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TO: Senate

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FROM Wade Parkhouse, Dean, Graduate Studies



RE Faculty of Environment [GS2010.01]

CC Duncan Knowler

DATE January 21, 2010

For information

Acting under delegated authority at its meetings of 11 January 2010, the SGSC approved the following curriculum revisions:

Department of Resource and Environmental Management [GS2010.01]

PhD Degree requirements

1. Change from 5 required to 2 required plus 3 elective courses
2. Change in structure of comprehensive examination
3. Calendar changes related to PhD program

Senators wishing to consult a more detailed report of curriculum revisions may do so on the Web at http://www.sfu.ca/senate/Senate_agenda.html following the posting of the agenda. If you are unable to access the information, please call [778.782.3168](tel:778.782.3168) or email bgrant@sfu.ca.



GS2010.01

FACULTY OF ENVIRONMENT

MEMO

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ATTENTION	Wade Parkhouse, Chair, Senate Cmte on Graduate Studies
FROM	Wolfgang Haider, Chair, FENV Graduate Studies Curriculum Committee
RE	Revisions to REM PhD
DATE	December 17, 2009

Dear Dr. Parkhouse,

At its meeting on Oct. 30/09 the FENV Graduate Studies Committee approved the following changes to the REM PhD and is recommending them to SGSC:

REM PhD

Rationale: The main reason for this change is to shorten the time students require for until completion of the comprehensive exam, while still maintaining a strong interdisciplinary focus for the program and exam. The credit hours required remain the same, except that it might be easier for some students to obtain a waiver for one course.

The changes being made are:

1. The integrated paper requirement (about 45 pages) has been eliminated.
2. The comprehensive exam (oral) has been combined with the thesis proposal defense (oral).
3. A written submission of the thesis proposal will remain a requirement, and provide the background to the joint comprehensive examination / thesis proposal defense.
4. REM 802 (the PhD course) has gained significance as the core course for thinking about integrated and interdisciplinary research; the examination for this course will be undertaken jointly by the course instructor and the respective student's supervisory committee to ensure interdisciplinarity.
5. Previously required - 5 courses including REM 611, 621, 644, 698 and 802. Changed to - 5 courses are still required but only 2 are specified (REM 698 & 802) with 3 highly recommended (REM 611, 621, 644)

These changes are to be effective for Fall 2010 and are reflected in the attached calendar change.

Thank you.
Dr. Wolfgang Haider

cc: D. Knowler, Associate Dean, FENV; B. Wepruk, FENV Curriculum Planning Mgr.

FROM: SFU Calendar 2009

Degree Requirements

Admission Requirements

To qualify for admission, an applicant must satisfy all university admission requirements as outlined in the graduate general regulations. Applicants must have:

- the ability to carry out innovative, independent and original PhD level research in that field
- high academic standing in previous university work
- a master's degree in a related discipline

All applicants must submit the following with their application:

- all university transcripts
- a short curriculum vitae providing evidence of awards, academic performance, publications and relevant research and work experience
- a 500-1,000 word statement of interest describing how this program fits into the applicant's research and career objectives
- three letters of reference (using the form provided in the application package) from respected academics/researchers who have first-hand knowledge of the applicant's research capabilities and academic training
- results from the GRE Test and
- official results of the TOEFL and TWE or IELTS exams (for applicants whose first language is not English and whose previous education has been conducted in another language)

Applicants must be accepted by an identified senior supervisor prior to admittance. PhD applicants are strongly advised to visit the University for an interview prior to February 1 of the year of requested admission. See ~~"1.3.4 Admission to a Doctoral Program" on page 220.~~

Transfer from the Master's Program to the PhD Program

~~An MRM student~~ who shows exceptional ability may apply to transfer to the PhD program only if the student has the ability to carry out innovative, independent and original PhD-level research in that field, and has obtained high academic standing in previous university work, and has the support of their master's research supervisor. All university regulations governing transfers must be met. Transfers are only permitted when the student has been in the master's program for two but not more than four terms.

Transfer applications must be approved by the student's supervisory committee, the REM graduate Studies Committee, and the senate graduate studies committee. ~~Transfer students~~ will be eligible to earn only the PhD degree.

Courses

All REM PhD students must complete and maintain an A- average in the following

- ~~REM 611 – Population and Community Ecology~~
- ~~REM 621 – Ecological Economics~~
- ~~REM 644 – Public Policy Analysis and Administration~~
- ~~REM 698 – Field Resource Management Workshop~~
- ~~REM 802 – Research Approaches for REM PhD Students~~

~~The student's supervisory committee may recommend that the student completes elective courses in addition to the required courses in order to strengthen the student's background in areas directly related to their thesis research. Elective courses may be completed outside REM, if approved by the student's supervisory committee.~~

~~Students who transferred from the REM master's program into the REM PhD may obtain a course waiver for REM 611, 621, and 698 if they have received credit with an A- average. If a student receives a course waiver, the student is not required to replace the course for which the waiver was received with another course.~~

Comprehensive Examinations

~~To complete the PhD degree the student must pass the REM PhD comprehensive examination that examines the candidate's knowledge and abilities in disciplinary areas that are different from but related to the student's thesis research. The comprehensive examination includes three disciplinary areas, i.e.~~

- ~~• environmental sciences~~
- ~~• policy and planning in resource and environmental management~~
- ~~• natural resource and environmental economics~~

~~To complete the comprehensive examination, the student must prepare a written integrative paper which addresses issues in these three areas. The integrative paper is evaluated by the comprehensive examination committee in accordance with the policies and procedures of the School of Resource and Environmental Management. Students must pass an oral exam based on the integrative paper which is administered by the comprehensive examining committee. The integrative paper will normally be completed in the first three terms in the PhD program and the oral exam will normally be completed early in the student's fourth term in the program. If the candidate fails the comprehensive exam, and this assessment is approved by the graduate studies committee, the student will be required to withdraw from the PhD program.~~

~~Detailed information about the comprehensive examination procedures, dates, and deadlines are provided in the PhD Handbook of the School of Resource and Environmental Management.~~

Thesis Proposal

~~PhD candidates must submit a written thesis proposal by the end of the fifth term of full-time program enrolment. In conjunction with the supervisory committee, students develop a detailed written research proposal which must be defended before this committee. This thesis proposal is intended to demonstrate that the candidate's research abilities are adequate for PhD-level research and to determine that the proposed research is feasible and has merit. The student must pass the thesis proposal defence to remain in the program.~~

Thesis

~~A written thesis based on the candidate's original research in resource and environmental science and management is the final PhD program requirement and must include aspects of at least two disciplinary areas (such as ecology and policy, or toxicology and law). The topic must be approved as noted above and the student's~~

~~progress will be evaluated annually in accordance with the graduate general regulations. When the thesis is essentially complete, the student must first present it to a departmental colloquium prior to proceeding to the formal thesis defence. This presentation shall form the basis of the supervisory committee's recommendation about defence readiness. All PhD candidates must then pass the formal thesis defence, which is conducted in accordance with University regulations. All other PhD general requirements are as outlined in the graduate general regulations.~~

Residence Requirement

A PhD candidate must be enrolled and in residence at Simon Fraser University for the minimum number of terms as described in the "Graduate General Regulations" on page 219.

TO: SFU Calendar 2010 – 2011

REM – PhD Program

The purpose of the REM PhD program is to provide students with an environment in which they can demonstrate their competence in independent and original scientific research in the interdisciplinary field of resource and environmental management. The PhD program in REM focuses on developing innovative scholars with broad interdisciplinary training in applied environmental problem solving and strong skills in independent, integrative research. Through their program of studies and research, all PhD students gain exposure to three core areas: environmental sciences, resource and environmental policy and planning, and ecological and environmental economics. Their research must integrate elements of two of these three areas.

Admission Requirements

To qualify for admission, an applicant must satisfy all university admission requirements as outlined in the graduate general regulations. Applicants must have:

- the ability to carry out innovative, independent and original PhD level research in their field,
- high academic standing in previous university work, and
- a Master's degree in a related discipline.

All applicants must submit the following with their application:

- all post-secondary transcripts,
- a short curriculum vitae providing evidence of awards, academic performance, publications and relevant research and work experience,
- a 500-1,000 word statement of interest describing how this program fits into the applicant's research and career objectives,
- three letters of reference (using the form provided in the application package) from respected academics/researchers who have first-hand knowledge of the applicant's research capabilities and academic training,
- results from the GRE test, and
- official results of the TOEFL and TWE or IELTS exams (for applicants whose first language is not English and whose previous education has been conducted in another language).

Applicants must be accepted by an identified Senior Supervisor (REM Faculty member) prior to admittance. PhD applicants are strongly advised to visit the University for an interview prior to February 1 of the year of requested admission.

Transfer from the Master's Program to the PhD Program

A student in our Master's degree program (MRM), who shows exceptional ability may apply for transfer to the PhD program only if the student has the ability to carry out innovative, independent and original PhD-level research in that field, has obtained high academic standing in previous university work, and has the support of their Masters' research supervisor. All university regulations governing transfers must be met. Transfers are only permitted when the student has been in the Master's program for at least two, but not more than four terms. Transfer applications must be approved by the student's supervisory committee, the REM Graduate Studies Committee, and the University Senate Graduate Studies Committee. Students transferring from the Master's program will be eligible to earn only the PhD degree.

Supervisory Committee

With guidance from the Senior Supervisor, upon admission, each student will be assigned an Initial Supervisory Committee (the supervisor plus at least one additional REM Faculty member). The Initial Supervisory Committee must be either modified or confirmed as the student's Supervisory Committee by the beginning of the second term (at the latest when starting in REM 802). The Supervisory Committee shall reflect the student's evolving research direction and consist of the Senior Supervisor and at least one other SFU Faculty. Both the Initial and the subsequent regular Supervisory Committees must include representation from two of the three REM core research areas.

Degree Requirements

Courses

All REM PhD students must complete and maintain a minimum A- average across all courses.

Required for PhD students:

Students are required to take 5 courses.

REM 698-3 Field Resource Management Workshop (normally taken in the first Fall Term in the program)

REM 802-5 Research Approaches for REM PhD Students (normally taken in the student's second term)

Students will also take at least one course in each of the three core areas (environmental sciences, resource and environmental policy and planning, and environmental economics). Although it is strongly recommended that PhD students take all three core courses in their first fall semester, the timing will be determined by the student and the Senior Supervisor in conjunction with the Initial or continuing Supervisory Committees. The recommended courses to fulfill this requirement are normally:

REM 611-5 Applied Population and Community Ecology

REM 621-5 Ecological Economics

REM 644-5 Public Policy Analysis and Administration

One of these REM core courses may be waived on the basis of substantial prior experience, with agreement from the Supervisory Committee, the course instructor, and the GSC. If a student receives a course waiver, the student is not required to replace the course for which the waiver was received.

Course selection must be approved by the Senior Supervisor or the Supervisory Committee, who may recommend additional courses to be taken during the first year in order to strengthen the student's background in areas directly related to their thesis research. Elective courses may be completed outside of REM. Students who transfer from the REM Master's program into the REM PhD program are not required to re-take REM 611, 621, 644 and 698 if they have completed these courses with minimum A- average across these courses.

The student's progress will be evaluated annually in accordance with the SFU graduate general regulations.

Comprehensive Examinations and Thesis Proposal

REM 802 emphasizes the preparation of PhD students for completing the comprehensive examination and defense of their thesis proposal. The student must complete REM 802 successfully in their second term, except in exceptional circumstances. REM 802 course requirements include:

- 1) a draft thesis research proposal containing a strong interdisciplinary direction, and
- 2) an oral examination of the draft research proposal with the REM 802 course instructor and the Supervisory Committee.

No later than at the end of their 4th term in the program, each student must successfully defend their PhD thesis research proposal during a comprehensive exam in front of an approved Oral Examination Committee comprised of the student's Supervisory Committee plus additional REM faculty as needed to provide coverage for the three core research areas. The thesis research proposal must show how at least two of the core areas will be incorporated into the student's research. Through the thesis proposal and oral defense, the student must demonstrate 1) their general preparedness in disciplines related to their research, 2) their specific readiness to conduct the proposed research, and 3) that the proposed research is feasible, has merit, and could form the basis of a thesis if completed adequately.

If a student requires further background in either general or specific preparation, the examining Committee may recommend further courses of study and/or background preparation after the Proposal Defense. If the candidate fails this examination, and this assessment is approved by the REM Graduate Studies Committee, the student will be required to withdraw from the PhD program. Detailed information about the examination procedures, dates, and deadlines are provided in the REM PhD Handbook.

Thesis

A written thesis is based on the candidate's original research, and must meet the requirements of interdisciplinarity outlined above. When the thesis is substantially complete, the student must first present it at a REM colloquium prior to the formal thesis defence. This presentation shall form the basis of the Supervisory Committee's

final recommendation about whether the student is ready for the final defence readiness. All PhD candidates must then pass the formal thesis defence, which is conducted in accordance with University regulations. All other PhD general requirements are as outlined in SFU's graduate general regulations.

Residence Requirement

A PhD candidate must be enrolled and in residence at Simon Fraser University for the minimum number of terms as described in the "Graduate General Regulations".