Managerial Economics and Strategy

PhD Program Guidelines

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Introduction

The Managerial Economics and Strategy (MECS) PhD program is a joint program offered by the Departments of Managerial Economics and Decisions Sciences (MEDS) and Strategy (STRT) 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 MECS program.

Two PhD program 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.

This document is updated as often as is practical. At any time, however, the policies in this document can be superseded by policy changes made by The Graduate School, Kellogg, or the MECS program.

1 First-year Student Requirements and Guidelines

1.1 Coursework

First-year PhD students are required to take nine courses corresponding to a load of three courses each quarter (Fall, Winter, Spring). In each quarter, students may take one additional course or register for an independent study. Some students choose to take real analysis and/or probability from the math department at either the undergraduate or graduate level. If the instructor allows it, students may take this fourth course on a Pass/Fail basis. Students typically are not permitted to enroll in more than four courses in one term.

The nine required first-year courses are listed below. When appropriate, a student may petition the PhD coordinators to be granted a waiver for one or more of these courses, if the student has already mastered the relevant content. Evidence of this mastery—e.g. good performance on a relevant prelim or similar examination—is necessary for a waiver to be considered.

Sequence	**Fall**	**Winter**	**Spring**
Microeconomics	Econ 410-1	Econ 410-2	Econ 410-3
Econometrics	Econ 480-1	Econ 480-2	Econ 480-3
Foundations	MECS 560-1	MECS 560-2	Research Workshop*

1.2 Candidacy

In order to continue in the program, a student is required to **demonstrate proficiency** in the three sequences described above. Within each individual sequence, proficiency is demonstrated by obtaining a cumulative GPA of 3.0 or greater in the courses in that sequence. (*For Microeconomics and Econometrics, the GPA is the average of all three course grades in the sequence; for Foundations, the GPA is the average of the two course grades of 560-1 and 560-2 and does not include the Research Workshop grade.) Students who fail to demonstrate proficiency in two or more of the sequences by the end of the Spring quarter of the first year are subject to Exclusion (dismissal from the program).

1.2.1 Remediation

If by the end of the first year, the proficiency requirement has been satisfied in two of the sequences but not all three, students are given the option to remediate a lower GPA in the third sequence in their second year. Specifically, if a student does not meet the 3.0 GPA requirement in one of the sequences, the student can retake as many of the core courses in that sequence in which they received a B- or lower grade when the course was initially taken in order to bring the GPA in that sequence area to 3.0. When a course is retaken, the grade in the retake supersedes the original grade for the purposes of calculating the GPA in that sequence and demonstrating proficiency. Students who have not demonstrated proficiency in all three sequences by the end of the Spring quarter of the second year are subject to Exclusion (dismissal from the program).

1.3 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.

1.4 Research and Teaching Assistantships

First-year students are exempted from the research/teaching assistantship requirement. Students may seek the permission of the MECS coordinators to do such work, but are generally discouraged from doing so.

1.5 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.

1.6 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. This is a requirement not only of the MECS program, but of Kellogg, and of The Graduate School of Northwestern. **Failure to submit a report may affect student eligibility for continued funding.**

1.7 Progress Guidelines

First-year students' progress is measured by their course grades. Students must maintain at least a 3.0 average and satisfy the Candidacy requirements discussed in Section 1.2 to be in good academic standing. Students who are not in good academic standing should meet regularly with the PhD coordinators to ensure 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 any time their progress is not satisfactory.

1.8 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, have completed a minimum of three quarters of coursework, have no incomplete grades, have maintained an overall "B" average, and will not receive transferred course credits toward their PhD coursework requirements from a previously earned graduate degree.

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.

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

2 Second-year Student Requirements and Guidelines

2.1 Coursework

In their second year, students must take a minimum of nine courses. These courses may include or be supplemented by independent study courses. Furthermore, these nine courses must contain at least three **sequences**. A *course sequence* consists of at least two courses within the same area of study, often identified by course numbers or labels. Five prominent examples of sequences are the following.

MECS: Political Economy, Organizational Economics, Economic Theory

Econ department: Information Economics, Industrial Organization

(Note that some of these sequences contain three courses. Students often take a complete sequence but may choose to take only two of the three courses in a sequence.)

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 are not labeled as a sequence. 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.

2.1.1 *Independent Study (MECS 499)*.

Occasionally, a student may be interested in an area of study that is not covered by an existing PhD course or is covered only superficially. Second-year students are allowed to develop and enroll in an independent study course in order to study such areas. An I.S. is meant to cover a clearly specified area, and should be designed in much the same way that existing PhD courses are designed (e.g. with a reading list and clearly specified deliverables in the form of writeups, surveys, or summaries of learned material). In contrast, for example, standard prep work for writing a paper (reading a narrow set of related papers, learning software, etc.) is unlikely to be approved as an independent study.

An independent study is taken under the direction of a faculty member willing to supervise such a course. In addition, the independent study must be approved by the two Directors of Graduate Study. Specifically, the following requirements apply to independent studies.

- Under the guidance of the sponsoring faculty member, the student must prepare a syllabus for the independent study. It should state the learning objectives, the course coverage (e.g. reading list), and deliverables (e.g. summaries, referee reports, etc.). Keep in mind that the course structure should mirror that of existing PhD courses in terms of work load and student responsibilities.

- The syllabus must be submitted to the DGS's *at least two weeks before the start of the corresponding academic quarter.* The DGS's will then approve/deny the request or ask for modifications.

- At the end of the quarter, the student must submit to the DGS's a 4-5 page summary of the key learning points the student has gleaned from the independent study. The original syllabus should be included as an appendix to this submission.

2.2 *Fast Fail Workshop* and *Seminar* Requirements

In addition to the minimum of nine courses, students must register for and attend the Fast Fail Workshop. The purpose of the workshop is to help students identify potential research topics.

In the fall and the spring quarters, students must attend either the Strategy Department's weekly seminar (which typically meets on Wednesdays, 1.30-3pm) or the Joint CET/CMS-EMS Theory Workshops (which typically meets Wednesdays, 3.30-5pm). When requested, students must notify the designated staff member by the first day of each quarter which of the two seminar series they will attend during that quarter.

In addition to the Strategy Department's weekly seminar and the Joint CET/CMS-EMS Theory Workshop students are encouraged to attend other 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. Some of the most relevant seminars and their times at present are the following:

- 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 Industrial Organization Seminar – Mondays 3:30-5pm.
- The Kellogg Operations Seminar – occasional Wednesdays
- The Finance Department Seminar – Wednesday 11:00 am - 12:30 pm.

2.3 Advisors

Second-year students are not required to have a faculty advisor. However it is strongly encouraged to interact with one or more professors to discuss your research interests. Such discussions may lead to an advisor relationship. 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.

2.4 Research and Teaching Assistantships

Throughout the second year, students with a standard financial aid package are required to perform research- and/or teaching-assistantships each quarter, at an average level of 10 hours per week. The compensation for this work is already provided as a portion of the monthly paycheck for standard financial aid packages. In some cases, workloads may vary across quarters, as positions related to teaching and grading will often demand this. Students who cannot find positions on their own should contact a PhD coordinator.

The RA/TA requirement has the following additional constraints.

- At least one of the three quarters must be RA work, and at least one of the three quarters must be TA work. (Exceptions are rare and must be approved by both PhD Coordinators.)

- Students are required to register this work requirement with the designated staff member each quarter, and **must not** submit separate time sheets for this work.

- The work must be for MEDS or STRATEGY faculty members. An exception can be granted for one quarter's worth of work per year to be performed for faculty in another department, when the student's research interests intersect with other departments, or in the unlikely event of a shortage of work opportunities within our two departments.

- TA work for the EMP (executive) program may not be used to fulfill the work requirement.

This work requirement is formally a condition of fellowship support. It is audited by the Dean's Office, and is required in order to continue receiving financial aid.

2.5 Second-Year Research Paper

During their second year, students are expected to begin the research process. To accomplish this, students must write and submit a research paper. The research paper must be supervised and eventually approved by an individual faculty member from either Strategy or MEDS. (This faculty member need not be the same person as the student's eventual dissertation advisor.)

The second-year paper serves as an introduction to research in economics and as an evaluation of the candidate's aptitude for performing original research that can eventually be transformed into a publishable paper. The **primary metric** for evaluating the second-year paper is whether it asks an interesting research question. Along these lines, the student should formulate the research question in clear economic terms, explain why it is important to provide an answer in connection to the existing research, and make some progress towards providing an answer. Examples of sufficient progress are: 1) identifying and assembling a new dataset, along with the documentation of some stylized facts; 2) a novel identification strategy that provides an estimate of an interesting causal effect; or 3) formulating a new model—or extending an existing model—together with some indication of progress towards characterizing the solution. Students are expected to answer faculty questions about the existing literature and their chosen line of research and future plans. The second-year paper often forms the basis for a thesis topic, but it is not necessary that it does so. **The submission deadline is the last day of September of the beginning of the third year.**

2.6 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.

2.7 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.

2.8 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 second-year paper 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.

3 Requirements and Guidelines for Students in the third year and above

3.1 *Fast Fail Workshop* and *Seminar* Requirements

Third-year students must take the Fast Fail Workshop as described above for second-year students.

Students in the third through fifth years must attend either the Strategy Department's weekly seminar or the Joint CET/CMS-EMS Theory workshops in the fall and spring quarters (students who are on the job market are exempted from attending seminars in the fall). Upon request, students must notify the designated staff member by the first day of each quarter which of the two seminar series they will attend during that quarter.

In their third and fourth years, students are required to give presentations 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 to attend each of their presentations.

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.

3.2 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 is composed of at least four faculty members, no fewer than three of whom are on the Kellogg faculty. At least one member of the committee must be from outside MEDS and Strategy. The committee chair and at least one other member must be from The Graduate School faculty, and the chair and at least one other committee member are expected to hold appointments in MEDS or Strategy. 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.

3.3 Research and Teaching Assistantships

Third-year students and above must satisfy the same research and teaching assistantship requirements as second-year students (see 2.4 above). For fifth-year students whose progress is deemed satisfactory by the PhD Coordinators, the work requirement will be waived throughout the fifth year of funding.

3.4 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.

3.5 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.

3.6 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.

3.7 Progress Guidelines

Third-year students' progress is measured by their research presentations (including at least those in the Student Research Seminar discussed in 3.1), 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.

3.8 Funding

The PhD program is technically a 4-year program. Reflecting modern trends, financial packages usually reflect the possibility of spending five years in the program. For students in their sixth year and beyond, however, no systematic program funding beyond health insurance should be expected. For students in that situation, other sources of funding should be investigated (e.g. faculty with grant money for assistants, etc.) The general case is that some work requirement is often involved for 6^{th} year funding, and total funding will be significantly less than annual funding in the initial funding package.

3.9 Degree Completion

The Graduate School has set a maximum time limit of eight years for successful completion of the dissertation.

4 Research and Conference Support

The Strategy 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 Strategy or MEDS depending on the location of the advisor or the research nature of the conference). See the Graduate School travel grant website for details.

5 Exclusion (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 1.8. The Graduate School may set additional requirements for the Master's degree.

6 The Graduate School's Standard for Satisfactory Progress

The Graduate School sets the minimum standard for satisfactory academic progress. To make satisfactory academic progress students have to meet both this minimum standard and the MECS requirements described in this document.

There are three sets of criteria that The Graduate School takes into account in determining whether or not students are making satisfactory academic progress:

- **Program length**. Doctoral students must complete all requirements for the Ph.D. within nine years of initial registration in TGS. Master's students must complete all requirements for the master's degree within five years of initial registration in TGS. Students who do not complete degree requirements by the established deadlines will not be considered in good academic standing, will not be eligible for financial aid and will be subject to TGS 513 (advanced continuous registration). Students may submit a petition to extend the degree deadline, but those students will not be eligible for financial aid and will be subject to TGS 513.

- **Grades and cumulative GPA**. A student whose overall grade average is below B (3.0 GPA) or who has more than three incomplete (Y or X) grades is not making satisfactory academic progress and will be placed on probation by TGS. Individual programs may have stricter criteria.

- **Internal milestone deadlines.** Doctoral students who have not been admitted to candidacy by the end of their third year (i.e., passed the qualifying exam), or who have not completed the dissertation prospectus by the end of the fourth year are not making satisfactory academic progress and will be placed on academic probation by TGS

Failure to make satisfactory academic progress as determined by either The Graduate School or the program will result in probation or exclusion (dismissal).

For the details about the probation, exclusion, and appeal process see The Graduate School web site on Satisfactory Academic Progress. The current location (subject to change) of this website is:

https://www.tgs.northwestern.edu/about/policies/satisfactory-academic-progress.html

Northwestern's Nondiscrimination Statement

Northwestern University does not discriminate or permit discrimination by any member of its community against any individual on the basis of race, color, religion, national origin, sex, pregnancy, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship status, veteran status, genetic information, reproductive health decision making, or any other classification protected by law in matters of admissions, employment, housing, or services or in the educational programs or activities it operates. Harassment, whether verbal, physical, or visual, that is based on any of these characteristics is a form of discrimination. Further prohibited by law is discrimination against any employee and/or job applicant who chooses to inquire about, discuss, or disclose their own compensation or the compensation of another employee or applicant.

Northwestern University complies with federal and state laws that prohibit discrimination based on the protected categories listed above, including Title IX of the Education Amendments of 1972. Title IX requires educational institutions, such as Northwestern, to prohibit discrimination based on sex (including sexual harassment) in the University's educational programs and activities, including in matters of employment and admissions. In addition, Northwestern provides reasonable accommodations to qualified applicants, students, and employees with disabilities and to individuals who are pregnant.

Any alleged violations of this policy or questions with respect to nondiscrimination or reasonable accommodations should be directed to Northwestern's Office of Equity, 1800 Sherman Avenue, Suite 4-500, Evanston, Illinois 60208, 847-467-6165, equity@northwestern.edu.

Questions specific to sex discrimination (including sexual misconduct and sexual harassment) should be directed to Northwestern's Title IX Coordinator in the Office of Equity, 1800 Sherman Avenue, Suite 4-500, Evanston, Illinois 60208, 847-467-6165, TitleIXCoordinator@northwestern.edu.

A person may also file a complaint with the Department of Education's Office for Civil Rights regarding an alleged violation of Title IX by visiting www2.ed.gov/about/offices/list/ocr/complaintintro.html or calling 800-421-3481. Inquiries about the application of Title IX to Northwestern may be referred to Northwestern's Title IX Coordinator, the United States Department of Education's Assistant Secretary for Civil Rights, or both.