



Doctoral Programs

Policies and Procedures

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PhD Degree Requirements Checklist

(Current as of August 2011)

The Wharton School policies and procedures that are reported in this document define the minimum standards to which all of the School's Doctoral concentrations and programs must adhere/ These policies and procedures also present guidelines for students regarding course work, examinations and dissertation research. Additional requirements specific to each department/program are listed in the document appendices.

****IT IS ESSENTIAL THAT ALL DOCTORAL STUDENTS READ AND ADHERE TO THESE REQUIREMENTS **
OFTEN, DOCTORAL REQUIREMENTS WILL CHANGE WHILE THE STUDENT IS IN WHARTON DOCTORAL
PROGRAMS. IN SUCH CASES, THE STUDENT MAY BE HELD TO THE NEW STANDARDS/REQUIREMENTS. THIS
WILL BE A DECISION BY THE DEPARTMENTAL DOCTORAL COMMITTEE AT THE TIME OF POLICY CHANGE.**

1. Organization and Governance

1.1. Policy Latitude

These policies and procedures are not intended to impose uniform regulations over all programs. A program is free to impose stricter policies than the ones laid out here; however, if it does so it is responsible for the administrative control of these policies. Any such policies and procedures must be approved by the Wharton Doctoral Executive Committee prior to implementation, as described below. Moreover, these stricter policies must be recorded in writing and distributed to all students affected when they enter the program. The Ph.D. degree is awarded by the Graduate Council of the Faculties of the University of Pennsylvania. Accordingly, students in the Wharton Doctoral Programs are also subject to the rules and regulations established by that body. These are published in the Graduate Academic Bulletin.

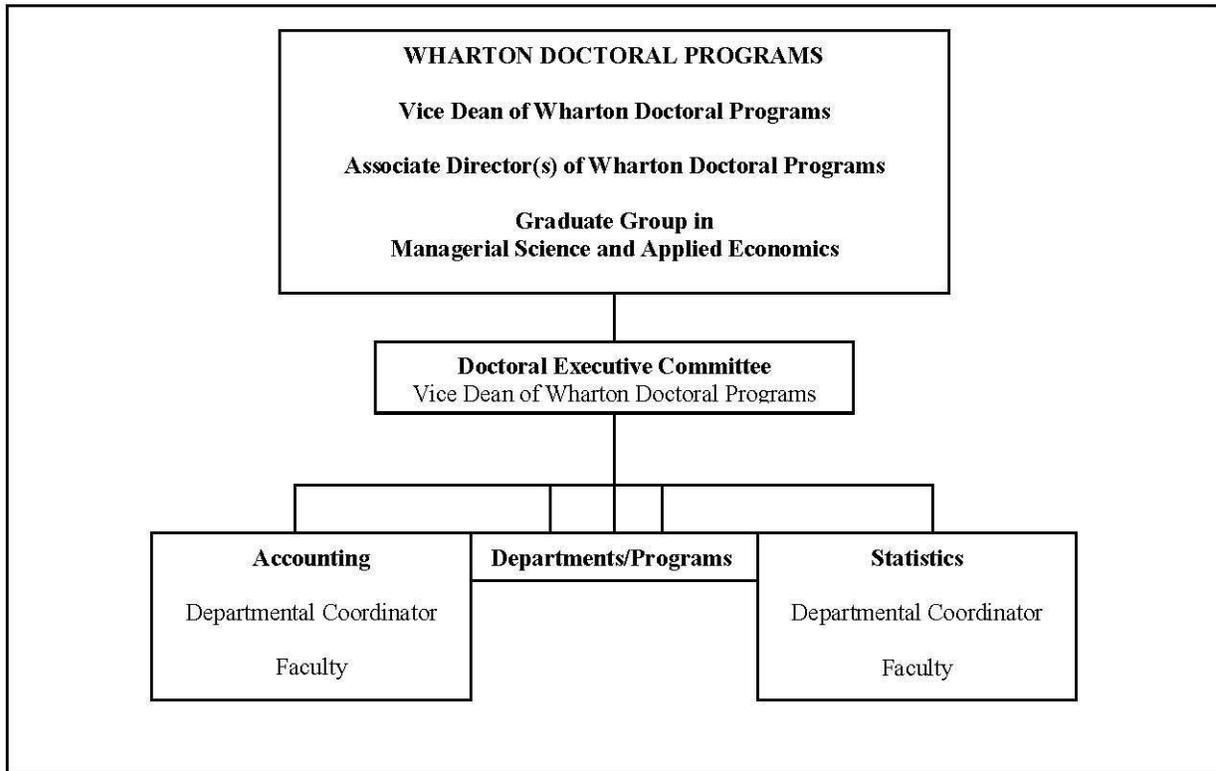
1.2. Overall Administrative Structure

The Wharton Doctoral Programs report for academic matters to the Faculty of the Wharton School and for administration to the Dean of the Wharton School. Matters relating to standards and policies concerning degree requirements are normally decided by the Wharton Doctoral Executive Committee in consultation with the Wharton Faculty, subject to overall guidance and ultimate governance by the Associate Provost for Graduate Education and as advised by the Graduate Council of the Faculties of the University of Pennsylvania.

1.3. Organization of the Wharton Doctoral Programs

Figure 1 shows the organizational structure of the Wharton Doctoral Programs. Each Department or Program is represented on the Doctoral Executive Committee; normally by the faculty member responsible for Doctoral Programs in the Department or Program in question (hereinafter we refer to this individual as the Departmental Coordinator). The Doctoral Executive Committee has the primary responsibility for program review, course approvals and other policy matters, subject in certain areas to approval by the entire Wharton Faculty as described in the Policies and Procedures herein.

FIGURE 1: ORGANIZATION OF WHARTON DOCTORAL PROGRAMS



Departmental Coordinators have the primary responsibility of conveying the concerns of their respective departments and programs to the Doctoral Executive Committee for advice and consent. They also have primary responsibility for local record keeping and monitoring of students in their respective programs concerning student progress, student advisors and financial aid. Students should normally first consult their Department Coordinator on problems or policy questions that they may have.

At the University of Pennsylvania, the organizations responsible for graduate instruction and the degrees are groups of faculty called Graduate Groups. In many cases, such as history and mathematics, the graduate group has a counterpart department. Other graduate groups do not have a traditional counterpart department or school. Instead, they are composed of appropriate faculty from a variety of existing departments and schools with the aim of enhancing the interdisciplinary nature of the field of study.

The Graduate Group of Managerial Science and Applied Economics covers all doctoral education in the Wharton School and offers programs in accounting, applied economics (includes: business and public policy, insurance and risk management and real estate), business ethics and legal studies, finance, health care management and economics, management, marketing, operations and information management, and statistics.

1.4. Course Approvals and Program Structure Changes

As established by the Wharton Faculty Meeting of January 13, 1987, all changes in courses offered and program structure must be approved by the Wharton Doctoral Executive Committee. Any proposed change that at least one member of the Executive Committee believes to be relevant and important to the whole program (and school as a

whole) will also be referred to the Wharton faculty for consideration. All other changes are approved routinely by the Executive Committee alone, without further consultation or referral to the Wharton faculty.

2. Admissions and Financial Aid

2.1. Program Admission Categories

An applicant who is accepted for admission to the Wharton Doctoral Programs will be admitted as a regular full-time doctoral student. The Wharton Doctoral Programs has no other category of admissions.

2.2. Visiting Doctoral Fellows and Visiting Scholars

In addition to regular doctoral students, Wharton Doctoral Programs may accept a limited number of individuals as Visiting Doctoral Fellows. These appointments will normally be made in conjunction with a Department, and they are intended for visiting graduate students who have not yet received a Ph.D. Scholars who have received the doctorate and who have specific and limited research and education purposes are also accepted as Wharton Visiting Scholars from other institutions/ Such students' stay in the program is usually limited to one year but can be extended to eighteen months. Visiting Doctoral Fellows and Visiting Scholars must have a faculty sponsor in the program before entering. Each application will be decided on an individual basis. Visiting Doctoral Fellows will not be considered for admission as regular doctoral students while they are in residence; that is, they must return to their home country or institution for at least 1 year before applying for admission to the Wharton Doctoral Programs.

2.3. Admissions Procedures

Students enter the Doctoral Program of the Wharton School at the beginning of the Fall term. All applications, together with all supporting material (including letters of recommendation, grade transcripts, and either GMAT or GRE scores), must be received by the Doctoral Programs office no later than December 15 of the year before admission is desired. Exceptions may be made only in special circumstances with approval from the Vice-Dean of Wharton Doctoral Programs.

All applicants are expected to take either the GMAT or the GRE depending on departmental requirements. Except under unusual circumstances, applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL) examination. The admissions process is a multi-step procedure. Applications are viewed by a committee determined within the department, almost always consisting of at least the Doctoral Coordinator and a few other faculty members. Candidates approved from that body are then sent to the Vice-Dean of Wharton Doctoral Programs for approval. Approval of both the department and Vice-Dean is required.

2.4. Registration Procedures

All new students are expected to introduce themselves to the Doctoral Programs Office, Suite 430 Steinberg Hall-Dietrich Hall, when they arrive on campus. At that time they will be advised of registration procedures, dates and deadlines. Further information will be given at a required introduction to Wharton Doctoral Programs, normally held the first week of classes in the Fall semester of the candidate's first year/

2.5. Financial Aid

Students admitted to most Ph.D. programs receive multi-year financial packages to cover tuition, fees, health insurance and a living allowance or stipend. The terms of the award may vary according to field of study, and within department. Contact individual programs for details. Time until completion of the PhD degree, while it varies by field, is typically 5-6 years for a student entering with a bachelor's degree.

The form of the support is determined by the student's department/ Support of continuing students' funding will be decided jointly by the Doctoral Programs Office and the given student's department. Good standing in the program is required for both continuation and financial aid.

3. Active Status, Leaves, and Program Transfers

3.1. Maintaining Active Status

Matriculated students are expected to be registered every semester for either course work or dissertation status. The exception to this rule is an approved leave of absence, which is only granted under exceptional circumstances to students not yet on dissertation status. Students who are not on an approved leave of absence and who have not registered for any one semester will be considered to have withdrawn from the program. To maintain a student visa, international students must be enrolled for at least three courses per semester, or be on dissertation status.

3.2. Tuition Policies*

Tuition and fees are due in August for the Fall term and in January for the Spring term. Prior to candidacy, students must pay tuition for at least one course each semester. Candidates no longer paying course tuition must pay general dissertation tuition each semester, whether they are on or off campus. Students and candidates who fail to pay their tuition or dissertation fee for any semester will be considered to have withdrawn from the program. Students who have withdrawn must reapply for admission in order to regain active status in the program.

*See http://www.upenn.edu/provost/academic_rules for more information on the University of Pennsylvania tuition policies for Ph.D. students.

3.3. Leaves of Absence

Leaves of absence are only granted under extenuating circumstances to students who have not yet been admitted to candidacy and who are in good standing. Leaves are usually allowed for a period of one semester to one calendar year. Leaves of absence will not be granted for a total of more than three years. To request such a leave, the student must complete a LEAVE OF ABSENCE REQUEST FORM and submit it to the Vice Dean of the Wharton School's Doctoral Programs/ It should include the reason for requesting the leave, the time period sought, and the student's plans for returning to the University to complete the requirements for the degree/ Before a leave is granted, it must be approved by the Department Coordinator in the student's concentration or program as well as by the Vice Dean. Time spent on an officially approved leave of absence is not counted in the eight-year time limit on degree completion. See information on [Family Friendly Policies](#) for more details.

3.4. Transfers between Wharton Doctoral Programs

Any student currently enrolled in a graduate program within either the Wharton School, or elsewhere at the University of Pennsylvania, who wishes to transfer to a different doctoral program/concentration within the Wharton School must inform their current program and then apply for admission to that Wharton doctoral program. All transfers from outside the Wharton school must go through the normal Wharton admissions process.

3.5. Change of Address

Regardless of whether a student in the doctoral program is on or off campus or on a leave of absence, it is the student's responsibility to stay in touch with his or her advisor and to notify the Doctoral Programs Office of any change of address that may occur. Change of address information should be sent to:

Wharton School Doctoral Programs
University of Pennsylvania
The Wharton School
Steinberg Hall-Dietrich Hall, Suite 430
Philadelphia, PA 19104-6302

or by email to Wharton Doctoral Program's Office Associate Director. It is also the student's responsibility to see that he or she remains current on any changes in the program rules or regulations.

4. Transfer of Course Credit*

4.1. Credit for Graduate Work at Other Universities

Of the total number of course units of graduate work required for the doctoral degree, at least twelve units must be taken at the University of Pennsylvania. Students may receive up to eight units of credit for graduate work at other universities. Specific departments may set lower limits. A student who desires credit for previous course work should submit a written request to his or her Departmental Coordinator. That request should be submitted during the first year in the program. The Coordinator will decide whether to grant credit based on the standards of the previous work and its relevance to the student's program/ The Coordinator's recommendations should be sent in writing to the Vice-Dean of Wharton Doctoral Programs and should be filed with the Wharton Doctoral Programs Office/ The decision of the Coordinator is final, but it must be filed in the student's folder in the Doctoral Programs Office. The formal transfer of credit does not take place until the end of the first year of doctoral study.

*Request for Transfer of Credit Form can be found on Wharton Ph.D. Resources website:

[http://www.wharton.upenn.edu/doctoral-inside/files/WHARTON DOCTORAL PROGRAMS Transfer of Credit.pdf](http://www.wharton.upenn.edu/doctoral-inside/files/WHARTON_DOCTORAL_PROGRAMS_Transfer_of_Credit.pdf)

4.2. Credit for Courses Taken in the Wharton MBA Program

Precisely the same rules as above apply to transferring credits from the Wharton MBA Program. Upon the Coordinator's approval of MB ! course work based on standards, relevancy, and departmental rules, a maximum of eight MBA course credits may be transferred. No MBA courses will be transferred with a grade below an A- (or its equivalent)/ !s above, the request for such a transfer should be submitted during the student's first year in the Ph.D. Program.

5. Requirements and Monitoring

5.1. Phases of the Program

The Wharton Doctoral Programs consist of two distinct phases: pre-candidacy and candidacy.

During the pre-candidacy phase,

- student completes the required course-work,
- preliminary examinations,
- any requirements imposed by the student's specific Department or Program such as additional qualifying examinations and research papers.

Upon satisfying all of these requirements, the student applies (typically in writing) to their Departmental Coordinator for admission to candidacy. The Coordinator will review the student's record and make a recommendation to the Vice Dean. Upon approval by the Vice Dean, the student is admitted to candidacy.

The candidacy phase comprises

- preparation and defense of the dissertation proposal,
- doctoral dissertation (see below and in Section 6 of this document), and
- final defense of the dissertation.

*DISSERTATION

The student and dissertation supervisor meet regularly (at least twice a year and, in many cases, much more frequently) to establish expectations and review the progress of the student's research/

Upon advancement to candidacy, each student has a Dissertation Committee consisting of at least three faculty members (including at least two members of the Wharton graduate group), which may include the Supervisor/Advisor. The Dissertation Committee meets at least once annually with the student to review the student's progress/ The student prepares an !n!ual Dissertation Progress Report and the committee gives timely feedback (within one month) and confirms whether progress is satisfactory. A copy of the signed progress report is

submitted to the Supervisor/Advisor and Graduate Group Chair and is documented by the school in the student's PhD Worksheet.

Dissertations based on joint work with other researchers are allowed, provided that, in such cases, a unique and separate dissertation is presented by each degree candidate. The candidate must include a concise account of his or her contribution to the whole work. Authorship of a dissertation by more than one degree candidate is not allowed.

5.2. Annual Performance Reviews

The Doctoral Coordinator will conduct an annual review of each student's performance/ The review will be conducted at the end of the Spring term and, except under unusual circumstances, will be completed by June 30. The review will encompass the student's grades, including incompletes, preliminary and qualifying examinations, required papers, and other relevant benchmarks. Where necessary, the Coordinator will meet with each student to discuss the results of the review and recommend any appropriate remedial action. The Coordinator will inform the student in writing of the results of his or her performance review. Within ten days after the review, students who have missed or failed preliminary examinations must execute agreements for taking the exams by specific dates to be approved by the Coordinator.

5.3. Grade Standards

At the end of the Spring term of every year, each student's grade performance for the previous twelve months will be reviewed. A student who does not achieve at least a B average for all courses taken or reported during that twelve month period (including final grades for incompletes for previous work) will normally be asked to leave the Program/ For purposes of computing an average, the grade suffixes "+" or "-" count as one third/ A student achieving less than the B average described above must submit a written statement in support of his or her continuation in the program. Failure to initiate the written appeal results in an automatic withdrawal from the program by the start of the next academic year. **The Departmental Coordinator is responsible** for seeing that the faculty in the student's concentration or program review the student's performance and make a recommendation as to whether the student should be permitted to continue in the program. They will also determine what conditions, if any, must be met over and above the School's and the program's usual requirements/ The faculty's recommendations should then be passed on to the Vice Dean of the Doctoral Programs, who will determine whether the student is to be terminated or not. Permission to continue will be granted only under the most extenuating circumstances and only when the actual average is quite close to B.

5.4. Statistics Requirement

According to the requirement established by the Wharton Faculty in the November 4, 1986, meeting, as elaborated and approved by the Policy Committee on February 5, 1987, all Wharton doctoral students must demonstrate competency in statistics. Departments may establish special requirements for their students depending on their area of specialization. All students, however, are required to demonstrate proficiency in the material covered in one of the following course combinations:

1. **STATISTICS 500-501**
2. **STATISTICS 520-521**
3. **STATISTICS 510-520**
4. **STATISTICS 550-551**
5. **ECONOMICS 705-706**

Descriptions for each course may be found in the University Course Register on the Registrar's website: <http://www.upenn.edu/registrar/>

Exceptions to these sequences, or the ability to "mix and match" courses from these sequences, is allowed- however, must receive written approval from the current doctoral coordinator of the statistics department program.

The student must obtain a grade of B- or better in each required course, or pass a waiver examination. Alternatively, departments may establish student competency in statistics by a preliminary examination, administered by the Economics or Statistics Department as appropriate, covering all the material of their required course sequence.

Current guidelines and procedures for retaking preliminary examinations will prevail for the statistics waiver exam. In particular, no student will be allowed to take the examination more than twice, except under unusual circumstances, as decided individually by the Vice Dean and the Departmental Coordinator.

5.5. Preliminary Examinations

Preliminary examination requirements vary by Department. Students should consult the Wharton Doctoral Catalog for the requirements of specific Departments (and the materials in the appendices to this document). A preliminary examination is defined as an examination or series of examinations designed to test the student's mastery of the subject matter in a given field of study. Administratively, a preliminary examination is any examination, which must be completed after enrollment in the program in order to gain admission to candidacy. A doctoral program student who twice fails any preliminary examination required by the student's department or program will ordinarily be dropped from the program. However, a student who fails twice may, under extenuating circumstances, appeal for a third opportunity to take the examination. The appeal should be addressed in writing to the Departmental Coordinator in the student's concentration or program/ First, the Coordinator must evaluate the request and submit a written recommendation to the Vice Dean of Doctoral Programs. Second, the appeal must be evaluated by the Vice Dean.

In order for the student to be granted a third opportunity to take a preliminary examination, the student's appeal must be approved by both the Coordinator and the Vice Dean. Appeals will only be considered for possible approval in situations where there are extenuating circumstances/ The student's written appeal should clearly state special conditions that the student feels justify the request.

5.6. Teacher Development Program (TDP)

All PhD candidates in the Wharton Doctoral Programs are required to participate in a Teacher Development Program (TDP). The TDP contains two parts. The first part, conducted in the first week of classes in the student's first year, is a half-day workshop on communications skills that is meant to both educate the doctoral student and make him/her aware of areas of needed improvement. This workshop is mandatory and is part of the introduction to Wharton's Doctoral Programs/

The second part, a four-module TDP workshop, has the focus to enable doctoral students to improve their presentation skills, with the intent of improving academic job placement. In particular, most students will use TDP to help improve their academic job talks when going on the job market.

Doctoral candidates are encouraged to participate in the four-module workshop in their third year or later, but in some cases departments may wish for second year students to take it. Occasionally, waivers for the four-module workshop may be granted by a given department's doctoral coordinator under the following conditions:

- Significant prior teaching experience
- Recognized teaching awards
- College-level education courses

These waivers will be granted by individual departments. The department waiver, if given, must be registered with the Wharton Doctoral Office in writing.

5.7 University PhD Degree Requirements

Above and beyond requirements stipulated in this document, the University of Pennsylvania has guidelines for PhD requirements. A more detailed description can be found at:

http://www.upenn.edu/provost/educational_policies_publications.

6. Dissertation Stage*

Writing a dissertation is an intense process of interaction between the student, the dissertation advisor and other interested faculty. The formal process takes place in two phases. In the first phase, the student prepares a proposal indicating the nature of planned dissertation research and its intended contributions. In the second phase, after the proposal has been approved, the dissertation research unfolds under the careful guidance of the student's dissertation advisor/

*Refer to section 5.1 Phases of the Program under **Section 5 Requirements and Monitoring** above.

6.1. Dissertation Proposal Phase

The student is encouraged to consult faculty members with whom he or she shares research interests to seek their advice and assistance in formulating a dissertation proposal topic. After consultation with the student and interested faculty members, the Departmental Coordinator in the student's concentration or program will (formally) appoint a dissertation advisor. Of course, the choice of advisor is ultimately up to the student, but it must be approved by the given department's coordinator/ The advisor has primary responsibility for advising the student on the dissertation. The preparation of a dissertation proposal should begin relatively early in the student's studies in order for the student to have early feedback on the feasibility and desirability of planned

dissertation research. The primary purpose of the dissertation proposal is to provide constructive feedback to the student. The proposal does not constitute an implicit or explicit contract on the ultimate content or acceptability of a dissertation. This can only be decided as part of the evolving dialogue between student and faculty members as the dissertation research proceeds. In consultation with the student, the advisor will recommend a dissertation committee. The function of the committee is to provide advice concerning the research, to participate in the proposal defense and dissertation defense, and to decide whether the proposal and the dissertation satisfy the standards of the Wharton Doctoral Programs.

The dissertation committee shall consist of no fewer than three members, including the dissertation Advisor, and no more than five members.

- At least **three must come from the standing faculty of the University of Pennsylvania**
- And no more than **one committee member may come from outside the University of Pennsylvania.**
- **A clear majority of the committee, including the committee chair, must come from the standing faculty of the Wharton School.**
- At least **two of the standing faculty committee members must hold primary appointments within the department of the student's specialization;**

EXAMPLE OF MARKETING DEPARTMENT DOCTORAL STUDENT DISSERTATION COMMITTEE:

Chair and Committee Member: Professor Eric Bradlow, Marketing

Dissertation Advisor and Committee Member: Professor Patti Williams, Marketing

Committee Member: Professor Noah Gans, OPIM

Note:

- ALL committee members are Standing faculty of the University of Pennsylvania
- All committee members are Standing faculty of the Wharton School including chair
- Two members hold primary appointments in the same area (Marketing)
- A member outside the University of Pennsylvania could be a member of this committee but is not a requirement for the composition of a complete committee.

The committee chair is responsible for convening meetings, advising the student on rules, and advising the Vice Dean of the Doctoral Programs that all graduate group requirements have been met. The student's primary advisor

may serve as committee chair provided the primary advisor is a member of the standing faculty of the Wharton School. It is the advisor's responsibility to submit to the Department Coordinator, in writing, the names of the dissertation committee members for approval. The Coordinator will recommend any changes in the committee that he or she deems appropriate. After approval of the committee by the Department Coordinator, the Coordinator will submit the names of the committee members, in writing, to the Vice Dean for approval. * The Vice Dean will normally approve the committee makeup, assuming only that it follows these guidelines concerning its membership. These rules for approval also apply to the replacement of committee members who are unable to continue to serve on the committee.

***Form for Committee Approval may be downloaded from the Wharton Inside PhD Resources site:**

<http://www.wharton.upenn.edu/doctoral-inside/forms.cfm>

When the student has developed a written dissertation proposal that the advisor judges is ready for oral defense, a formal proposal defense before the dissertation committee is held. The defense cannot occur until the student has been admitted to candidacy. All interested faculty and doctoral students are invited and encouraged to attend the proposal defense, but the decision to accept or reject the proposal rests with the dissertation committee, who will communicate their decision in writing to the Vice Dean of the Doctoral Programs. All members of the dissertation committee shall vote to approve or not approve the dissertation proposal. At least three committee members shall be present for the proposal defense. At least three committee members must approve the proposal. Following approval of the proposal, the candidate enters the dissertation phase.

6.2. Dissertation Phase

When the dissertation is judged complete by the candidate's advisor, it must be defended orally in a final dissertation defense before the dissertation committee. Any changes in the composition of the dissertation committee since the approval of the proposal should be submitted to the Vice Dean, in writing, by the dissertation advisor. The same rules for composition of the committee, voting, and committee attendance at the final dissertation defense apply as for the proposal defense. Although other faculty members are encouraged to participate in the defense, the decision to accept or reject the dissertation is made by the dissertation committee only, and is to be communicated in writing to the Vice Dean. A positive vote from at least three members of the dissertation committee is required for the dissertation to be approved.

6.3. Announcement of Defense

In order to encourage maximum participation of interested faculty and students, as well as to encourage scholarly interaction and inquiry, proposal defenses and final dissertation defenses must be publicly announced at least two weeks in advance of their occurrence. Moreover, an electronic copy of the proposal or the dissertation must be available for inspection with the Departmental Coordinator and the Doctoral Programs Office during the two-week period prior to the proposal or dissertation defense.

6.4. Dissertation Defense Timeline/Checklist

See Wharton PhD Programs Degree Information located at:

<http://www.wharton.upenn.edu/doctoral-inside/forms.cfm>

All questions should be directed to the Wharton Doctoral Programs office.

6.5. University Dissertation Manual

University format requirements for the dissertation are documented in the Dissertation Manual

http://www.upenn.edu/provost/dissertation_manual.

IMPLEMENTATION: The new dissertation committee rules shall apply to all students admitted to the doctoral program beginning in the academic year, 2006-2007. Students enrolled as of fall, 2006 and who have not yet defended their dissertation proposal shall have a choice of pursuing their dissertation research under the old or new

rules for the proposal and dissertation defenses. Students currently in the dissertation stage may, with the approval of the dissertation advisor, complete their dissertation under the new rules.

7. Time Limitations (see University Graduate Rules)

http://www.upenn.edu/provost/academic_rules

Students must complete all course work, preliminary examinations, and the dissertation requirement within 16 terms, (excluding summer) eight-year period from the date of their matriculation, excluding leaves of absence. Except in unusual circumstances, students will be expected to gain admission to candidacy status prior to the end of their fourth year in the program (excluding leaves of absence). Requirements for admission to candidacy are filed in section 5 of this manual.

If a student has not completed all requirements for the Ph.D. (including deposit of the dissertation) at the end of the fifth year after beginning dissertation candidacy, he or she must submit to the full dissertation committee, within two months of completing that fifth year, a copy of all written work completed to date on the dissertation. If the student is unable to construct such a committee, he or she will be dropped from the doctoral program. The committee members will evaluate this material, and report to the department Doctoral Coordinator and to the Vice Dean for the Wharton Doctoral Programs, recommending that one of the following actions be taken:

*a/+ The student's research and training are judged to have continued relevancy and currency, and the student is retained in the doctoral program, subject to the other University and Wharton doctoral policies and procedures that may apply (e.g. regarding total time in the program).

[b.] The student is required to modify the dissertation research in order to bring it up to date and to current standards in the discipline, and defend a new dissertation proposal describing the revised research.

[c.] The student is required to fulfill action [b.] and in addition to retake and pass such qualifying or preliminary exams as the committee shall specify. Or

[d.] the student is disqualified from continued doctoral candidacy.

Students who have not completed their dissertation requirement within the eight-year time limit will be dropped from the Wharton Doctoral Programs. Students who are at the dissertation phase and are dropped due to the eight-year time limit may, however, at some later date graduate from Wharton's Doctoral Programs if they meet the following conditions:

- have been admitted previously into candidacy;
- have successfully completed the dissertation proposal phase prior to the expiration of the 16-term limit;
- currency of their research and training has been certified by the dissertation committee, as described in the preceding paragraph;
- dissertation is approved by an appropriately constituted faculty dissertation committee

More detailed information is found at the University of Pennsylvania Provost website under University Academic Rules on Time Limits and Tuition: http://www.upenn.edu/provost/academic_rules

The faculty is under no obligation to provide advice to former students who have not completed their dissertation requirement within the 16-term time limit.

8. Appeals, Academic Responsibility and Grievances

8.1. Appeals

Students or Faculty who wish to appeal a specific decision made under the rules stated in this document should file an appeal in writing with their Departmental Coordinator, with a copy to the Vice Dean of the Wharton Doctoral Programs. Appeals will be handled by the coordinator in consultation with the Vice Dean. The final decision on an appeal rests with the Vice Dean, who may consult the Doctoral Executive Committee on specific matters. Of course, a student also has the right to appeal the Vice Dean's decision to the Dean of the Wharton School and to other University grievance committees appropriate to the particular substantive issues of the student's appeal.

8.2 Academic Responsibility, General Conduct and Disciplinary Procedures

The mission of the Wharton School Doctoral Code of Ethics ("Code") is to promote the growth of ethically responsible scholars through adherence to the highest standards of academic integrity and overall ethical conduct, to develop a sense of individual responsibility on the part of each member of the Wharton doctoral community, to participate actively in maintaining such standards, to foster an environment of honor and trust within the Wharton community, and to engender respect for the ethical standards of the Wharton graduate. Fulfilling this mission is a collective responsibility of the members of the Wharton doctoral community.

The Wharton doctoral student will maintain the highest standards of honesty and integrity. The student will strive for these standards in his or her representations, academic pursuits, and respect for the property and individual rights of others; will uphold the specific principles described in the Code; and will actively support the Code. Standing in the Wharton doctoral community will be subject to adherence to these basic principles of ethics.

The Code will be administered and maintained by a Wharton Doctoral Division, under the direction of the Vice Dean for Doctoral Studies upon recommendations of the Ethics Committee of faculty and student representatives.

8.2.a SPECIFIC STANDARDS

(i) Representations: The Wharton doctoral student is expected to represent himself or herself honestly in all oral or written statements. The student will not misrepresent any material fact to other students, faculty, staff, prospective employer, or anyone else while representing himself or herself as a member of the Wharton community, especially through, but not limited to:

- Lying to prospective employers, either directly through oral or written statements or indirectly through misrepresentation of background in resume;
- Misrepresenting any material fact on a Wharton application, financial aid form, or other official document;
- Lying to a fellow student, a faculty member, or an administrator in order to gain preferential treatment; or
- Misrepresenting the originality of one's work, including failure to cite the contributions of another (plagiarism).
- Giving or receiving any unauthorized aid on an assignment or exam, including working in groups on any assignment that has been designated as individual by the professor;
- Failing to comply with the academic guidelines established by the instructor for assignments;
- Continuing to write after time has been called on an exam; or
- Submitting for credit substantially the same work done for another assignment either academic or professional, except with prior approval of the instructor. In the absence of clear guidelines regarding

an assignment, presentation, examination, or other academic submission, the Wharton doctoral student is expected to seek any and all necessary clarification from the instructor.

(ii) Academic Pursuits: The Wharton doctoral student is expected to represent his or her academic product honestly and fairly. The student will not use any method to gain an unfair advantage over other students in academic pursuits.

(iii) Property: The Wharton doctoral student is expected to respect the materials, data, and property of other members of the Wharton community and visitors to the Wharton School. The student will not misuse or misappropriate the materials, data, or other property of another, especially through, but not limited to:

- Accessing, removing, or destroying any information, materials, or other property from another student's or student organization's premises, locker, computer files or mail folder without prior permission-
- Accessing or removing without prior permission, or hiding or destroying any corporate records, files, job postings, or academic materials from the library, or any other administrative office;
- Divulging or distributing proprietary or confidentially provided information obtained for class assignments; or
- Utilizing for commercial gain any material provided to Wharton specifically and restrictively for educational purpose without prior permission of the provider.

(iv) Individual Rights: The Wharton community is committed to an environment free from discrimination and harassment of any kind. The Wharton doctoral student is expected to respect the individual rights of others. Specifically, Wharton students will observe the University of Pennsylvania policies against physical intimidation, verbal harassment, and discrimination.

Any complaint of a violation of these policies should be brought to the attention of the Vice Dean and Director of the Wharton Doctoral Programs.

8.2.b STANDING IN THE COMMUNITY

A doctoral student who accepts and adheres to the standards discussed above will remain in good ethical standing within the Wharton community. If a student fails to adhere to the Code, the student may be sanctioned. Any sanction will be enacted upon the recommendation of an Ethics Committee at the discretion and action of the Vice Dean of the Wharton Doctoral Division ("Vice Dean")

In deciding what sanctions to recommend, the Committee will consider all relevant circumstances, including the severity of the violation involved. Appropriate sanctions include, but are not limited to the following: Letter of Reprimand, Probation, Suspension, and Expulsion.

All students matriculating in the Doctoral Division must comply with the standards set forth in the Doctoral Code of Ethics and the Policies on Conduct of the University of Pennsylvania.

8.2.c ADMINISTRATION OF THE CODE

(i) Composition of the Ethics Committee:

The Committee will comprise three faculty members and one doctoral student selected by the Vice Dean of the Wharton Doctoral Division from the current membership of the Wharton Doctoral Executive Committee. One member of the Ethics Committee will be the graduate group coordinator from the student's graduate group, unless in the judgment of the Vice Dean that faculty member has a potential conflict of interest with respect to the outcome of the case/ The Committee will be constituted for the duration of the student's case, but will be dissolved upon the completion of the case. The Committee shall select one of the faculty members to serve as Chair of the Committee.

(ii) Responsibilities of the Ethics Committee:

The Committee shall be responsible for hearing and resolving the assigned complaint(s) of misconduct. The Committee will hold a closed hearing to hear the complaint and to allow the student an opportunity to reply to the complaint. Hearings are not intended to be judicial in nature. The complainant(s) is not required to attend this hearing. The student may have an advisor present at the hearing. The advisor is to be a member of the University of Pennsylvania community and may be a student, faculty member, or administrator of the student's choosing. If criminal charges are pending or reasonably in prospect, the student is entitled to be advised by an attorney.

The role of the advisor, including legal counsel when appropriate, is to advise the student. The advisor is not to speak for the respondent nor have an active role in the hearing. Within two weeks of the completion of the hearing, the Ethics Committee will draft a written recommendation for consideration by the Vice Dean of the Doctoral Program/ The recommendation should summarize the complaint, the student's response to the complaint, and the Committee's findings of fact and reasons for the Committee's recommendation/ The recommendation may, or may not, propose a specific sanction. It is understood that any recommended sanction will not be binding on the Vice Dean.

Upon receiving the recommendation from the Ethics Committee, the Vice Dean will render a ruling in the case in a timely fashion, and in the event a violation of the Code of Conduct, impose an appropriate sanction upon the student. The Vice Dean will inform the student of the decision in writing/ The Vice Dean's decision and the recommendation of the Ethics Committee will be forwarded to the Deputy Dean of the Wharton School. In the event of a finding of an Ethics Code violation, the student shall receive a copy of the Ethics Committee's written recommendation and the basis for that recommendation.

(iii) Complaints: Any member of the University community wishing to complain of a breach of Code may submit their complaint in writing to the Office of the Vice Dean of Doctoral Programs. Complainants will be known to the Ethics Committee. All contacts between the complainant(s) and the Ethics Committee will be held in confidence according to the procedures of the Ethics Committee.

(iv) Appeals: Any student sanctioned under the Code by the Vice Dean may appeal the decision and/or the sanction to the full membership of the Wharton Doctoral Executive Committee.

The appeal should be submitted in writing to the Vice Dean within seven days of the receipt of the Vice Dean's letter informing the student of the decision and the sanction. The Vice Dean may meet with the student to clarify the Ethics Committee decision and/or sanctions. If deemed appropriate by the Vice Dean, the Vice Dean may convene the full membership of the Wharton Doctoral Executive Committee, excluding those members who had served on the original Ethics Committee, to hear the student's appeal/ One faculty member of the full Doctoral Executive Committee will be chosen chair by the Committee for the purpose of the appeal. The student will be given the opportunity to present their appeal in person, and an advisor for the student may be present. Upon hearing the appeal, the constituted Doctoral Executive Committee will render a decision as to the violation and the sanction/ The Committee's decision is final/

(v) Jurisdiction: The Ethics Committee or the Wharton Doctoral Executive Committee may refer the matter to the University Office of Student Conduct at any time.

8.2.d DISMISSAL FOR INADEQUATE ACADEMIC PERFORMANCE

It is understood that the procedures outlined here apply only to conduct violations. Dismissal for inadequate academic performance or progress remains the responsibility of each student's graduate group/

8.3. Grievances

A student or faculty member at any time has the prerogative of consulting the Ombudsman of the University to seek advice on grievances or appeals of a general nature. The student may also file a statement of grievance with the Wharton Doctoral Programs, as described below.

Students with grievances not covered by sections 8.1 and 8.2 of this manual can present grievances in writing to the Vice Dean, with copies to the student's Department Chair and Coordinator/ Statements of grievances should indicate the matter under dispute as well as any remedies the student considers appropriate.

Upon receipt of a statement of grievance, the Vice Dean will appoint an ad hoc advisory committee. The committee will consist of two members of the standing faculty that do not have primary or secondary appointments in the student's Department, one member of the standing faculty from the student's Department who is not involved in the dispute, and one doctoral student representative. The function of the committee is to investigate the grievance and make a recommendation to the Vice Dean/ The committee's investigation will include an interview or interviews with the student and any faculty, administrators, or other students involved in the dispute.

Upon receipt of the recommendation of the ad hoc committee, the Vice Dean will render a decision regarding the disposition of the grievance/ The Vice Dean will carefully consider the committee's recommendation, but the final decision on the matter will rest with the Vice Dean.

8.4. Authorship Policy for Doctoral-Student Faculty Collaboration

Doctoral study at the Wharton School requires students to work with faculty on research. Before initiating joint research activities, the faculty member or mentor and the student should have a clear understanding of how authorship credit on any papers that arise from the work will be determined. The disciplinary standards, styles, and procedures for credit, for the order of authors' names, and for acknowledgment footnotes vary importantly across Wharton's doctoral programs, and across the research centers and schools in which its faculty and students participate, so there cannot be a single set of rules or procedures. The key element of the policy is therefore one of statement of expectations by the faculty member or mentor and agreement by the student at the start of the research; the actual expectations and policies must be mutually agreeable and, if they are not, student or faculty should decline collaboration. When roles and expectations change over the course of collaboration, the understanding concerning authorship should be discussed again and changed if necessary. If disputes arise, the process for resolution outlined in the Graduate School rules and procedures should be followed.

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Department PhD Policies and Requirements

Appendix 1.	Accounting
Appendix 2.	Applied Economics
Appendix 3.	Ethics & Legal Studies
Appendix 4.	Finance
Appendix 5.	Health Care Management & Economics
Appendix 6.	Management
Appendix 7.	Marketing
Appendix 8.	Operations & Information Management
Appendix 9.	Statistics

Appendix 1. Accounting Ph.D. Policies and Requirements

Program Overview

Years 1 and 2: Students take doctoral level accounting research seminars and doctoral level courses in economics, finance, statistics, and mathematics. See course information below.

Summer research: Students write research papers in the summers following their first and second years in the program. The first year summer paper provides an opportunity to learn research skills outside of the classroom experience. Students interact with a faculty member in directed research in a field in which the student has an interest. The second year summer paper builds a foundation for the dissertation.

Comprehensive exam: Students take the major field exam in accounting in the summer following the second year of the program. After successful completion of coursework, research papers during the summers following the first and second years, and the comprehensive exam, a student can apply to be admitted to candidacy. Candidates then propose and defend a dissertation.

Course Information

Students are required to complete a minimum of 20 graduate level courses, of which eight at most can be transferred from other programs, schools or universities. Up to four courses per semester may be counted toward the overall requirement of 20 courses. The eight courses taken in the first year usually consist of the four required economics and statistics courses, two accounting core courses, and finance electives.

Accounting doctoral students are required to take the Accounting Research Seminars:

[ACCT 910 - Accounting Theory Research I \(.5 credit\)](#)

[ACCT 911 - Accounting Theory Research II \(.5 credit\)](#)

[ACCT 920 - Empirical Research in Accounting \(1 credit\)](#)

[ACCT 921 - Empirical Research in Accounting \(.5 credit\)](#)

[ACCT 922 - Empirical Research in Accounting \(.5 credit\)](#)

and a two-course sequence in economics:

ECON 681 - Microeconomic Theory

ECON 682 - Game Theory and Applications.

All Wharton doctoral students, including Accounting students, are required to pass preliminary examinations in Econometrics/Statistics. This requirement can be satisfied by taking one of four two course sequences: STAT 510 and 511 or STAT 540 and 541 or STAT 550 and 551 or ECON 705 and 706.

STAT 510 - Linear Algebra and Probability

STAT 511 - Statistics for Business and Economics

STAT 540 - Statistical Methods and Computation

STAT 541 - Statistical Methods

STAT 550 - Mathematical Statistics

STAT 551 - Introduction to Linear Statistical Models

ECON 705 - Econometrics I: Fundamentals

ECON 706 - Econometrics II: Methods and Models

Students must pass all required courses with a grade of B or better. Except for the accounting seminars, students with superior training may substitute higher level courses.

Additional graduate level courses commonly taken by Accounting students include:

Finance:

FNCE 911 - Proseminar in Finance (individual and corporate)

FNCE 912 - Financial Institutions

FNCE 921 - Introduction to Empirical Methods

FNCE 922 - Continuous Time Financial Economics

FNCE 924 - Intertemporal Macroeconomics and Finance

FNCE 934 - Empirical Research in Finance

Economics:

ECON 897 - Basic Mathematics for Economists

ECON 898 - Elementary Mathematics for Economists

ECON 708 - Economics of Agency, Information, and Incentives

ECON 713 - Game Theory

Student Involvement in the Department

Two required elements of the program are the workshop colloquium and the first year research assistantship.

Workshop colloquium: The workshop colloquium is a weekly one-hour faculty led discussion for all Accounting doctoral students. First and second year students are required to attend. In most weeks, the discussion is centered on the research paper that an outside speaker is presenting to the department. In weeks that we do not have an outside speaker, the discussion will be on the research of the faculty discussion leader or one of the PhD students.

First year research assistantship: First-year doctoral students are research assistants in the spring semester of the first year. Faculty members propose possible projects to the Ph.D. coordinator, and students are matched to those projects with the student's interests and skill development needs in mind/ The R!-ship encourages working relationships between faculty and students and provides personal training in research skills outside of the classroom setting.

Appendix 2. Applied Economics PhD Policies and Requirements

The course of study for the PhD in Applied Economics requires the completion of 20 graduate course units. The common core consists of three theory courses, three statistics/econometrics courses, and a requirement to participate in both a graduate student research seminar (two .5 course units) and a field seminar (typically two .5 course units in the Applied Economics seminar). The remaining 10 course units consist of four units in required field courses, four units in electives (which may also be in the fields of concentrations), and two units in independent studies while working on the thesis.

Student Involvement

During the first year, students are expected to spend full-time on their coursework and research. In subsequent years during which they are supported, students are expected to work with faculty, either as teaching assistants or research assistants, thereby gaining the experience required to be successful researchers and teachers in their future careers. Other activities that further the student's research careers are encouraged, subject to faculty approval.

Core Courses

Students will be required to master core materials in economic theory covering the topics of household decision-making, production theory, theory of markets and market failure, game theory, decision-making under uncertainty, and resource allocation in dynamic economies. Some substitution may be permitted with the consent of the student's advisor and approval of the doctoral coordinator.

Applied Economics Students will also be required to master core materials in applied econometrics covering the topics of statistical inference, regression analysis, panel regression analysis, estimation of models using discrete dependent variables, and more advanced techniques.

The following courses will satisfy the six core course requirements:

Microeconomics

ECON 681 or 701
ECON 682 or 703

Macroeconomics

ECON 702 or 704 or 714 or FIN 924

Econometrics/Statistics

ECON 705 or STAT 520
ECON 706 or STAT 521
BPUB 911 or ECON 721 or FIN 921 or STAT 921

Other Program Course Requirements

Admitted students will be required to successfully complete a Summer Math Camp prior to matriculation. In some rare cases, a waiver exam might be granted to students with an exceptionally strong background in mathematics.

The Wharton School also requires all doctoral students to complete the Teacher Development Program (TDP). Waivers of the TDP are granted under the following conditions: prior teaching experience, recognized teaching awards, or college-level education courses.

Workshops

Beginning in the second year of the program students will be required to attend the student research seminar (Currently BPUB 900). Students will also be responsible for presenting a paper of original research to the seminar before entering dissertation status. In addition, the paper must be approved by a member of the graduate group as an acceptable demonstration of the student's ability to do quality independent research. All students will be required to attend the faculty Applied Economics Workshop or a faculty "Field" seminar for all years of their program as recommended by their graduate group advisor.

Suggested Course of Study for Year 1-2

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6
Micro Theory I*	Micro Theory II*	Elective/Field Course	Elective/Field Course	IS/THESIS	IS/THESIS
Econometrics I	Econometrics II	Econometrics III	Elective/Field Course	IS/THESIS	IS/THESIS
Elective/ Math Tools or Micro Theory II*	Macro Theory*	Elective/Field Course	Elective/Field Course	IS/THESIS	IS/THESIS
Elective/Field Course	Elective/Field Course	Graduate Student Research Seminar (.5 Credits)			
AEW/Group Seminar (Audit: 0 Credits)	AEW/Group Seminar (Audit: 0 Credits)	AEW/Field Seminar (.5 Credits)	AEW/Field Seminar (.5 Credits)	AEW/Field Seminar (.5 Credits)	AEW/Field Seminar (.5 Credits)

As now constructed, the suggested course of study satisfies the student's requirement for 20 courses. 3 Theory- 3 Econometrics; 4 required Field courses; 4 Electives (out of, or in Fields); 2 Graduate Student Seminar credits; 2 AEW/Group Seminar credits; 2 Independent Study/Thesis credits. Unless noted otherwise, all courses give 1 full credit.

* *Micro-Economic Theory I and II may be taken in Term 1 if the sequence Economics 701, 703 is chosen. The student who selects Economics 681, 682 as their micro-economics sequence will take these two course in the fall and spring semesters of the first years; Macro Theory may be taken in Term 4.*

***Student should consult their advisor for any prerequisites required in their desired fields when selecting electives — for example, Finance 911 is required of all students wishing to present Economics of Risk Management as a field.*

Students usually work with one or two faculty members on a research project each summer. The third and fourth years are generally devoted to dissertation research. In addition to job market paper and dissertation, students are expected to submit candidacy paper at the beginning of the third year.

Fields

In addition to the core theory and econometrics materials, students will be required to master two field areas from among a set of five candidate fields. Mastery of materials will be demonstrated by passing two courses in each field. Students will be free to offer their own field as a substitute with approval of the graduate group chair and (when relevant) an appropriate advisor from another Wharton graduate group.

The five candidate fields include:

- **Behavioral Economics:**
OPIM 900: Foundation of Decision Processes
OPIM 904: Experimental Economics

- **Economics of Risk Management:**
(FNCE 911 is a pre-requisite for students pursuing this field.)
INSR 934: Economics of Risk and Information
INSR 932: Empirical Modeling for Risk and Insurance
- **Industrial Economics and Business Regulation:**
BPUB 987: Industrial Economics and Business Regulation
ECON 780: Theoretical Industrial Organization
ECON 781: Empirical Industrial Organization
- **Public Economics and Political Economy:**
BPUB 951: Political Economy
ECON 750: Public Economics (Theory)
ECON 751: Public Economics (Empirical)
HCMG 903: Health Care Policy
- **Urban Economics and Real Estate:**
REAL 945: Urban and Real Estate Economics
REAL 900: Advanced Topics

Qualifying Exam

At the end of first year, students are expected to take and pass qualifying exam covering microeconomics and econometrics.

Faculty Advisors

Students are required to select or be given a faculty advisor by June 30 following their first year in the program. Because the student will not have had all of the major field courses at that time, it is possible that a student will later decide to change advisors; such an eventuality will be considered a normal outcome. In addition, since students will not have had all of the major field course work by June of their first year, they should “read ahead” in their chosen fields to begin identifying a research topic for the Second Year Paper. Students are expected to initiate meetings with faculty members to discuss possible research topics, and these meetings should begin as early as possible after the student enters the program and are part of the process of getting to know the faculty and learning about the field.

Candidacy Paper

The Program in Applied Economics provides students with several opportunities to conduct research. All students are required to write a candidacy paper in their second year to be submitted in the fall of the third year in the program/ This paper should demonstrate the student’s ability to conduct PhD quality research/ This is often used as the Master’s Thesis submission- and, as the title implies, it is one of the requirements for admission to Doctoral candidacy.

The deadline for submission of the Candidacy Paper is strictly enforced, and failure to complete and submit the paper by the deadline (October 1 of the student’s third year in the program) is grounds for dismissal from the program. The paper must be submitted to the faculty member who is the student’s principal advisor for the project, as well as to the Doctoral Coordinator. A copy of the candidacy paper, together with letters from two faculty members noting approval of it, must be in each student’s file in the Program office prior to the start of the student’s fifth term (typically the start of the third year)/ Failure to fulfill this requirement may result in the student being dropped from the program.

The main objective of the candidacy paper is to demonstrate the student’s ability to do original research. The paper requirement is designed to help the student make the transition between the first two years of the program, which are primarily devoted to course work and prelims, and the third and fourth years of the program, which are primarily devoted to research. Often the Candidacy Paper is submitted for publication, and it can also serve as the foundation for PhD research, possibly as a dissertation essay. The Candidacy Paper must be solely authored

by the student, not co-authored with the faculty advisor.

Milestones on the road to the candidacy paper are as follows:

June 30 of the 1st year in the program	Faculty advisor selected
First day of classes, fall semester, 2nd year	Draft of Candidacy Paper proposal
First day of classes, spring semester, 2nd year	Final draft of Candidacy Paper proposal
Last day of classes, spring semester, 2nd year	Approval of topic by advisor
October 1, fall semester, 3rd year	Final version of Candidacy Paper
Last day of classes, fall semester, 3rd year	Deadline for Candidacy Paper seminar

Admission to Candidacy

Before admission to candidacy, the student is required to:

- Complete all required coursework, including all core courses, with at least a B- or better in each course and with an average GPA of B or better.
- Submit a satisfactory candidacy paper.
- Present a satisfactory dissertation proposal (written and oral).

The PhD Dissertation

The best ways to find a dissertation topic is to talk to the program faculty and read the literature. Discussions with faculty can range from “cold calls,” where the student asks the faculty member for topic suggestions, to more proactive visits where the student discusses potential topic ideas that have come up in course work or research seminars. Students should also take a close look at recent dissertations written by students in their major field as well as dissertations written by students from other Wharton departments.

There are two primary models for the organization of dissertations. the “single study” traditional dissertation, and the essay approach/ In the latter approach, two or three essays are generally found acceptable by the student’s dissertation committee, depending on length and quality. Dissertation essays are becoming more prevalent for a number of reasons, including most importantly, (a) the Candidacy Paper may be permitted to constitute a substantial part of one essay, (b) an essay can be used as an interview paper (see discussion below), and (c) if properly structured, an essay can often be converted into a paper to be submitted to a journal. Whether two or three essays are appropriate depends on the length and complexity of the research undertaken and is determined by the student’s dissertation committee.

Dissertation essays may be co-authored, although the extent to which this is appropriate will depend on each student's topic, doctoral committee, and faculty advisor. A circumstance where a co-authored essay might be appropriate could arise from a joint research project with a faculty member/ However, the student’s dissertation must include at least one essay that is solely authored by the student.

The dissertation process must begin with the selection of a principal advisor or co-advisors. Each student is responsible for this selection, and then the student works with the advisor(s) to select the dissertation topic and begin exploratory research. The student and advisor then work together to select committee members. Committee members can be approached to join the committee by either the student or the principal advisor(s). The student should work with the advisor(s) to arrange a mutually agreeable procedure. The student should review the Wharton Doctoral Programs Policies and Procedures, to be sure that the committee structure satisfies the overall requirements of the Wharton Doctoral Program.

Going on the Job Market

The ultimate objective of the Wharton Doctoral Program is to prepare our students for a teaching and research career, ideally at a college or university. Because the placement process for academic jobs is lengthy, students should become familiar with it well in advance of the “job market year/” The important events and deadlines for an academic job beginning in September of year T are as follows:

- May T-1: Meet with advisor and committee to discuss job options, prepare resume. Submit resume for job listings.
- * June or July T-1: Submit resume for Financial Management Association (FMA) Job Book.
- * August T-1: Attend association meetings (e.g., ARIA). Students are strongly encouraged to submit a paper for presentation meetings. The deadline for submission of a proposal for the meeting can be as early as December of year T-2. The call for papers, including deadlines, is usually published in 12-18 months in advance of the meeting.
- September T-1: Complete final version of interview paper. The interview paper is generally equivalent to one dissertation essay.
- September-December T-1: Present job market paper to the Program Faculty for polishing and practice. Review FEN, ERN, and JOE for job postings, submit letters of application for jobs of interest. Work with advisor and committee to generate interviews at the American Social Science Association (ASSA) meetings.
- * October T-1: Attend FMA annual meeting. Students are strongly encouraged to submit a paper for presentation at this meeting. The deadline for submission of a proposal for the meeting can be as early as Fall of year T-2. The call for papers, including the deadline, is published in Financial Management.
- January T: Have interviews at Allied Social Sciences Association meeting, as appropriate.
- January-March T: Give job market presentations, conclude job search.
- March- June T: Finish dissertation, defend.

*: *Optional*

Appendix 3. Ethics & Legal Studies Ph.D. Policies and Requirements

CURRICULUM

The course of study for the PhD requires completing sixteen graduate course units, comprising a four-course unit core in the Legal Studies and Business Ethics Department, two courses in statistics, a course in economics, a five-course major disciplinary cluster, two courses in ethical theory, and two electives. Students may enroll in courses beyond these sixteen graduate courses.

In addition, PhD students must take preliminary exams in ethics and in legal studies, write and defend a dissertation proposal, and write and defend a dissertation.

The course requirements are as follows:

Area	Course Units
Ethics and Law in Business Courses	4
Statistics	2
Economics	1
Major Disciplinary Cluster	5
Ethical Theory (taught by Philosophy Dept)	2
Elective	2
Dissertation	-
Total	16

Students may apply for credit for graduate-level work done at other institutions.

Ethics and Law in Business Courses

Students must take four LGST courses, including these two core course seminars:

- 1) Ethics in Business and Economics (LGST 920)
- 2) Foundations of Business Law (LGST 921)

Students must take two additional LGST courses from a list of approved courses held by the Doctoral Coordinator. Students without basic law work will be required to take LGST 101 in their first semester. Students will take LGST courses, other than Ph.D. seminars, under an independent study number, meet with the instructor periodically outside class, and write a paper. These requirements should be satisfied through courses taught by members of the LGST standing faculty, though exceptions will be made in special circumstances. The requirements may be adjusted for students with law degrees.

Major Disciplinary Cluster

The purpose of the cluster is to ground students in a single academic specialty other than Business Ethics. Clusters include the following:

- Management
- Law
- Philosophy

Students must choose a disciplinary cluster during the first year, in consultation with a faculty advisor. Required courses may not be double-counted. For example, a student choosing Philosophy as the cluster may not use the two required courses in ethical theory as part of the five course cluster requirement.

Statistics and Economics

Students must satisfy the Wharton requirement of two courses in statistics. The economics requirements can be met with Economic Foundations of Research in Management, Managerial Economics and other courses approved by Doctoral Coordinator.

Student Involvement in the Department

- 1) Assistantship

During the first year, students are expected to spend full-time on course work and research. In subsequent years during which they are supported, students are expected to work with faculty either as teaching assistants or research assistants.

2) Requesting Assistantship

No later than two weeks before the beginning of the semester, each eligible student will submit a request to serve as a teaching or research assistant for a particular faculty member. The Doctoral Coordinator, acting in consultation with the Chair, will make assistantship assignments. There is a presumption of rotating assignments. Unless there is a substantial likelihood that a research assistantship will result in a faculty-student co-authored article, there is a presumption in favor of teaching assistantships rather than research assistantships.

3) Research Paper

Each student will present a research paper to the Department no later than the end of the Fall semester of his or her second year of studies. In addition, near the end of each academic year, we will have a meeting of all students in residence. Faculty will be encouraged to attend this meeting, at which students will describe their evolving research interests.

4) Choosing Courses

Each student must have his or her choice of courses approved in writing by both Advisor and Doctoral Coordinator two weeks before the start of each semester. Any subsequent changes to a course schedule must also be approved in writing by both Advisor and Coordinator.

5) Selecting a Dissertation Committees

By the end of his or her third year, each student will form a dissertation committee. Membership on the committee must be approved by the Ph.D. Coordinator. Also, by the end of the third year, students will submit a preliminary draft of a dissertation proposal to the committee.

6) Timing of Dissertation Proposal

By the beginning of his or her fourth year, each student will submit the final draft of a dissertation proposal, and defend it.

7) Dissertation

Each student is expected to complete and defend a dissertation no later than the end of the fourth or fifth year in the program.

Appendix 4. Finance Ph.D. Policies and Requirements

General

The primary mission of the PhD program in finance is to prepare students of exceptional talent for careers in research and teaching at the world's leading academic institutions. The faculty are renowned for their research, both empirical and theoretical, in areas such as the structure of financial markets, the formation and behavior of financial asset prices, banking and monetary systems, corporate control and capital structure, saving and capital formation, and international financial markets.

During the first two years of the program, students take courses in finance and in related disciplines such as economics and statistics, and a comprehensive examination is administered to confirm a mastery of the topics in finance. In addition, students are required during their second year to write a paper containing original research in an area of interest to the student. This paper, written under the guidance of two faculty advisers, is presented at a workshop. During the third year, students make the transition from course work to full-time dissertation research. A dissertation proposal is held late in the third year or early in the fourth year, and the dissertation is completed during the fourth year.

The Finance Department sponsors a variety of weekly seminars for the presentation and discussion of current research in finance. Speakers include faculty and doctoral students from Wharton, the Department of Economics, and many other universities. These seminars provide an essential element of the PhD program in finance, and students at all stages of the program are encouraged to attend and to participate.

Admission and Basic Requirements

Undergraduate training in economics, mathematics, engineering, or other quantitative disciplines is an excellent background to undertake doctoral studies in the field of finance. The GMAT or the GRE General Test is required of all applicants. Applicants are expected to have completed introductory courses in economic theory, mathematics (including calculus) and basic accounting principles. Students who do not meet these course requirements but otherwise show promise may be admitted on the condition that they remove any deficiencies during the summer that precedes enrollment or soon thereafter.

Students must take ECON 700 which is offered in the fall term. To help students prepare for ECON 700, the Economics Department offers ECON 897, a non-credit course in mathematical analysis for economists held for seven weeks at the end of the summer prior to the beginning of the program. Students are not required to take ECON 897, but they are required to successfully complete ECON 700. The Wharton School offers an alternative "math camp" course during the summer. Econ 897 is designed for students with stronger backgrounds in mathematics than is the Wharton math camp. Students are advised to take Econ 897 if they have sufficient background so that they will be better prepared for the required Econ 700.

International students who are accepted into the program and whose first language is not English may be required to take the SPEAK test offered through the English Language Programs office. This test is used to determine/confirm a student's fluency in English. If test results indicate a student would benefit from additional language instruction,

arrangements will be made for summer class work and tutoring. Students will be expected to complete this additional work to ensure their proficiency in written and spoken English in professional settings.

Program of Study

The PhD in finance requires a minimum of twenty graduate level courses, of which eight at most can be transferred from relevant graduate courses at other schools or universities. Of the twenty courses, eleven are required as follows:

Economics (2 courses)

ECON 701 Microeconomic Theory I

ECON 700 Elementary Mathematics for Economists

Students must pass both courses with a grade of B- or better.

Econometrics or Statistics (2 courses)

A one-year graduate level sequence in statistics or in probability and statistics is required. Finance PhD students are encouraged to take either STAT 520/521 or ECON 705/706. Students may, with the prior approval of the PhD coordinator in Finance, satisfy the statistics requirement with STAT 520/512, STAT 510/520, or STAT 550/551. In extraordinary cases, and with prior approval of the PhD coordinator in Finance, a student may satisfy the statistics requirement with other course sequences.

STAT 520: Applied Econometrics I

STAT 521: Applied Econometrics II

ECON 705: Econometrics I

ECON 706: Econometrics II

STAT 520: Applied Econometrics I

STAT 521: Mathematical Statistics

STAT 510: Probability

STAT 520: Applied Econometrics I

STAT 550: Mathematical Statistics

STAT 551: Introduction to Linear Statistical Models

Students must pass both courses in the sequence chosen with a grade of B- or better. Alternatively, for any of these courses the student may pass a waiver or preliminary examination administered by the department in which the course is taught and then substitute higher-level courses in the same area.

Finance Core (6 courses)

FNCE 911 Financial Economics

FNCE 912 Financial Institutions

FNCE 921 Introduction to Empirical Methods

FNCE 922 Continuous-Time Financial Economics

FNCE 924 Intertemporal Macroeconomics and Finance

FNCE 934 Empirical Research in Finance

Finance Electives (1 course)

Each student is expected to develop proficiency in specialized areas in preparation for dissertation and research work. To this end, one or more finance electives are required from among the following courses:

FNCE 923 Financial Economics under Imperfect Information

FNCE 925 Topics in Asset Pricing

FNCE 926 Empirical Methods in Corporate Finance

FNCE 932 Corporate Finance

FNCE 933 International Finance

FNCE 937 Applied Quantitative Methods in Finance

FNCE 939 Behavioral Finance

Up to four courses per semester may be counted toward the overall requirement of twenty courses. The eight courses taken in the first year usually consist of the four required economics and statistics courses as well as the first four finance core courses. The remaining two finance core courses are usually taken in the second year. In general, students complete all courses by the end of the third year.

Candidacy

Students are admitted to candidacy after satisfactorily completing the following:

- Course requirements as described above.
- A preliminary written examination in finance, administered by the Finance Department. In general, students are allowed no more than one unsuccessful attempt to pass a preliminary examination.
- A second-year research paper, approved by a committee appointed by the PhD Program Coordinator and presented in a workshop. (A proposal for the contents of this paper and the names of the two faculty advisers must be submitted to the PhD Program Coordinator by May 1st of the second year.)

Unsatisfactory performance in courses, preliminary examinations, or the second-year paper can necessitate a student's withdrawal from the program.

Dissertation

During the third and fourth years, after admission to candidacy, the student conducts dissertation research under the guidance of a dissertation adviser and other interested faculty. It is expected that the dissertation will contain original research meeting standards of quality roughly equivalent to those of the major academic journals in finance and economics. The student is required

- to write and defend a proposal for a PhD dissertation and
- to write and defend a PhD dissertation.

The approval of both requirements rests with the student's dissertation committee, which consists of at least three

faculty members (including the dissertation advisor), not more than five faculty members, and is formed in accordance with the rules of the University of Pennsylvania and those of the Wharton School PhD program. In addition, final approval of the dissertation requires the approval of an additional reader from the finance department who will be appointed by the PhD Program Coordinator.

Appendix 5. Health Care Management & Economics Ph.D. Policies and Requirements

Program Design and Core Competencies

Training in health services research at Penn is designed to impart core competencies required to produce important, relevant, and usable new knowledge. The curriculum balances theoretical and factual content with skill-based methodologic experience. At the program's foundation is a commitment to rigor, excellence, and high professional standards. These core competencies include:

- (1) identifying researchable and policy-relevant topics;
- (2) specifying a precise research question;
- (3) evaluating existing research literature in the area;
- (4) specifying a rigorous yet tractable conceptual model with hypotheses whose testing will shed light on the policy relevant questions;
- (5) developing a wide range of empirical skills in the collection, analysis, and interpretation of data;
- (6) discussing results in clear language that can command both understanding and respect by technical and policy analysis;
- (7) understanding how to best identify stakeholders in the results of the research in question, how to motivate them to attend to the results of research and appreciate its new contributions in methods, rigor, and relevance, and how to communicate those results in settings, formats and language that are understandable, compelling, and persuasive.

Admissions Criteria

- Congruence between an applicant's career goals and our program goals
- Strong academic record
- Strong references that address an applicant's analytical and research aptitude
- Strong GRE or GMAT scores. Test scores are required for all applicants; including MD-PhD applicants, there are no exceptions.

Disciplinary Clusters

The purpose of the disciplinary cluster is to equip candidates to conduct research in their areas of choice and to teach in fields in addition to Health Care Management and Economics. The courses may be drawn from the following clusters:

- Economics/Public Management
- Operations and Information Management
- Statistics/Epidemiology
- Finance/Accounting
- Management
- Marketing
- Public Policy and Management

PhD Requirements

The Wharton Doctoral Degree requires credit for 20 semester course units plus a dissertation. The requirements for candidates in the Health Care Systems program are as follows:

Discipline	Course Units
Health Care	6
Statistics	2
Microeconomics	2
Major Disciplinary Cluster	6
Minor Cluster/Electives	4
Dissertation	-
<i>Total</i>	<i>20</i>

In practice, students have considerable flexibility in selecting courses outside their major or minor clusters, including Independent study, because some courses satisfy more than one requirement. Students who enter with Masters level training may use up to two courses taken prior to admission to meet requirements.

Statistics and Microeconomics

A one-year graduate level sequence in statistics or in probability and statistics is required. Any of the following sample sequences can be used. Students may substitute other graduate level courses upon approval of the graduate director of the Statistics department.

- STAT 520 and 521- This is an applied and computational statistics and econometrics sequence. It has been specifically designed for students with interests in applied economics, operations management or other quantitative specialties. This should be appropriate for a majority of doctoral students at Wharton.
- STAT 520 and 512- This consists of a course in applied statistics and an introductory course in statistical theory.
- STAT 510 and 520- This consists of a course in probability theory and an introductory course in applied statistics.
- STAT 550 and 551- The sequence covers mathematical statistics and theory and applications of linear models. This sequence is primarily designed as an introduction for doctoral students in statistics.
- ECON 705 and 706- Theoretical foundations of econometrics, and time series theory and methodology.
- STAT 500 and 501- This may be a better choice for students with backgrounds and research interests in the social and behavioral sciences since it concentrates more on methods frequently applied in those areas.

The microeconomics requirements can be met with ECON 681 and 682 (or ECON 701 and 703).

Health Care Courses

The major field course requirements are selected from the following list. Normally, all PhD students are expected to take HCMG 900, 901, and 903.

- HCMG 845 Managed Care and the Industrial Organization of Health Care
- HCMG 849 Financial Management of Health Institutions
- HCMG 852 Health Services Delivery: A Managerial Economic Approach
- HCMG 854 Legal Aspects of Health Care
- HCMG 859 Comparative Health Care Systems
- HCMG 863 Management and Economics of the Pharmaceutical, Biotech & Medical Device Industries
- HCMG 900 Proseminar in Health Services Research
- HCMG 901 Seminar in Health Care Cost Benefit and Cost-Effectiveness Analysis
- HCMG 902 Implementing and Sustaining Innovation
- HCMG 903 The Economics of Health Care and Policy HCMG 999 Independent Study

Curriculum

Students ordinarily complete all degree requirements in four to five years — about two and one-half years of formal coursework, including directed research, followed by a thesis, which generally takes one to one and a half years to complete. Before starting at Penn, trainees who plan to major in economics or related disciplines are strongly encouraged to take two semesters of calculus and statistics; they are also required to take the Economic Department's summer math course, which is a prerequisite for PhD level economics courses. The first year of coursework is normally spent on quantitative methods, economics, and courses in the disciplinary cluster. Students must complete a first year paper during the summer of their first year. Typically, the student completes two Health Care Management and Economics courses during the first year. The second year, and the first half of the third year, are devoted to the remaining Health Care Management and Economics courses and the disciplinary cluster courses. In the second and third years, students are required to participate in faculty-directed research projects for 10 hours a week. In addition, most students also participate in research during the summers, starting with their first summer. The final year-and-a-half typically is devoted to full time work on dissertation research. The dissertation proposal defense, based on the proposed theoretical model and data analysis, and the final defense, are both open to the public.

Sample Course Sequence

Year	Fall	Spring
Year 1	<ul style="list-style-type: none"> • Proseminar in Health Services Research • Economic Foundations of Research in Management • Microeconomic Theory • Applied Regression and Analysis of Variance 	<ul style="list-style-type: none"> • The Economics of Health Care and Policy • Seminar in Health Care Cost Benefit and Cost Effectiveness Analysis • Game Theory and Applications • Introduction to Nonparametric Methods and Log-linear Models
Year 2	<ul style="list-style-type: none"> • Proseminar in Health Services Research • Empirical Research in Accounting • Econometrics I: Fundamentals • Industrial Organization 	<ul style="list-style-type: none"> • Empirical Public Policy • Topics in Macroeconomics • Event History • Empirical IO
Year 3	<ul style="list-style-type: none"> • Categorical Data Analysis • Research Seminar • Applied Economics Seminar 	<ul style="list-style-type: none"> • Seminar • Research Seminar • Applied Economics Seminar

Student Involvement in the Department

Students participate in faculty-supervised projects as research fellows, starting in the second year of the program. This work provides first-hand knowledge of research methods and design and often furnishes the basis for a dissertation topic. It also teaches students the art of securing funding for research, which is important for any aspiring health services researcher. Students are also expected to participate in the Leonard Davis Institute's Research and Policy Seminar Series, which feature external speakers working on cutting-edge health services research projects and policy issues. In addition to regular seminars, all PhD students are expected to participate in the department colloquium, which features discussion of research in progress by faculty members, students, and guests.

Admission to Candidacy

Before admission to candidacy, the student is required to complete the course requirements as described. Health services research prelims are given at the end of the second year. The student's major disciplinary cluster prelim is usually given at the end of the first year.

For additional information on the MD-PhD program please see the University of Pennsylvania's MD-PhD Program website.

Appendix 6. Management Ph.D. Policies and Requirements

Management Department Doctoral Student Evaluation Guidelines

Originally issued: February 28, 2007

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1. All doctoral students in the management department will be evaluated by the doctoral coordinator and the doctoral advisory group (the “evaluation committee”) for good standing at a meeting in June of each academic year. The evaluation process should serve as an opportunity to offer constructive advice. However, students found to not be in good standing are at risk of loss of funding and dismissal from the program.

2. For first-year students, the following rules shall apply:

a. Grades. To remain in good standing, students must maintain a grade average of at least B.

b. The first-year exam is given to allow students to demonstrate their competency in the Economic, Sociological and Psychological Foundations of Management Research as well as Management Research Methods after completing the first year of classes. The exam is scheduled in the first-half of May. The exam is designed and graded jointly by the instructors of MGMT 900, 933 and 953. The reading list for the exam is the joint syllabi for the three classes. All required readings from the syllabi are included even if they were not discussed in detail during class. Some instructors may choose to include optional readings as well. The written component of the exam contains multiple questions. Students are typically required to answer certain questions and may be provided optional elections among other questions. Students are given two 6-8 hour periods over a 2-3 day window to complete their written responses. The exam is open book / open notes and is delivered and returned via email to the doctoral administrative coordinator. Students should not disclose their identities on the exams; they will be provided with a unique identification number from the doctoral administrative coordinator to facilitate blind-grading. Throughout the duration of each exam period, students are not permitted to discuss exam content with anyone except to clarify questions with the instructor (provided s/he is available). In assessing answers, instructors will look first for clear evidence that the student has seriously engaged each question answered, without neglecting any part. Beyond that, instructors will look for evidence that the student has absorbed and internalized the intellectual substance of the course material, and has actively used that understanding in addressing the question. Various questions on the exam will be designed to test ability to

(i) show knowledge in each of the subdomains;

(ii) integrate, compare, contrast and discuss theoretical arguments within the economic, sociological and psychological foundations of management; and

(iii) demonstrate an understanding of the philosophy and design of different methodological approaches to test these theoretical arguments.

The instructors grant either a pass, a conditional pass, or a fail on the exam. “Pass” means that the student has demonstrated his/her competency on the entire exam. “Conditional pass” means that the student needs a limited amount of remedial work; in this case, the instructors will require some additional writing on one or more components of the exam due within a maximum of two weeks. “Fail” means that the student has demonstrated serious deficiencies on one or more components of the exam; in this case, the instructors will indicate that either the entire exam or some components must be retaken and passed before July 31 in order for the student to retain good standing.

c. Overall evaluation. Any student who clearly passes each of the exams and has maintained the required grade standard will be deemed to have met the academic standard for continuation in the program. Should grade or exam performance be marginal or unacceptable, the evaluation committee and examination committee will jointly decide, following a simple majority voting rule, whether to dismiss the student from the program or to establish additional remedial work/ This vote will also take into consideration feedback from the student’s first –year research assistantship supervisor as well as written feedback from any other faculty members who have significant information concerning the student’s progress/ In the event of a tied vote, the doctoral coordinator will cast the deciding vote.

d. Any student dismissed from the program has the right to appeal to the Vice-Dean for Doctoral Education at Wharton.

3. For second-year students, the following rules shall apply:

a. Grades. To remain in good standing, students need to maintain a grade average of at least B with no “permanent incompletes” (terminology used by the university to indicate an incomplete more than a year old, denoted by I* on

the transcript).

b. Second-year qualifying examination. The second-year qualifying exam is given to allow students to demonstrate their competency in a particular (pair of) management specialization(s) prior to proceeding to dissertation stage. It is scheduled during the month of May. By the end of February, students choose a core specialization and may choose a related specialization from the following set of six specializations: Entrepreneurship, Human Resources, Multinational Management, Organization Behavior, Organization Theory and Strategic Management. An examination committee is formed by 2-4 faculty members, where the head of the committee is a subgroup member in the core specialization area. The committee membership is chosen by the core subgroup area coordinator in consultation with the doctoral coordinator; at least half the members of the committee are subgroup members in the core specialization area. A reading list is generated by the committee in conjunction with the student. Typically, the reading list contains required and optional materials from class syllabi as well as other related articles, and is supplemented with additional articles that relate to the student's interests. The written component of the exam contains multiple questions. Students are typically required to answer certain questions and are provided optional elections among other questions. Students are given between 8-10 hours to complete their written responses. The exam is open book / open notes and is delivered and returned via email. The oral component of the exam is held 2-3 days after the written component. In a session lasting between 30 minutes and 1 hour, the student answers questions intended to clarify their written responses. Throughout the duration of the exam period, students may ask clarifying questions of faculty members of their committee, but are not permitted to discuss exam answers with faculty or fellow students. After the oral exam, the committee grants a pass, a conditional pass, or a fail. "Pass" means that the student is qualified to move to dissertation stage. "Conditional pass" means that the student needs a limited amount of remedial work; in this case, the committee will require some additional writing due within one week and may request a follow-up oral exam. "Fail" means that the student has demonstrated serious deficiencies; in this case, the exam must be retaken and passed before August 15 in order for the student to remain in the program.

c. Overall evaluation. Any student who clearly passes the exam and has maintained the required grade standard will be deemed to have met the academic standard for continuation in the program. Should grade or exam performance be marginal, the evaluation committee and examination committee will jointly decide, following a simple majority voting rule, whether to dismiss the student from the program or to establish additional remedial work/ This vote will also take into consideration feedback from the student's first- and second-year research assistantship supervisor(s), the grade on the first-year examination, as well as written feedback from any other faculty members who have significant information concerning the student's progress/ In the event of a tied vote, the doctoral coordinator will cast the deciding vote.

d. Any student dismissed from the program has the right to appeal to the Vice-Dean for Doctoral Education at Wharton.

4. For third-year students, the following rules shall apply:

a. Second year paper. The second-year paper requirement is designed to develop and demonstrate a student's ability to identify a research question, develop related theory and hypotheses, and test these hypotheses empirically. In addition, it provides an opportunity for the student to practice presenting a paper in a full-session (80-minute) format. The caliber of written work required is at the level of a submission to a high quality and individually appropriate conference venue that is likely to be accepted. Indeed, we strongly encourage students to submit their second year papers for presentation at a major conference and our hope is that students will ultimately submit revised versions of these papers to equally prestigious journals for publication. A second-year paper committee includes an "advisor" and two "readers". The advisor is the person who has had the most previous exposure to the paper. Then, for the requirement, you must have two readers (not including your advisor) approve the written paper. You may have coauthors on this paper, but you must be the primary or coequal author, and coauthors cannot serve as readers (but can serve as advisor). When you submit the paper to your readers, they will have two weeks to respond to the paper. They may approve the paper as is, or ask for revisions before they approve. They also determine whether you are ready to present the work in an open session. When they provide a go-ahead for presentation, you are responsible for securing a presentation date and time that works for your readers, your advisor, and a member of the doctoral committee (typically the doctoral coordinator). Approval of the written paper and presentation in the open session fulfill the requirement. It is worth noting that the likelihood of your readers approving your paper is strongly correlated with the extent to which they and your advisor have provided previous informal feedback.

Several deadlines apply:

- i) The second-year paper committee must be formed by May 15th of the second year.
- ii) The paper must be submitted to the committee, doctoral coordinator and doctoral administrator no later than October 15th of the third year.
- iii) The paper must be approved and the presentation completed no later than May 15th of the third year or the student risks losing good standing.

While these deadlines are used by the doctoral policy committee to evaluate adequate progress on the part of students, we encourage students to complete this process significantly earlier, such that the requirement is fulfilled by the summer after the second year. Completing the second year paper requirements before the start of the third year allows a student to focus on other research projects, submit his or her second year paper for publication, and begin work on the dissertation in the third year.

- b. Two recitation sections of Mgmt 101 must be completed.
- c. All course requirements must be fulfilled with no incompletes of any type on record and an overall grade average of at least B.
- d. The evaluation committee will review the performance of any student who has not met these considerations and decide, following a simple majority voting rule, whether to retain or dismiss the student. The committee will solicit input from faculty serving as advisors or readers for the second-year paper, from other faculty involved with the student in collaborative research, and faculty instructors for any classes taken during the third year, as well as information from the first- and second-year evaluations. In the event of a tied vote, the doctoral coordinator shall cast the deciding vote.
- e. Any student dismissed from the program has the right to appeal to the Vice-Dean for Doctoral Education at Wharton.

5. For fourth-year students, the following rules shall apply:

- a. The dissertation proposal must be approved by May 15th.
- b. The evaluation committee will review the performance of any student who has not met these considerations. The committee will also solicit input from faculty serving as dissertation committee members and from any other faculty involved with the student in collaborative research to decide, following a simple majority voting rule, whether to grant fifth-year funding. In the event of a tied vote, the doctoral coordinator shall cast the deciding vote.
- c. Any student dismissed from the program has the right to appeal to the Vice-Dean for Doctoral Education at Wharton.

6. See also the guidelines for managing overlapping paper topics across courses

http://www-management.wharton.upenn.edu/phd/docs/Guidelines_Overlapping_Topics.pdf

Appendix 7. Marketing Ph.D. Policies and Requirements

For the most up to date Marketing Departmental policies and requirements, visit the department's [PhD in Marketing](#) webpage and the department's [Doctoral Student Manual of Policies and Procedures](#) webpage.

Program of Study

The Ph.D. program in marketing is based on a minimum of sixteen* graduate level courses:

- Seven **Marketing Seminars**: MKTG 960, 961, 963, 964, 966, 967 and 970. These seminars cover those areas of marketing in which all Ph.D. marketing student should have basic competence, not only to understand the contemporary literature, but to contribute to the future of the discipline. All marketing students entering in Fall 2008 or later, must take these seminars.
- Two **Statistics** courses to satisfy the PhD Program Statistics Requirement listed in Section 5.4 of this manual
- One of the following three **Economics** sequences: 701 and 703, OR ECON 681 and 682, OR BPUB 250 (which students register to take as BPUB 999)
- Two to three courses in a **Related field**, such as Communications Research, Decision Processes, Econometrics, Economics, Information Systems, Operations Research, Psychology, Sociology, Statistics
- Three to four **Electives** - as well as the dissertation.

Of the sixteen courses, a maximum of four* can consist of **transfer courses** for graduate work at other universities. To transfer credits from another University, a student needs to submit a written request to the Department PhD Coordinator during his/her first year. In addition, only two of the sixteen courses can be independent study courses.

* For students entering Fall 2006 and later

Admission to Candidacy

Before admission to candidacy, the student is required to

- Complete the required 16 cu's of graduate level courses as described in the Program of Study above.
- Take and pass the Marketing preliminary examination offered at the end of the first year.
- Complete a faculty-supervised first year research paper due approximately September 1, before the start of the second year. Present the first year paper in the seminar series in January of the second year.
- Complete a faculty-supervised second year research paper due approximately September 1, before the start of the third year. (Effective for students entering the program in Fall 2009)
- Complete all forms required by the University.

Appendix 8: Operations and Information Management Ph.D. Policies and Requirements

Departmental Course Requirements

A total of 16 course credits are required for graduation. Up to four appropriate graduate course credits can be transferred from another graduate institution, after approval of the student's advisor and of the PhD coordinator. This section outlines the remaining requirements for all PhD students in OPIM.

Core Courses

All students must take and earn a grade of B+ or better in each of the department's three core courses:

- OPIM 900 Foundations of Decision Processes;
- OPIM 940 Operations Management; and
- OPIM 955 Research Seminar in Information Systems.

Statistics

The Wharton School requires that all PhD students demonstrate proficiency in the material covered in one of several one-year sequences of statistics courses. OPIM Department Ph.D. students can satisfy the Wharton requirement with one of the following sequences: STAT 500-501; STAT 500-512; STAT 520-521; STAT 541-542 STAT 550-551; or ECON 705-706.

Students may demonstrate proficiency by either receiving a grade of B- or better in each course, or by passing a waiver exam administered by the Economics or Statistics Departments, or by transferring a comparable graduate-level course from another institution. Students may choose courses across sequences (e.g., STAT 520 and STAT 542) with permission from the PhD coordinator. Students are expected to complete their statistics requirements during their first year, before their qualifying exam.

Teacher Development Program

The Wharton School requires all PhD students to complete the Teacher Development Program (TDP). Students should complete this program before being admitted to candidacy. Waivers of the TDP are granted under the following conditions: prior teaching experience recognized teaching awards, college-level education courses.

Course Requirement for Each Area of Specializations

This section provides a brief description of each of the three areas of specialization within the department and lists the required courses for each area. Beyond these required courses, students have the flexibility to construct a set of courses that supports their progress towards the completion of a dissertation. The particular program of study adopted by the student should be developed in consultation with the student's advisor.

Decision Processes (DP)

DP focuses on making choices when faced with ambiguity, uncertainty and conflicting views and motivations of the principal stakeholders. This specialization gives students a theoretical basis and applied orientation for studying the behavior of individuals, firms and policymakers. Students are guided by formal, normative models of how decisions should be made by individuals and groups, based on economic and statistical decision theories, as well as by descriptive analyses of how decisions are actually made, drawing on recent work in cognitive and experimental psychology as well as experimental economics.

In addition to the departmental core course and Wharton Statistics requirements, DP students are required to take two economics courses (most often ECON 681-682). Beyond these requirements, students typically take courses in statistics, economics, marketing, psychology, and organizational behavior. These courses are offered by the OPIM Department, Wharton's Management, Marketing, and Statistics Department, as well as Penn's Psychology Department.

The qualifying exam in DP typically draws from material covered in OPIM 900, along with that covered in the students' core economics and statistics sequences.

Information Systems (IS)

The IS track covers a broad range of research interests. Students interested in information and decision technology (IDT) focuses on the analytical and information technology-based methods for managing complex organizations. This interested in information strategy and economics (ISE) focus on understanding the strategic aspects of information and information management.

In addition to the department core and core statistics sequence, all students focusing on IS are required to take a year-long microeconomics sequence (ECON 681-682 or ECON 701- 703).

Beyond these required courses, IS students typically pursue courses that support their specific research interests. Those with an interest in IDT concentrate on the theory, development, and application of computer-implemented technology for solving problems. As such their coursework may include courses related to knowledge discovery and data mining, computation of equilibria, and logic modeling, to name a few. These courses may be offered by the OPIM Department, Wharton's Marketing or Statistics Department, Penn's Computing & Information Science Department, and other departments across the university. Students with an interest in ISE take additional courses on the methodological and theoretical foundations in economic theory, statistics/econometrics, and information technology.

The qualifying exam for IS students typically draws from material covered in OPIM 955, along with that covered in the students' core economics and statistics sequences.

Operations Management / Operations Research (OM / OR)

OM / OR focuses on the processes that define an organization's outputs, as well as the methods commonly used to analyze these processes. Students specializing in OM are interested in a wide range of functions and organizational types, including operations strategy, product design, process design, technology management, capacity planning, inventory control, supply chain management and service system planning. Students interested in OR focus more on the application of mathematical models to these areas.

Because a strong knowledge of OR tools is an important foundation for much of OM research, OM / OR students are required to master the same set of coursework. In addition to department core courses and the Wharton statistics requirement, OM / OR course requirements are as follows:

- A year of microeconomics (ECON 681-682 or ECON 701-703)
- Math programming (OPIM 910)
- Stochastic processes (OPIM 930)
- An advanced course in operations management (OPIM 941)

Beyond these required courses, OM / OR students take a wide range of methodologically-oriented course offered by the OPIM Department and Wharton's Marketing and Statistics Departments, as well as the Economics Department and other departments around the university. Many OM / OR students take a sufficient number of statistics that they obtain a Master's in Statistics on their way to completing an OPIM Department Ph.D.

Examples of tools courses that students can take include the following: advanced linear programming (OPIM 913), advanced nonlinear programming (OPIM 914), game theory (ECON 713), integer programming (OPIM 916), queuing theory (OPIM 932), dynamic programming (OPIM 934), and research methods (PPMT 900 or MGMT 953).

The qualifying exam in OM / OR typically draws from material covered in OPIM 930, and OPIM 940.

Qualifying Exam

The qualifying exam consists of a written exam, an oral exam and the student's summer paper. The qualifying written exam is taken at the start of the student's first summer. Each specialization determines the format of their exam. After the completion of the written exam, the student spends the summer working on his or her summer research paper. The oral exam is scheduled at the end of the summer and students are notified of their results shortly afterwards.

OPIM Department faculty members evaluate students based on the quality of their summer paper and their responses on the written and oral portions of the exam. If the faculty determines that the student has sufficiently mastered the skills needed to continue progress towards a PhD in the chosen specialization, then a student receives a passing grade. If the faculty determines that a student is missing some basic skills, it can specify remedial steps the student must undertake to receive a passing grade. These steps typically include, but are not limited to, reworking responses on the written exam, improving the summer paper and/or completing specific courses with a sufficient grade, and retaking portions of or

the entire written exam. The student must complete all qualifying exam conditions by May 31 of the student's second academic year.

If the faculty determine that a student is sufficiently far from meeting requirements (or if the student fails to meet all conditions by the May 31st deadline), then the student receives a failing grade and may no longer continue in the program.

Summer Paper

During the summer between their first and second years, all students must complete a research paper under the supervision of a faculty advisor. Students should identify a faculty advisor and a topic for their summer paper by the end of the second semester. At that time a short (1-page) summer paper proposal should be signed by the student and the advisor and returned to the PhD coordinator. Students should then work closely with their advisor throughout the summer. A completed paper must be submitted to the PhD coordinator at the end of the summer. Part of a student's qualifying exam performance depends on the quality of the student's summer paper. The goal is to write a publishable quality paper. This is an ambitious target for the first summer, but it is feasible: many students have indeed published their first summer paper.

Dissertation Proposal

The dissertational proposal is designed to provide a student with early and formal feedback from the faculty on the student's dissertation plans. The dissertation proposal defense should occur at the end of the student's third year, with the fourth year dedicated to the completion of the dissertation. The dissertation proposal should include preliminary results as well as a detailed plan for work that will be completed in the dissertation.

Dissertation Defense

The final requirement in the program is the dissertation defense, which should occur around the end of the student's fourth year.

Appendix 9. Statistics Ph.D. Policies and Requirements

The following new requirements for all PhD students were unanimously approved at the Dec 9, 2011 faculty meeting of the Departments of Statistics of the Wharton School. Student progress in meeting these requirements will be subject to annual review by all faculty at the beginning of every fall semester.

Course Load for PhD students

The number of *classroom courses* each student needs to take is 13. These are comprised of seven required courses:

Statistics 530, 531, 541, 542, 550, 551 and 552,

and six elective courses, most of which are expected to be taken among those offered by the Statistics Department. Courses from other departments in the university may also be taken subject to approval of the PhD coordinator(s). Students may waive some of the required courses based on classes taken prior to enrollment; waived courses must be substituted by electives to meet the 13 classroom course requirement.

It is common for students to meet the 13 course requirement by taking 6 classroom courses in the first year, 4 in the second and then one every semester.

Students often take non-classroom based courses (reading courses/independent studies). These courses are arranged on an informal basis between a student and one of the faculty members and provide a way in which students can engage research areas, perhaps leading to a dissertation topic.

There is a rich set of courses in the department and in the university outside of the department that are of interest to our PhD students. Students are strongly encouraged to take or seriously audit one course per semester beyond the third year. This leads to an environment of continual learning that adds greatly to the attractiveness of our department.

First Year Exam:

During the summer between the first and second year qualifying exams are given in mathematical statistics, statistical methods and probability theory. The department will meet at the start of the fall semester to discuss the performance of the students on these exams, their first year paper, as well as their performance on the first year classes. Satisfactory performance on these exams as well as the first year classes is required to continue in the program. In exceptional circumstances the Graduate Director(s) may arrange in advance, in consultation with the student, to defer or modify the first year courses or (portions of) the qualifying exam to the student's second year.

First Year Paper:

During the summer between the first and second year, students will complete an eight to ten page paper. The paper must be typeset in LaTeX and follow the conventions of an actual publication: abstract, introduction, execution, summary/discussion, and references. Several forms of the paper are conceivable, including but not limited to the following: (1) a replication with commentary of a published paper, (2) a literature overview of a reasonably specific topic, (3) a short simulation study of a method of interest, (4) a fairly straightforward generalization of a known result in mathematical statistics or probability theory. Students should find a faculty member willing to supervise the writing of this paper. Their first year academic advisor should be helpful in locating such a supervisor. The student may propose a topic of their own interest or shop around among faculty. This paper is to be presented at the start of the fall semester.

Second Year Paper:

During the summer between the second and third year, students will work on a more substantial paper under the supervision of a faculty member, ideally their PhD supervisor. This paper could be a preliminary version of a thesis proposal. There should be some attempt at original research or at least the framing of an interesting original research problem. It is recommended that the actual writing of the paper be coordinated with the Wharton doctoral writing program.

Third Year and Thesis Proposal:

By October of their third year, students should have a PhD advisor. Sometime during the third year students will present a formal research proposal to a group of at least three faculty members.

Wharton Doctoral Programs Degree Checklist

Ph.D. Requirements

University Requirements

- Qualifications Evaluation
 - Candidacy Exam
 - Dissertation Defense
-

Teaching Requirement

- TA requirement
- Teacher Development Program
- Requirement Waived
- Requirement Exception

Dissertation Progress Report

For each year after Candidacy Exam

- Year 1
 - Year 2
 - Year 3
 - Year 4
 - Year 5
 - Year 6
 - Year 7
 - Year 8
-

Certification – Ph.D. Requirements

- Form 152 - Committee Approval of Dissertation
- Doctoral Program Requirements Completed
- University Requirements Completed

Certification - Research Master's Requirements

- Research Requirement – Paper/Project
 - Coursework Completed – 8 CU minimum
 - Masters Final Exam
(Qualification or Preliminary exam may fulfill Masters Final Exam Requirement)
-

Doctoral Program Requirements –~~Department Requirements~~

- Coursework Completed
- Departmental Program Core Courses
- *Statistics Requirement
(see Section 5.4 in Policies and Procedures Manual)
- Exams - Qualification and/or Preliminary
- Defense of Dissertation Proposal

- Required Research Paper
(e.g. Summer Paper, 2nd Year Paper)

Certification

- Wharton Doctoral Program Requirements Completed

