Managerial Economics and Strategy
PhD Program Guidelines

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1 Introduction

The Managerial Economics and Strategy (MECS) PhD program is a joint program offered by the Managerial Economics and Decisions Sciences (MEDS) department and the Management and Strategy (M&S) department of the Kellogg School of Management, Northwestern University. This document is designed to communicate as clearly as possible the guidelines and procedures that govern the Managerial Economics and Strategy PhD program.

Two PhD coordinators administer the PhD program, one appointed from each department. If there are any questions regarding this document, or aspects of the program not discussed in this document, please see one of PhD coordinators.

These guidelines are organized by year in the program. In addition, there is a brief section at the end discussing dismissal from the program.

2 Requirements and Guidelines for First-year Students

2.1 Coursework

First-year PhD students are required to take nine courses in the first year. This corresponds to a load of three courses each term (Fall, Winter, Spring). Students often take or audit one additional course each quarter, but typically are not permitted to enroll in more than four courses in one term.

The courses listed below are the standard courses in the first-year curriculum. First-year PhD students are required to take these courses. When appropriate, a student may petition the PhD coordinators to be granted a waiver for one or more of these course requirements because the student has already mastered the relevant content. Evidence of this mastery -- good performance on a relevant prelim or similar examination, for example -- is necessary for a waiver to be considered. First-year PhD students may also petition the PhD coordinators to satisfy the econometrics requirement in their second year. This option is experimental and may not be available for future classes. Note that many second-year courses in economics and finance, though not currently in our program, require econometrics as a prerequisite. Students petitioning to postpone econometrics must propose a second-year curriculum that does include such courses.

1) Fall

   a) ECON 410-1 Microeconomics

   b) MECS 460-1 Foundations of Managerial Economics I: Static Decision Models

   c) Either MKTG 476 Introduction to Applied Econometrics I, **or** ECON 480-1 Introduction to Econometrics

2) Winter

   a) ECON 410-2 Microeconomics

   b) MECS 460-2 Foundations of Managerial Economics II: Dynamic Decision Models

   c) Either MECS 477 Introduction to Applied Econometrics II, **or** ECON 480-2 Introduction to Econometrics

3) Spring

   a) ECON 410-3 Microeconomics

   b) MECS 460-3 Foundations of Managerial Economics III: Game Theory

   c) Either MECS 485 Empirical Issues in Business Strategy, **or** MECS 462 Decision Theory

In addition to the above 9 required courses, students may take one additional course or independent study. Many students choose to take real analysis and/or probability from the math department at either the undergraduate or graduate level.

2.2 Prelim Exams

At the end of the first year (generally mid-June through early July, one exam per week), students take written examinations in three fields:

1) Microeconomics

2) Foundations of Managerial Economics, and

3) Any one of the following:

   a) Decision Theory, **or**

   b) Empirical Methods in Strategy, **or**

   c) Econometrics.

The Microeconomics and Econometrics exams are given by the Economics department and are the same exams that are taken by students in the Economics PhD program. Students must pass all three exams in order to continue in the program. If, at the end of the first year, a student fails one or more prelim exams, he or she will be given one opportunity to retake the failed exams before the start of the second year (the retake is usually scheduled for late August or early September). Students who do not pass all of their exams on the second attempt will be dismissed from the program and will not be eligible to register for the second (or any subsequent) years of study. Upon passing all preliminary exams, a student is admitted to Candidacy.

Note that the Foundations of Managerial Economics exam is written in three parts and the passing of all three parts is necessary to pass the Foundations prelim. However, students who fail one or two parts of this exam only need to retake those parts they failed. In contrast, if students fail any of the other prelim exams they must retake the whole exam.

2.3 Advisors

First-year students are not assigned faculty advisors. However, first-year students are encouraged to attend department seminars and to get to know faculty members. The PhD coordinators are available to offer advice on course planning and to direct students to relevant faculty contacts given the student’s research interests.

2.4 Research and Teaching Assistantships

First-year students are not expected to fulfill a research or teaching assistantship requirement, but students who feel comfortable with their first-year coursework are welcome to seek them out.

2.5 Summer Research Activity

Students who pass their exams at the end of the first year are expected to spend the summer working with, or under the supervision of, one or more faculty members to pursue research and/or directed reading. If students cannot find a faculty member to work with on their own, they should see one of the PhD coordinators early in the Spring quarter.

Students receiving summer funding are expected to be on campus during the summer. Written permission of a PhD coordinator is required for any absence longer than two weeks.

2.6 Activity Report

All PhD students are required to submit an annual activity report. An electronic copy of this report will be distributed in the Spring term. It must be filled out and submitted to the PhD coordinators promptly as part of qualifying for second-year funding.

In addition, PhD students may be required to submit a summer activity report at the end of the summer.

2.7 Progress Guidelines

First-year students' progress is measured by their course grades and their performance on the prelim exams. Students must maintain at least a B average and satisfy the prelim exam requirements discussed in Section 2.2 to be in good academic standing. Students who are not in good academic standing should meet regularly with the PhD coordinators to insure that they return to good standing as soon as possible. A student who is not in good academic standing at the end of the first year should expect to lose financial support and should expect to be asked to leave the program. Even though some research activity is expected in the summer after the first year, there is no direct evaluation of a student's research output in the first year.

During their first year, the PhD coordinators will meet with students if at anytime their progress is not satisfactory.

At the start of the second year, first-year students will receive, in writing, a report on their first-year progress.

2.8 Requirements for a Master's Degree

While the goal of our doctoral program is the awarding of a PhD degree, in certain circumstances a master of science (MS) degree may be awarded to qualified doctoral students.

Students who are continuing for a PhD degree may be considered for a MS degree if they are in good standing, they have completed a minimum of three quarters of coursework, they have no incomplete grades, they have maintained an overall "B" average, and they will not receive residency (transfer) credit toward their PhD coursework requirements from a previously earned graduate degree. Students who are awarded residency credit are made ineligible for a MS degree from Northwestern as stipulated in regulations of the Graduate School.

Students who are leaving the doctoral program without completing the PhD will be considered for the MS degree if they have completed a minimum of three quarters of coursework, they have no incomplete grades, and they have maintained an overall "B" average. If a student leaves the program after year two and wishes to be considered for the MS degree, any residency credit awarded will be rescinded so that he or she is eligible to receive the MS degree.

Finally, note that the minimum grade requirement is subject to change in the future.

3 Requirements and Guidelines for Second-year Students

3.1 Coursework

In their second year, students must again take at least nine courses. These courses may include or be supplemented by independent study courses. By the end of their second year, students must have fulfilled *three field requirements*. Each field sequence must consist of at least two courses. Normally, one of these fields is the sequence on competitive strategy and the structure of firms, MECS 449-1&2. Other fields may be selected from the doctoral course sequences offered by the MECS program, the Department of Economics, or another department at the Kellogg School. Field courses also count towards the functional area requirement at the school. Some fields that are commonly used to fulfill the requirement are:

- MECS 449-1 Competitive Strategy, and
  MECS 449-2 Strategy and Organizational Structure

- MECS 465 Contract Theory and Mechanism Design, and
  MECS 468 Topics in Economic Theory

- MECS 470 Operations Economics, and
  MECS 463 Stochastic Calculus and Control with Applications

- MECS-466 Social Choice and Voting Models, and
  MECS-516 Formal Political Theory

- ECON 450-1,2 and/or 3 Industrial Organization

- ECON 414-1,2 and/or 3 Economics of Information

- ECON 412-1, 2 and/or 3 Economic Theory and Methods

Students can also construct custom fields by combining other course offerings together or combining courses in different ways. However, the PhD coordinators must approve all field sequences that do not share the same course number, other than those on the above list. It is highly recommended that all second-year students discuss their proposed fields with a PhD coordinator at the start of the second year. Another resource that is useful for getting an overview of the many field courses at Kellogg and in the Department of Economics is the annual Field Day run by the Department of Economics in mid-September of each year. At this meeting Faculty make brief presentations concerning their course offerings for the upcoming year.

Students are strongly encouraged to enroll in independent study courses in their second year. This is one of the most effective ways to begin the research process. Also, like research assistantships, it is an excellent way to meet and work with faculty. Students are responsible for contacting faculty directly to arrange an independent study. Also, students who enroll in independent study courses should include a short description of their activity in that course in the annual activity report.

3.2 Advisors

Second-year students are not required to have a faculty advisor, however it is strongly encouraged. Faculty advisors can offer advice about coursework, research and teaching assistantship opportunities, and second-year papers. In choosing a second-year advisor, students are not limited to advisors who teach in the PhD program and are encouraged to seek out a faculty member whose research overlaps with the student's own research interests.

3.3 Department Seminars

Second-year students are expected to regularly attend department seminars. This is an excellent way to gain first-hand exposure to current research and for students to become familiar with researchers in their areas of interest. Students should attend at least one seminar per week when department seminars are offered (that is, during the Fall and Spring quarters and during those weeks that seminars are offered in the Winter quarter).

Some of the most relevant seminars and their times at present are the following:

- M&S seminar – Wednesday 1:30-3:00 pm
- CMS-EMS Economic Theory seminar (joint between Kellogg and Economics) – Wednesday 3:30-5:00 pm.
- The CMS_EMS Theory Bag Lunch Seminar (joint between Kellogg and Economics) – Thursday 12:10-1:10 pm.
- The MEDS Political Economy Seminar – Monday 12:15 pm.
- The Economics Department Applied Microeconomics Seminar – Friday 3:30-5pm.
- The Kellogg Operations Seminar – occasional Wednesdays

- The Finance Department Seminar – Wednesday 11:00 am - 12:30 pm.

The seminar need not be the same one each week, but must be chosen from those offered by Kellogg departments or the Economics Department. Students must keep a record of which seminars they attended each week and report this on their annual activity report.

3.4 Research and Teaching Assistantships

Throughout the second year, students should be involved in research and teaching assistantships at a recommended average level of 10 hours per week. It is fine to work more hours some quarters and less during others, as positions related to teaching and grading will often demand this. Students who cannot find positions on their own should contact a PhD coordinator.

This is a new requirement for our program. The PhD coordinators will be responsible for putting in place a process for matching students to faculty members, but the details of the process will be evolving. Every second-year student must submit their research and teaching assistantship requests through a centralized channel to facilitate equity and monitoring of the process, even when they independently arrange with faculty to fill positions that satisfy the requirement.

This work requirement is formally a condition of the fellowship support. The work requirements for students who do not receive fellowship support from Northwestern will be specified in writing by the PhD coordinators at the time of admission, or when the funding is acquired if it is after the admission decision.

3.5 Second-Year Research Papers

During their second year, students are expected to write two research papers. Each paper must have been approved by at least one faculty member from either M&S or MEDS who has read the paper and is willing to vouch for its quality. The papers are often papers written for one or more second-year courses. However, a term paper can fulfill the second-year paper requirement only with the approval of the course instructor.

3.6 Summer Research Activity

Students are expected to be involved in research in their second summer. If students are not working on their own, under the guidance of a faculty member, and are having trouble connecting with a faculty member on their own, they should see one of the PhD coordinators early in the Spring quarter.

Students receiving summer funding are expected to be on campus during the summer. Written permission of a PhD coordinator is required for any absence longer than two weeks.

3.7 Activity Report

All PhD students are required to submit an annual activity report. An electronic copy of this report will be distributed in the Spring term. It must be filled out and submitted to the PhD coordinators promptly as part of qualifying for third-year funding.

In addition, PhD students may be required to submit a summer activity report at the end of the summer.

3.8 Progress Guidelines

Second-year students' progress is measured by their course grades, their research (specifically, their second-year papers), and their integration into the research and teaching environment through seminar attendance and RA/TA work. Students must maintain at least a B average, complete the two second-year papers before the start of the 3rd year, and fulfill their field course and seminar attendance requirements to be in good standing. Students who are not in good standing at any point must meet regularly with the PhD coordinators to insure that they return to good standing as soon as possible. A student who is not in good academic standing at the end of the second year should expect to lose financial support and should expect to be asked to leave the program.

At the start of the third year, students will receive, in writing, a report on their second-year progress.

4 Requirements and Guidelines for Students in the third-year and above

4.1 Dissertation Proposal

Students in their third year must choose a dissertation advisor, form a Dissertation Proposal Committee and formulate and defend a dissertation proposal. Students should notify a PhD coordinator in writing when they form their Dissertation Proposal Committee. The committee must have a minimum of four members, at least two of whom must be members of MEDS or M&S, and at least one of whom must be from outside of MEDS and M&S. The chair of the committee must be from MEDS or M&S, and the Kellogg Senior Associate Dean for Faculty & Research must approve the committee. Students must defend their dissertation proposal no later than September 15 prior to the beginning of the fourth year in the program.

At the start of the third year, students will meet with the PhD coordinators to discuss choosing advisors, the third-year student research seminar requirement, and the proposal process.

4.2 Research and Teaching Assistantships

Third-year students must satisfy the same research and teaching assistantship requirements as second-year students (see 3.4 above).

4.3 Third-year Student Research Seminar

In their third year, students are required to participate in the third-year research seminar. In this course, each third-year student must give a presentation on their research at least twice during the year. Each student must also attend the other students' presentations. The expectation is that at least one of these presentations will be based on research that is either separate from or has advanced significantly beyond what was written in the second-year papers. Students must arrange for at least one faculty member other than the seminar organizer(s) to attend each of their presentations.

4.4 Department Seminars

All PhD students are expected to continue to regularly attend department seminars as described in Section 3.3.

Students who go on the academic job market must present their research in a department research seminar or bag lunch at least once before completing the program. It is recommended that this presentation take place before the academic job market. For most students, this means by the end of October in the year they are on the market.

4.5 Activity Report

All PhD students are required to submit an annual activity report. An electronic copy of this report will be distributed in the Spring term. It must be filled out and submitted to the PhD coordinators promptly as part of qualifying for continued funding.

In addition, PhD students may be required to submit a summer activity report at the end of the summer.

4.6 Summer Research Activity

Students are expected to be involved in research over the summer. Students should be working on their own, under the guidance of one or more faculty advisors.

Students receiving summer funding are expected to be on campus during the summer. Written permission of a PhD coordinator is required for any absence longer than two weeks.

4.7 Dissertation and the Job Market

Students should plan to finish the program in four or five years. Students should discuss their progress towards completion regularly with their dissertation advisor(s).

The Dissertation must be defended in front of the Dissertation Committee and accepted by The Graduate School. The rules for the Dissertation Committee composition and approval are the same as for the Dissertation Proposal Committee, and once again, the Kellogg Senior Associate Dean for Faculty & Research must approve the committee. These two committees need not have the same members (though they typically do).

Students should also be aware that the academic job market takes place in the Fall and Winter for jobs starting the following academic year. This means that it is necessary to have at least one strong piece of original research ready to use as a job market paper by, at the latest, October of their final year in the program.

It is also essential for any student who is even remotely considering being on the job market to discuss this with their advisor and notify a PhD coordinator by the beginning of the summer before.

The PhD coordinators will hold a meeting at the start of each academic year to discuss the job market. Any student even thinking of going on the academic job market must attend this meeting. In addition, the economics department holds meetings about the job market process that our students should plan to attend. While most students elect to interview for jobs at the ASSA meetings, if you are considering interviewing for jobs elsewhere (for example the AMA summer meetings or Informs) then it is essential that you communicate your plans to your advisors even earlier in the process.

4.7 Progress Guidelines

Third-year students' progress is measured by their research presentations (including at least those in the Student Research Seminar discussed in 4.3), their integration into the research and teaching environment through seminar attendance and RA/TA work, and, most importantly their dissertation proposal defense. Students must successfully propose before the start of the fourth year and must have performed satisfactorily in the other aspects to be in good standing. Students who are not in good standing should meet regularly with the PhD coordinators to insure that they return to good standing as soon as possible. A student who is not in good academic standing at the end of the third year or at any time during the fourth and later years may lose financial support and may be asked to leave the program.

In the fourth and later years, good academic standing requires ongoing, substantial progress towards completion of the dissertation. Two MECS faculty members on the dissertation or dissertation proposal committee must certify, on the annual Activity Report, that substantial progress is being made.

4.8 Funding

For students in good academic standing, fifth year funding, if necessary, will normally consist of tuition, health insurance and a stipend paid in connection with either a teaching or research work requirement. However, the stipend will be significantly lower than in earlier years and will be conditional on substantial work requirements (teaching and or research). Students planning to stay for five years are encouraged to seek outside funding for their fifth year. Note that such funding usually has application deadlines early in the year before.

For students in their sixth year and beyond, no systematic program funding beyond health insurance should be expected.

4.9 Degree Completion

The Graduate School has set a maximum time limit of eight years for successful completion of the dissertation. For more details, see the Graduate School bulletin.

5 Research and Conference Support

The M&S and MEDS departments are committed to providing basic research support to PhD students. This includes providing a limited supply of computers, software, office space, basic office supplies, and photocopying.

Students who have more substantial needs, such as funds to purchase data or run experiments, should plan to see out support from other sources, both inside and outside the university.

Sources of funds within the university include research centers such as the GM Strategy Center, the Center for Strategic Decision-Making, and many others. Students who need support should speak to their advisors for suggestions. In some cases advisors have research funds to support students directly. But in many cases, they do not.

Both the Graduate School and the department have resources available to graduate students, on a limited basis, for costs associated with attending academic conferences. Please note that a necessary condition for receiving any such funding from either the Graduate School or the department is that the student be scheduled to present a paper at the conference. A request for such funding should be made in writing to both PhD coordinators and the student’s advisor well in advance of the conference; funding cannot and will not be approved retroactively.

Normally the student will then be encouraged to apply to the Graduate School for partial funding that is matched by our program (either M&S or MEDS depending on the location of the advisor or the research nature of the conference). See the Graduate School travel grant website at

> http://www.tgs.northwestern.edu/financialaid/fellowshipsandscholarships/fellowshipsandgrants/conferencetravelgrant/

for details.

6 Dismissal

While every effort is made to admit only students who can satisfactorily complete our program, some students are occasionally asked to leave the program. Failure to pass the preliminary exams and failure to satisfactorily propose are the most common reasons for dismissal. In the event the PhD coordinators determine that a student has failed their prelim exam or otherwise failed to meet their academic standing requirements, or in the event the proposal committee decides that a student has not met the proposal requirements, a committee consisting of the PhD coordinators, the faculty who teach in the PhD program, and the proposal committee (if relevant) will evaluate whether the student should be asked to leave the program. All recommendations to dismiss a student will also be reviewed by the Kellogg Associate Dean of Faculty. This committee will also evaluate whether students who are asked to leave the program have met the requirements for a master's degree described in 2.8. The Graduate School may set additional requirements for the Master's degree.

If, at any time, a student feels the need to better understand the rules that apply to them or has any questions related to this document, they should talk to a PhD coordinator.