examination) worth 3

units, and a dissertation of original, publishable research worth at most 21 units (STAT 699). Students entering the program without a Master's degree must complete a minimum of 8 graduate courses, including at most one seminar course, totaling 12 units, the course STAT 693 worth 3 units, as well as a dissertation of original, publishable research worth at most 30 units (STAT 699).

All students are required to pass a candidacy examination consisting of three parts, in distinct areas, within their first two years of study. Students must register for STAT 693 in the terms in which they are preparing or writing the candidacy examinations.

Expected time to complete the program

Students are expected to complete the PhD program in between 12 and 15 academic terms. During the first 3 terms, students will normally complete their coursework and candidacy exam. The first two terms will be devoted primarily to course work, and the third term will normally involve preparing for and writing the PhD candidacy exam. The remaining terms are devoted to research and completion of the dissertation.

Funding (not including teaching assistantship)

Typically, the maximum number of terms a student may receive funding is 12. The funding is renewable only if the student's performance is satisfactory as determined by the supervisory committee. Please keep this in mind.

IV. Academic Performance

Students must achieve a grade point average of at least 5.0 (B) for every session in which they are registered. Every grade of 4.0 (B-) or lower in a course taken for credit must be reviewed by the supervisory committee of the student, department graduate advisor and Dean of Graduate Studies. Such students will not be allowed to register in the next session until approved to do so by the Dean. Also funding will not be given for students without satisfactory performance.

V. Statistics Seminars

All students must attend Statistics Seminars and the Graduate Seminars regularly. Please check the seminar schedules at the beginning of each term.

VI. Teaching Assistantships

Students can apply for teaching assistantship before the beginning of each term. Please contact Dr. Jane Butterfield in SSM A445 for more information, and to arrange this.