



## Haskayne School of Business PhD Program: Doctoral Candidacy Requirements

The University of Calgary [Doctoral Candidacy Regulations](#) (“the Regulations”) govern the conduct of admission to doctoral candidacy at the University of Calgary. This document establishes program-specific requirements associated with the conduct of admission to PhD candidacy across the Specializations (major areas of study) at the Haskayne School of Business (HSB) under those *Regulations*.

### A. Statement of purpose

Admission into candidacy in the Haskayne School of Business (HSB) PhD Program requires that students have a solid foundation in theory development, research methods, and the relevant body of knowledge in their particular areas of study. It also requires that they have a well-developed plan for thesis research: a complete proposal with a well-motivated research question and reasonable likelihood of making a significant contribution to the literature in their area(s) of study. Finally, students must demonstrate the necessary methodological skills and background preparation to be able to successfully carry out the proposed thesis research.

### B. All doctoral students in the Haskayne PhD Program must successfully complete the following candidacy components:

1. All course requirements as identified in the Calendar
2. Written Field of Study (FoS) examination
3. Oral Field of Study (FoS) examination
4. Thesis proposal and meeting

A student must pass each candidacy component. A failure on a second attempt of components 2 to 4 will result in a requirement to withdraw from the program, as stated in the Faculty of Graduate Studies Calendar.

### Candidacy component timing:

COMPONENT	PERIOD	TIME TO COMPLETION FROM PROGRAM START
Course work	Year 1: September – Year 2: April	20 months
Written FoS examination	Year 2: Spring/ Summer or Year 3: Fall	21 to 28 months
Oral FoS examination	Year 2: Spring/ Summer or Year 3: Fall	21 to 28 months
Thesis proposal and meeting	Year 2: Summer or Year 3: Fall	21 to 28 months

## **1. COURSE WORK**

### **Course work requirements**

Doctoral students in the Haskayne School of Business must complete a minimum of 36 units (6 Full-Course Equivalents), as outlined in the [Graduate Calendar](#).

### **Timing of the course work**

Normally, students will complete their 36 units (6 FCE) by the end of the winter semester of their second year.

## **2. WRITTEN FIELD OF STUDY (FOS) EXAMINATION**

Students in the HSB PhD Program must complete a written field of study examination that requires them to integrate knowledge in their area(s) of study, including research methods. The general procedures and requirements for all written FoS examinations are given here. Further requirements and details for each Specialization can be found in Appendix A.

### **Timing of the written FoS examination**

As outlined in the **Candidacy Component Timing** table on page 1, students who start their program in the Fall semester will normally write the FoS examinations in Spring or Summer of their second year or in Fall of the third year in the program (between the 21<sup>st</sup> and 28<sup>th</sup> months from the program start). A student's readiness to write the examination will be assessed by the Supervisor, who will determine the date for the exam in consultation with the student.

### **Setting of questions for and the format of the written FoS examination**

The questions are coordinated by the Supervisor who solicits them either from the student's Supervisory Committee, or from the Supervisory Committee and doctoral course instructors (see Appendix A for guidelines in each Specialization). The format of the FoS examinations (e.g., closed-book, open-book, take-home) will be determined by each Specialization (as outlined in Appendix A).

### **Student preparation for the written FoS examination**

The student should discuss the written FoS examination format and timing with their Supervisor no later than the beginning of the second semester of their second year in the program (at 16 months).

Most Specializations do not provide reading lists, but the student should consult with their Supervisor and the Supervisory Committee for the types of questions they might ask and how to develop strategies for preparation. The student is also encouraged to consult PhD candidates in their program for advice on examination preparation.

### **Evaluation of the written FoS examination**

Overall, all student answers should be informed responses demonstrating integrated knowledge from the student's area(s) of study. The answer to the research methodology question(s) must

demonstrate critical understanding of the method(s). The student will be allowed to pass with significant deficiencies in a maximum of one *part* of the written FoS examination for Specializations with multiple parts for the written FoS examination, or in a maximum of one *question* for Specializations with a single component take-home exam, and in one *question* for the Finance Specialization. With significant deficiencies as outlined above, the student will be required to do remedial work, as described below.

The written FoS examining committee will consist of the Supervisory Committee and two additional examiners from outside of the student's Specialization.

The Examining Committee will evaluate the written FoS examination within two weeks of receiving it from the student in the form specified by each Specialization (see Appendix A). The evaluation is done in a meeting, chaired by the Supervisor, where the Committee will start with a straw vote (with the options of 'pass,' 'pass with remedial work' or 'fail'). The Committee will then deliberate and cast a final vote, with the same options. After the final vote, each Committee member will sign the written FoS examination form which will be delivered to the PPD within a day. The Supervisor will inform the student, also within a day.

The student shall pass the written examination with no more than one 'fail' vote. In the case of one 'fail' vote and one (or more) 'pass with remedial work' vote, OR, two or more 'pass with remedial work' votes, the overall evaluation of the written FoS examination is 'pass with remedial work.' With the 'pass with remedial work' judgment, no new written FoS examination will be required.

The examiner(s) triggering the requirement of remedial work will convey within one business day the recommended additional work to the Supervisor in writing, who will inform the student, also in writing. The student will conduct the remedial work, within one month, to the satisfaction of the Supervisor and the Supervisory Committee.

The oral FoS examination will not be scheduled until the student has received a 'pass' or has satisfactorily completed the required remedial work.

### **Failure and the appeal process for the written FoS examination**

More than one 'fail' vote means that the Examining Committee's recommendation for the written FoS examination is a 'fail.' Each Examining Committee member will provide a brief report to the PhD Program Director (PPD) of the exam's strengths, shortcomings and the recommended preparation for retaking the written FoS examination, within a business day of the 'fail' vote. The PPD will forward the Examining Committee's reports to the student and the Supervisor within a business day of receiving them.

In Specializations with a multi-part written FoS examination, if the Examining Committee reaches the 'fail' vote based on the student's performance in only some parts of the FoS examination, the student is required to retake only the failed part(s). The Supervisor will communicate such an outcome to the PPD within a business day of the Examining Committee's vote.

If the student passed with 'remedial work' but the remedial work is unsatisfactory to the majority of the Supervisory Committee (including the Supervisor), determined by a vote in a meeting, their recommendation for the written FoS examination is also 'fail.' In the case of a tie vote, the PPD

determines the outcome of the written FoS examination. The Supervisor and each member of the Supervisory Committee will provide a brief report to the PPD with the reasons for the 'fail' vote and the recommended preparation for retaking the written FoS examination, within a business day of the 'fail' vote. The PPD will forward these reports to the student, the Supervisor and the Supervisory Committee within a business day of receiving them.

Should the overall vote be 'fail,' the oral FoS examination is canceled.

If the student fails the written FoS examination, they have the option of attempting it a second time, within two to six months of having been notified of the failure. Students in Specializations with multiple FoS examination parts who have failed only some of the parts, must rewrite only the failed part(s) of the examination. If the student fails a second time, she or he will be required to withdraw from the program.

In the case of a 'fail' of the written FoS examination, students have the right to appeal. Students must appeal directly to the Faculty of Graduate Studies (see [Academic Regulations](#), section on *Appeals – Appeals Against Faculty of Graduate Studies Rulings*).

### **3. ORAL FIELD OF STUDY (FOS) EXAMINATION**

Students in the HSB PhD Program must successfully complete an oral Field of Study examination, in which their knowledge about their major area (Specialization), minor area (if chosen) and of relevant research methods is further tested.

#### **Timing of the oral FoS examination**

The oral FoS examination will be scheduled two to four weeks after the student's passing of the written FoS examination or after the successful completion of any required remedial work to the written FoS examination. In the case of a failed written FoS examination, the oral FoS examination is canceled. It will be re-scheduled with the re-take of the written FoS examination.

#### **Format and process of the oral FoS examination**

The oral FoS examination will be chaired by a Neutral Chair, who is a member of the academic staff and appointed by the PPD. The Neutral Chair is not a member of the Examining Committee and is non-voting.

The oral examination will be conducted by the same Examining Committee as the written FoS examination (the Supervisory Committee and two additional examiners from outside of the student's Specialization).

The oral FoS examination is closed, attended only by the Examining Committee, the Neutral Chair, and the student, and if present, the Dean or his/her representative.

The oral FoS examination shall not exceed two hours, not including the Examining Committee's deliberations.

The oral FoS examination will consist of rounds of questions by the members of the Examining Committee. Questions to the student should be clear and succinct. The student should be given

reasonable time to answer. If the student has understood the question and cannot answer, the examiner should pass to another question and not attempt to extract an answer by prolonged interrogation or by trying to lead the student.

The Neutral Chair must guard against examiners interacting with each other instead of concentrating on examining the student.

Students are allowed to take their written FoS examination questions and answers into the oral FoS examination and are allowed to take notes during the questioning.

At end of the oral FoS examination, the student will be asked to leave the room. Before discussing the student's performance, each examiner will indicate by a straw vote of either 'pass' or 'fail' for the oral FoS examinations. This will serve as a basis of discussion. The Examining Committee will cast a final vote after the discussion.

After the Examining Committee's final vote on the oral FoS examination (with the options of 'pass' or 'fail'), each member will sign the oral FoS examination form. The Neutral Chair will then call the student back into the room and inform them of the outcome, and deliver the signed form to the PPD.

### **Student preparation for the oral FoS examination**

Students are encouraged to conduct mock oral examinations with their Supervisors and Supervisory Committees, or with other students.

### **Evaluation of the oral FoS examination**

Overall, the answers to the oral FoS examination questions must demonstrate an informed and integrated understanding of knowledge in the student's field. For more information about each Specialization's evaluation of the oral examination performance, see its specific guidelines (Appendix A). In the final vote, the Examining Committee will vote for an overall 'pass' or 'fail' of the oral FoS examination.

No more than one negative vote is allowed for the student to pass the oral FoS examination. This is a recommendation, and the PPD has the authority to uphold or not the recommendation.

### **Failure and the appeal process for the oral FoS examination**

More than one 'fail' vote on the oral FoS examination means that the Committee's recommendation to the PPD is 'fail.'

If the student fails the oral FoS examination, she or he has the option of retaking it within two to six months of having been notified of the failure. If the student fails a second time, she or he will be required to withdraw from the program.

In the case of a 'fail' of the oral FoS examination, students have the right to appeal. Students must appeal directly to the Faculty of Graduate Studies (see [Academic Regulations](#), section on *Appeals – Appeals Against Faculty of Graduate Studies Rulings*).

#### 4. THESIS PROPOSAL AND MEETING

Doctoral students must complete a written thesis proposal that is approved by their Supervisory Committee in a thesis proposal meeting.

##### Timing of the thesis proposal meeting

As per the Faculty of Graduate Studies guidelines, thesis proposals must be examined by the end of the 28<sup>th</sup> month in the program. This timeline is very tight, given the course requirements of the HSB PhD program. Students should begin working on their thesis proposal as early as possible. The guideline is to have the thesis proposal meeting within two months of the completion of the oral FoS examination. The student must circulate the final proposal to the Supervisory Committee no later than two weeks prior to the thesis proposal meeting. At this time, the Supervisor will notify the student whether the Committee wants the student to give a brief presentation of the proposal at the beginning of the meeting or not.

##### Format and content of the thesis proposal

Students, in consultation with their Supervisor, may select one of the following two formats for their thesis proposal:

- a) **A manuscript thesis:** Normally, the thesis proposal will consist of proposals for at least two of the three required papers, presented as sections or chapters within the thesis proposal. The first paper proposal should be detailed, while the second and the third can be in a draft form. Each paper proposal consists of the research question and its significance to theory and/or practice, a brief literature review that situates the proposed topic within the field, a refinement of the research question into testable hypotheses (if a deductive thesis) or questions for investigation (if an inductive thesis), an outline of the methodology, and the sources and uses of data.

The maximum total length of the proposal is approximately 10,000 words, double-spaced, excluding references, tables, figures and appendices. The evaluation criteria for the proposal are outlined below under 'Evaluation' and described in more detail in Appendix B.

- b) **A monograph thesis:** A monograph thesis proposal is a plan for one in-depth research study instead of for three studies of a narrower scope. It should contain the research questions and their theoretical and/or practical significance, a brief literature review that situates the proposed topic within the field, refinement of the research questions into testable hypotheses (if a deductive thesis) or questions for investigation (if an inductive thesis), an outline of the methodology, and the sources and uses of data.

The same length requirement and evaluation criteria apply to the monograph thesis proposal as to the manuscript thesis proposal.

##### Evaluation of the thesis proposal and the meeting format

The Supervisory Committee will evaluate a student's thesis proposal. The purpose of this evaluation is to ensure that the thesis research can be carried out by the student in a reasonable time and meets the criteria outlined in the Thesis Proposal Evaluation Form (Appendix B). The expectation is that the student has a clearly defined and defensible research plan.

The evaluation is based on the Supervisory Committee's reading of the proposal and discussion with the student in a meeting, including the optional student presentation. The primary purpose of the thesis proposal meeting is to provide students an opportunity to discuss their research plan and receive constructive feedback. In the meeting, all members of the Supervisory Committee will have an opportunity to question the student on the thesis proposal and to provide feedback.

Students who are advanced to candidacy must know their related research literature well. Therefore, in the meeting, students should be able to answer questions on how their research fits into that literature: What are they contributing? Why is it important? What methodology are they planning to use? Why is this methodology appropriate? What data are they planning to use? Will they have access to it? What potential problems are they anticipating?

The thesis proposal meeting should not last more than two hours, including the optional student presentation but not including the Committee's deliberations.

The optional thesis proposal presentation is open.

### **Successful completion of the thesis proposal and meeting requirement**

The thesis proposal is approved by the Supervisory Committee when a majority of the Committee judges the proposal to demonstrate in sufficient detail that the thesis research can be carried out by the student in a reasonable time, meets the criteria outlined in the Thesis Proposal Evaluation Form (Appendix B), and the thesis is likely to meet the quality requirements for doctoral theses set by the Faculty of Graduate Studies (see [Academic Regulations](#), section on *Theses – Quality of Thesis*).

The Supervisory Committee will make a final decision on the thesis proposal by voting and will indicate their votes on the Thesis Proposal Evaluation form (Appendix B). A majority is required for any of the three voting outcomes: "Approved without revisions," "Approved with revisions", and "Not approved."

Should the Committee's vote be a tie, the PPD will decide the outcome of the thesis proposal.

The Supervisor will inform the student and the PPD about the outcome of the meeting immediately after the Committee has reached its decision within a business day. The signed Thesis Proposal Evaluation form will be submitted to the PPD.

If the Committee requires revisions to the thesis proposal, each member will provide their written feedback to the Supervisor within a week of the thesis proposal meeting. Without delay, the Supervisor will convey the feedback to the student, who will incorporate it within one month, to the satisfaction of the Supervisor. No new Thesis Proposal Meeting will be required, but the Supervisor will inform the PPD in writing when the student's revisions have been satisfactorily completed.

### **Failure and the appeal process for the thesis proposal**

If the majority of the Committee votes 'not approved', the Committee's recommendation to the PPD will be 'fail.' In the case of a failed thesis proposal, each Supervisory Committee member will provide a brief report about the strengths and shortcomings of the proposal and the suggested remedial work on the proposal for a second attempt for approval to the Supervisor and the PPD within a week of the thesis proposal meeting. The Supervisor will share the reports with the student without delay.

In the case of a 'fail,' the student can re-submit the revised proposal once, no earlier than two and no later than six months of the thesis proposal meeting. Another thesis proposal meeting will be required, scheduled at a minimum of two weeks after the student has re-submitted the thesis proposal.

The student will be required to withdraw from the program upon a second failed thesis proposal. In the case of a failed thesis proposal, students have the right to appeal. Students must appeal directly to the Faculty of Graduate Studies (see [Academic Regulations](#), section on *Appeals – Appeals Against Faculty of Graduate Studies Rulings*).

### **EXTENSION TO CANDIDACY REQUIREMENT DEADLINE**

Students who will not complete their candidacy requirements by the end of their 28<sup>th</sup> month in the program must have an extension request approved by the FGS. If a student needs longer than 28 months to complete the Candidacy requirements, an extension to program may be granted by the Faculty of Graduate Studies on the basis of a recommendation from the Graduate Program Director that specifies the grounds for the extension and provides a detailed schedule for the completion of the program. Forms can be found on the Faculty of Graduate Studies website at: [grad.ucalgary.ca/current/managing-my-program/registration](http://grad.ucalgary.ca/current/managing-my-program/registration).

The completed and signed form must be submitted to the GPA to be sent to FGS for approval. Please note that the form should be submitted by the end of the 27<sup>th</sup> month in the program to allow time for processing.



## **APPENDIX A – SPECIALIZATION-SPECIFIC WRITTEN FIELD OF STUDY (FoS) EXAMINATION GUIDELINES**

### **Accounting (ACCT)**

#### **Format of Written FoS Examination**

The first part of the exam will follow a closed-book, sit-down format, consisting of 2 days of 4 hours per day, in which the student answers 3 questions per day (total of six questions). In addition, there will be a 48-hour take-home critique assignment, which will be given out (by e-mail) twenty-four hours after the second day of the closed-book exam is completed. All parts of the exam should be completed in one week.

#### **Content of Written FoS Examination**

For the closed-book, sit-down exam, students are required to answer three questions out of a maximum of five questions provided on each day. The questions will cover material from the following seminars:

(1) Acct 799.01 (Financial Accounting Seminar) – questions that test the theories, research methods, and applications most commonly used in the field.

(2) Acct 799.02 (Managerial Accounting Seminar) – questions that test the theories, research methods, and applications most commonly used in the field.

At least one required question will be based on material covered in a third Accounting seminar chosen by the student with the advice of the Supervisor.

#### **Setting of Questions for Written FoS Examination**

The Supervisor(s) will coordinate the questions and will ask the instructors who taught the Accounting seminars to supply questions.

#### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization. Students should prepare for the critique assignment by reading articles that describe the elements of high quality academic research in accounting (such as Kachelmeier, 2004; Evans et al., 2015) and consulting with faculty members.

#### **Take-home Critique Assignment**

This assignment will require the student to prepare a review report on an unpublished academic research paper. The review report should meet the review standards of a high-quality journal in accounting, such as *Contemporary Accounting Research*. The review should evaluate the importance and relevance of the research question in the context of the existing literature, critique the research methodology, assess the rigor of the analysis, and comment on the appropriateness of the conclusions. The review assignment will be selected by the student's Supervisor. The review should be about 8 to 10 pages in length (double-spaced).

#### **Submitting the Written FoS Examination answers**

The student will submit his/her answers to the closed-book exam on a USB stick (or similarly secure data transfer method) provided to the Area Administrator who immediately emails them to the Supervisor. The student will email the take-home answer to the Area Administrator and Supervisor. The Supervisor will circulate all answers to the Examining Committee within two days of receiving all parts of the exam.

### **Submitting the Take-home Critique Assignment**

This assignment should be submitted by e-mail to the Area Administrator and the Supervisor within forty-eight hours of receiving the exam.

Evans, John Harry, et al. "Points to Consider When Self-Assessing Your Empirical Accounting Research." *Contemporary Accounting Research* 32.3 (2015): 1162-1192.

Kachelmeier, Steven J. "Reviewing the review process." *Journal of the American Taxation Association* 26.s-1 (2004): 143-154.

### **Business Technology Management (BTMA)**

#### **Format of Written FoS Examination**

The exam will be in three parts:

Part I: 4 or 5 questions, possibly multipart, closed book, 6 hours in one day. Although the number of questions in the written FoS examination varies between 4 and 5, the Examining Committee will adjust its expectations for student performance based on the level of difficulty and the number of questions, to ensure consistency across students.

Part II: Review of a paper, 24 hours, maximum 6 pages, double-spaced, 11pt font, one-inch margins. The review should include a 1/2 page summary of the paper, with the remainder divided into major and minor reviewer points. There should also be a justified final recommendation for accepting, revising and resubmitting, or rejecting the paper.

Part III: Research design based on a single research question, 24 hours, maximum 10 pages, double-spaced, 11pt font, one-inch margins. The research design will depend on the student's area of interest. Some details will be given in the question.

All parts of the exam should be completed in one week.

#### **Content of Written FoS Examination**

Students are required to answer all questions. All parts of the exam will test research knowledge of the Specialization.

*For Part I, a significant component of this knowledge will be material and methods covered in BTMA PhD coursework. The themes to be covered follow research in the economics of information systems and in quantitative information technology systems. Methodologies covered are analytical modeling and quantitative empirical analyses.*

*For Part II, preparation comes from the presentations and written reviews of articles students will have done as part of their BTMA PhD coursework.*

*For Part III, preparation comes in the form of written student papers submitted as part of BTMA PhD coursework, and of the common course leading to a first summer paper.*

#### **Setting of Questions for Written FoS Examination**

The Supervisor will coordinate the questions. Questions are solicited from the research faculty

(assistant, associate, and full professors) in the Specialization. The Supervisor organizes the exam from the solicited questions.

### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization.

### **Submitting the Written FoS Examination answers**

The student will submit his/her answers to the closed book exam in a USB stick provided to the Area Administrator who immediately emails them to the Supervisor. The student will email the take-home answers to the Supervisor. The Supervisor will circulate all answers to the Examining Committee within a day.

**Energy Management and Sustainable Development (EMSD)—See Strategy and Global Management, Energy Management and Sustainable Development, Entrepreneurship and Innovation (SGMA/EMSD/ENTI)**

**Entrepreneurship and Innovation (ENTI)—See Strategy and Global Management, Energy Management and Sustainable Development, Entrepreneurship and Innovation (SGMA/EMSD/ENTI)**

### **Finance (FNCE)**

#### **Format of Written FoS Examination**

The exam will be a closed-book, sit-down, consisting of 2 two consecutive days of 3 hours per day, in which the student answers 2 questions per day.

The student are permitted to bring formula sheets to the exam, using their courses as a guideline for as to which formulas to include. However, any other formulae, even not covered in the courses, are permitted. The formula sheets should not include either proofs or examples of problems. No calculators or computers are needed for the exam; students will write their answers in exam booklets.

#### **Content of Written FoS Examination**

The Supervisor, in consultation with the student, will select four courses the instructors of which will be asked to submit questions. Students are required to answer all questions. The questions will focus on material covered in the selected four doctoral courses.

#### **Setting of Questions for Written FoS Examination**

The Supervisor will coordinate the questions by asking only the Supervisory Committee and the instructors of the courses agreed upon by the Area to provide questions.

### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization.

### **Submitting the Written FoS Examination answers**

The student will submit his/her answers to the sit-down examination to the Supervisor. The Supervisor will circulate all answers to the Examining Committee within a day.

## **Marketing (MKTG)**

### **Format of Written FoS Examination**

The exam will be a 20-day take-home, consisting of three questions. The maximum total length is 45 pages (double-spaced, 12pt font, 2 cm margins) for the entire exam, including all references, appendices, and attachments.

### **Content of written FoS Examination**

Students are required to answer all questions. One question will test research and statistical methods, one question will test theory, and one question will test general field knowledge.

### **Setting of Questions for Written FoS Examination**

The Supervisor will coordinate the questions by asking only the Supervisory Committee for suggestions.

### **Preparing for Written FoS Examination**

Each member of the Supervisory Committee will provide a partial list of readings pertaining to his/her suggested question for the written FoS Exam. The student is expected to go beyond the partial list provided by the Committee and compile a more comprehensive list of readings relevant to answering the exam questions.

### **Submitting the Written FoS Examination answers**

The student will submit his or her answers via email his/her Supervisor who will circulate them to the Examining Committee within a day.

## **Organizational Behaviour and Human Resources (OBHR)**

### **Format of Written FoS Examination**

The exam will be a 20-day take-home, consisting of three questions. The total maximum length is 45 double-spaced pages (12-point, Times New Roman font, one-inch margins) for the entire exam, including all references, appendices and attachments.

### **Content of Written FoS Examination**

Students are required to answer all questions. Of the three questions, at least one question will test research methods, one question will test theory, and one question will test applications or general field knowledge.

### **Setting of Questions for Written FoS Examination**

The Supervisor will coordinate the questions by asking only the Supervisory Committee for suggestions.

### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the written FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization.

### **Submitting the Written FoS Examination answers**

The student will submit his or her answers via email his/her Supervisor who will circulate them to the Examining Committee within a da

## **Operations and Supply Chain Management (OSCM)**

### **Operations and Supply Chain Management (OSCM) Format of Written FoS Examination**

The written FoS examination is composed of two parts: an in-class test and a take-home assignment. The in-class test will follow a sit-down format, consisting of two consecutive days of four hours per day, in which the student receives and answers two sets of questions per day (equally weighted four sets in total; each set can contain one or more questions). The test will start no later than 11:00 am on each day. Each set will consist of question(s) based on a PhD course that the student has completed. The in-class test will be a closed-book exam other than the materials (course notes, textbook(s), cheat sheet, etc.) provided by the examining committee, if any, for each set of questions. The take-home exam will be based on two articles, which will be sent to the student by e-mail within an hour after the student submits his/her answers to the second session of the in-class test. The student will have 48 hours to complete the take-home exam. . The total maximum length of this exam is 20 pages (letter-sized paper, 1.5 line spacing, 12 pt Times New Roman font, 2 cm margins on all sides), excluding references, appendices, and attachments.

### **Content of written FoS Examination**

For the in-class test, students are required to answer all questions asked in each day. Each set will be from a different course that the student has successfully completed during his/her PhD studies. For the take-home exam, the student will write a summary and critique of the articles assigned, and answer one additional question about each article.

### **Setting of Questions for Written FoS Examination**

In consultation with the Examining Committee, the Supervisor will select four courses from which question(s) will be asked in the in-class test. The selected courses will be finalized upon approval of PhD Program Director. The instructors of these four courses will be asked to prepare the question(s), provide a list of references (textbooks, articles, lecture notes, etc.) for the student to study, and specify the material(s) that the student will have access to, if any, during the test. The Supervisor will inform the student six weeks before the first day of the in-class test, which courses are selected, the list of recommended study materials, and which materials the student will have access to, if any, for each set of question(s) during the exam.

For the take-home exam, the Examining Committee will create a pool of up to 10 articles and the Supervisor will send them to the student no later than six weeks before the first session of the in-class test. The Supervisor will select two articles from this pool and prepare the take-home exam questions based on these two articles in consultation with the Examining Committee. The Supervisor will inform the student which two articles are selected including the corresponding question(s) within an hour after the student

submits the answers to the second day of the in-class test.

### **Preparing for Written FoS Examination**

The Supervisor will send the list of study materials specified by the instructors for the in-class exam and provide the pool of articles for the take-home exam to the student six weeks before the first day of the in-class exam. No other readings will be assigned for the take-home exam besides the articles specified.

### **Submitting the Written FoS Examination answers**

The student will submit his or her written answers of the questions in the in-class exam to the Supervisor. The Supervisor will immediately forward the answers to each set of question(s) to the corresponding instructor who provided the question(s). Each instructor will evaluate the answers to their set of question(s) and mark them as Pass or Fail. Marked sheets will be sent back to the Supervisor within 10 days along with feedback about the performance of the student. The supervisor will circulate the instructor's Pass or Fail mark and feedback to the Examining Committee within a day.

The student will submit his/her typed or scanned answers of the questions in the take-home exam to the Supervisor by e-mail by 4:00 pm after the 48-hour time limit is finished. The Supervisor will immediately circulate these answers to the Examining Committee.

## **Risk Management and Insurance (RMIN)**

### **Format of Written FoS Examination**

The exam will be in two parts. Part I: A sit-down, two questions, closed-book, 3 hours in one day. Part II: A 14-day take-home, consisting of three questions. The total maximum length for Part II is 40 pages, including all references, appendices, and attachments (double-spaced, 12-point font, one-inch margins).

### **Content of Written FoS Examination**

Students are required to answer all questions. Sit down: Questions will test foundational topics covered in Risk Management & Insurance Doctoral Seminar and Finance seminar. Take-home: At least one question will test research methods and at least one question will test applications or general field knowledge.

### **Setting of Questions for FoS Examination**

The Supervisor will coordinate the questions by asking only the Supervisory Committee for suggestions.

### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the written FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization.

### **Submitting the Written FoS Examination answers**

The student will submit his/her answers to the closed book exam in a USB stick provided to the Area Administrator who immediately emails them to the Supervisor. The student will email the take-home answers to the Supervisor. The Supervisor will circulate all answers to the Examining Committee within a day.

## **Strategy and Global Management, Energy Management and Sustainable Development, Entrepreneurship and Innovation (SGMA/EMSD/ENTI)**

### **Format of Written FoS Examination**

The exam will be a 20-day take-home, consisting of three questions. The total maximum length is 40 pages (double-spaced, size 12 font, 2 cm margins) for the entire exam, including all references, appendices, and attachments.

### **Content of Written FoS Examination**

Students are required to answer all questions. One question will test research methods, one question will test theory, and one question will test applications or general field knowledge. If there is to be an additional question, it will be on the Foundations of the Theory of the Firm.

### **Setting of Questions for Written FoS Examination**

The Supervisor will coordinate the questions by asking only the Supervisory Committee for suggestions.

### **Preparing for Written FoS Examination**

The Specialization will not provide a list of readings for the written FoS Exam; rather, the student will compile readings from course work, in consultation with the Supervisor and the members of the Specialization.

### **Submitting the Written FoS Examination answers**

The student will submit his or her answers via email his/her Supervisor who will circulate them to the Examining Committee within a day.

**Appendix B - Thesis Proposal Evaluation Form**

Student name: \_\_\_\_\_

Meeting date: \_\_\_\_\_

The Committee uses the following criteria in evaluating the thesis proposal. The Committee will evaluate whether the student:

- Understands the relevant literature
- Has clearly defined research question(s) and research plan
- Demonstrates knowledge of appropriate methods, and, where applicable, data
- Understands the relationship of the research question and proposed research contribution to the existing literature in the field
- Demonstrates sufficient independence from supervisory input
- Demonstrates competence as a writer and is able to present work and answer questions clearly
- Demonstrates adequate productivity given the timeline to candidacy

The three possible outcomes of the thesis proposal evaluation, determined by a majority vote, are: approve, approve with revisions, or do not approve.

If the outcome is ‘approve with revisions,’ each committee member will write a brief report outlining their concerns and recommendations and will send it to the student’s primary Supervisor with one week of the Thesis Proposal Meeting. The Supervisor will ensure the student addresses the concerns. No new Thesis Proposal Meeting is required.

If the outcome is ‘do not approve,’ each committee member will write a brief report outlining their concerns and suggested remedial work and will send a copy to the student’s primary Supervisor and the PhD Program Director with one week of the Thesis Proposal Meeting. The Thesis Proposal Meeting will be rescheduled after student has completed the revisions.

**Please indicate your votes in the table below by placing your initials in the appropriate box and sign your names in the same order below the table. The Supervisor will submit the signed form to the PhD Program Director within a business day of the Thesis Proposal Meeting.**

<b>OUTCOMES</b>	<b>Approve</b>	<b>Approve with revisions</b>	<b>Do not approve</b>
Supervisor			
Committee member 1			
Committee member 2			
Co-supervisor (if applicable)			

Supervisor Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Committee member name: \_\_\_\_\_

Signature: \_\_\_\_\_

Committee member name: \_\_\_\_\_

Signature: \_\_\_\_\_

(Co-Supervisor name): \_\_\_\_\_

Signature: \_\_\_\_\_