Northwestern

Department of **Economics**

Graduate Student Handbook

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Changes since Last Edition

- Revised exemption cutoffs for taking preliminary examinations, and clarified rules for demonstrating competence in the three core areas.
- Deleted the field course requirements for entering students in 2016 and earlier in the goals for second and third year students section.
- University Prospectus and Graduation forms are now available through GSTS and not CAESAR.

This handbook is reissued each summer, and represents the policies and degree requirements of the Department of Economics as of the date on the cover.

The requirements in this document are in addition to, or further elaborate upon, the general degree requirements and the policies on satisfactory progress, probation and exclusion adopted by The Graduate School of Northwestern University.

Updates to the handbook during the academic year are be posted on the Department's website: https://www.economics.northwestern.edu

under the "Graduate" tab, and in the Department's *Graduate Connection* newsletter which is issued at the beginning of September, December and March.

Degree Requirements

M.A. DEGREE REQUIREMENTS

The department does not normally admit students for a terminal M.A. degree. Doctoral students who complete the ECON 410, ECON 411, ECON 480 sequences with a B average and achieve an "M.A. Pass" on the written qualifying examinations are eligible to receive the M.A. degree. The following requirements apply to students who are enrolled in other doctoral programs and to doctoral students not completing the first-year sequence.

Coursework Requirements

Codisework Requirements		
Courses	Units	
Core Courses:		
ECON 410-1 Microeconomics	1	
ECON 411-1 Macroeconomic	1	
ECON 480-1 Introduction to Econometrics	1	
Economic History or Development:		
One of those listed below	1	
ECON 315 Topics in Economic History		
ECON 323-1,2 Economic History of the United States		
ECON 324 Western Economic History		
ECON 325 Economic Growth and Development		
ECON 326 The Economics of Developing Countries		
ECON 327 Economic Development in Africa		
ECON 420-1 Advanced Topics in American Economic History		
ECON 420-2 Advanced Topics in European Economic History		
Electives:		
Economics (300 or 400 level) or approved related courses	5	
Total Required Units:	9	

Other M.A. Degree Requirements

Examinations: final oral examination Research/Projects: none specified

Master's Thesis: none

Other: paper in one course carrying graduate credit

Ph.D. DEGREE REQUIREMENTS

Coursework Requirements - Entering Class of 2016 and Earlier

Courses	Units
Core Courses:	
ECON 410-1,2,3 Microeconomics	3
ECON 411-1,2,3 Macroeconomics	3
ECON 480-1,2,3 Introduction to Econometrics	3
Economic History:	
ECON 420-1 Advanced Topics in American Economic History (or)	1
ECON 420-2 Advanced Topics in European Economic History	
Field Sequences:	
Three two-quarter sequences	6
Total Required Units:	16

Coursework Requirements – Entering Class of 2017 and Later

Courses	Units		
Core Courses:			
ECON 410-1,2,3 Microeconomics	3		
ECON 411-1,2,3 Macroeconomics	3		
ECON 480-1,2,3 Introduction to Econometrics	3		
Nine Approved Field Courses that must include:			
(a) At least one course in Economic History (ECON 420-1 Advanced Topics in American Economic History (or) ECON 420-2 Advanced Topics in European Economic History), and			
(b) Three field sequences of at least two-quarters each. A field sequence consists of two or three quarter-length courses as determined by the department.	9		
Total Required Units:	18		

Other Ph.D. Degree Requirements

Examinations: preliminary examinations in economic theory (microeconomics, macroeconomics, and econometrics); oral examination for approval of dissertation prospectus

Research/Projects: two research papers presented in the student seminar (ECON 501) or equivalent

Ph.D. Dissertation: original, independent research

Final Evaluations: oral dissertation defense

Supervised Teaching Experience: All doctoral students are required to act as a teaching assistant for at least one quarter. As part of these duties, the student must lead a weekly discussion section. Teaching experience is an essential part of graduate training. Foreign students must demonstrate acceptable English proficiency as prescribed by The Graduate School. Evaluations are made and kept as part of the students' record.

Financial Economics PhD Program

The Department of Economics and the Finance Department in the Kellogg School of Management have a joint PhD degree in Financial Economics. Students enrolled in that program should consult the student handbook for that program and not this document. Both programs have common first year requirements.

There are two points of entry into the joint graduate program in Financial Economics. The first is to apply directly when applying to graduate school at Northwestern. Admission to the joint program at this stage requires the application being approved by both the Economics and the Finance admissions committees.

The second way to get into the PhD program in Financial Economics is to apply for entry into the financial economics degree after the student has satisfied all of the Department of Economics requirements for entry into the second year. This rule applies equally to students initially enrolled in the Economics PhD program and to students initially enrolled in the Finance PhD program.

Economics students should initiate the process by contacting the Economics Director of Graduate Studies immediately after the results of the preliminary examinations are announced and the student has demonstrated competence on the three core areas. Applications must be approved by both the Economics and the Finance admissions committees. If the application is approved, the student initiates a degree transfer request to The Graduate School.

Satisfactory Academic Progress

This section summarizes important deadlines and criteria for maintaining satisfactory academic progress. Failure to maintain satisfactory academic progress can lead to being placed on probation by The Graduate School (TGS) and ultimate exclusion (dismissal) from the program and Northwestern University. This page should be read in conjunction with the general degree requirements and the policies on satisfactory progress, probation and exclusion of The Graduate School.

M.A. DEGREE

Program length: 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. Students who have exceeded their time to degree deadline and cannot remediate within the two-quarter probationary period may petition for an extension. Information on the conditions and requirements for an extension can be found on The Graduate School's Website.

Grades and cumulative Grade Point Average (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.

Ph.D. DEGREE

Program length: Doctoral students must complete all requirements for the Ph.D. within nine 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 and will not be eligible for financial aid. Students may submit a petition to extend the degree deadline, but those students will not be eligible for financial aid.

Grades and cumulative Grade Point Average (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.

Candidacy. Doctoral students must be admitted to candidacy (demonstrated competency in the three core areas of econometrics, microeconomics and econometrics) by the end of their first year. The process for demonstrating competence is described in the *Goals for First Year Graduate Students* section. Students failing to demonstrate competence will be excluded from the PhD program and from Northwestern University as of the final day of the Summer Quarter at the end of their First Year. (However, an "M.A. Pass" is also obtainable on the written preliminary examinations. It is sufficient for filing for a Masters Degree if the Economics 410, 411 and 480 sequences have been completed with a 3.00 grade point average, but it is not sufficient for staying in the Ph.D. program.)

Dissertation Prospectus: Students must have completed the coursework component of the Ph.D. degree and had their prospectus (dissertation proposal) approved by their committee no later than the end of the Fall Quarter in their fourth year of study, which falls on the last date of the 13th quarter of study. Any student not meeting this milestone will be placed on probation. A student who fails to resume satisfactory academic standing after at most two quarters, which is the say the last date of the Spring Quarter in their fourth year of study (last date of the 15th quarter of study), will be excluded (dismissed) from the program and Northwestern University.

Good Progress on Dissertation: Students in their fifth year and above must be certified as making "good progress" on their dissertation by July 31 at the end of each year. Any student not meeting this milestone will be placed on probation. A student who fails to resume satisfactory academic standing after at most two quarters, which is the say the last date of the following Winter Quarter, will be excluded (dismissed) from the program and Northwestern University.

Goals for First Year Graduate Students

CORE COURSE REQUIREMENTS

In their first year, graduate students are required to take the following courses:

- Economics 401 Mathematical Methods for Economic Theory
- Economics 410-1,2,3 *Microeconomics*
- Economics 411-1,2,3 *Macroeconomics*
- Economics 480-1,2,3 *Introduction to Econometrics*

You do not formally register for Economics 401 which is held prior to the start of the Fall Quarter. For the other courses you must register for a letter grade.

During the Summer Quarter at the end of your first year, students receiving a University Fellowship register for three units of Economics 590 on a pass/no pass (P/N) basis to maintain their full-time student status. Students who are not receiving University Fellowships need not register in the Summer Quarter for either University or immigration purposes. However, students with external funding that provide for summer tuition are advised to register in the summer as it is advantageous to complete the first eight quarters of high-tuition "residency" as soon as possible.

ADDITIONAL MATH TRAINING

Registering for Economics 410, 411 and 480 each quarter is sufficient for you to be regarded as a full time student. However, we recommend that students who have not taken math through real analysis before entering Northwestern should seriously consider taking an additional math course. For those who feel they need to take an additional course to improve their mathematical skills, the Department strongly recommends taking the Math Department's undergraduate *Real Analysis* course (Math 320-1) as a fourth course in the fall quarter. This course continues in the winter and spring quarters. This is a matter to discuss with your Advisor. Students with stronger mathematical backgrounds might consider the graduate level *Analysis* (Math 410-1,2,3).

DEMONSTRATE COMPETENCE IN THE THREE CORE AREAS

In order to be admitted to the second year of the Ph.D. program, students must demonstrate that they have achieved competence in the three core areas of study: microeconomics, macroeconomics, and econometrics.

Students can demonstrate competence in several ways:

- 1. By achieving a 3.40 grade point average across all three quarters in a particular area, the student has demonstrated competence in that area;
- 2. By passing the written preliminary examination in an area, the student has demonstrated competence in that area.
- 3. Students who only demonstrate competency in two of the three areas according to one of the above two criteria may nonetheless be determined to have achieved competence in the third area by achieving a 3.00 grade point average (GPA) across all three quarters in that particular area.

The written preliminary examinations are held in mid- to late-July at the end of the student's first year. (Students cannot attempt the preliminary examinations in the summer prior to their admission to the program.) Dates for the current year preliminary examinations are given in the *Graduate Connection* newsletter. In most circumstances, students will be informed whether they have demonstrated competency in all three areas of study by mid-August.

An "M.A. Pass" is also obtainable on the written preliminary examinations. It is sufficient for a Masters Degree if the Economics 410, 411 and 480 sequences have been completed with a 3.00 grade point average, but it is not sufficient for staying in the Ph.D. program.

Preliminary examinations for recent years are available through our website. A username and password are required. Please contact the Graduate Program Manager if you have forgotten these.

LANGUAGE REQUIREMENT

The primary source of funding for graduate students in the second through fifth years is as a Teaching Assistant (TA). To serve as a TA, students must demonstrate proficiency in spoken English. This can occur in a number of ways:

- Students whose countries of origin are Australia, Canada, New Zealand, the United Kingdom or the United States are exempt from demonstrating proficiency in spoken English.
- Students from other countries who scored 26 or higher (out of a possible 30) on the Speaking Section of the TOEFL Internet-based test taken prior to entry to Northwestern will have demonstrated proficiency in spoken English.
- All other students are required to take the Versant English Test which is administered soon after arrival at Northwestern in the weeks prior to the start of the Fall Quarter. Students must score at least 65 (out of a possible 80) on the Versant English Test to be eligible to be a TA.

Students who fail to pass the test will receive information on English as a Second Language (ESL) programs offered by the Graduate School. Students then have several options to demonstrate proficiency in spoken English:

• Retake the Versant English Test and score 65 or higher (out of a possible 80).

- Retake the Versant English Test and score 63 or 64 on two separate occasions. The tests with these scores need not be consecutive.
- Take the SPEAK test and score 50 or higher (out of a possible 60).
- Enroll in Linguistics 480 *The Language of Teaching and Teachers and* demonstrate the required level of English proficiency during the face-to-face teaching demonstration required as part of this course.

Please take meeting the language requirement seriously. If the Department has not received notification of satisfactory demonstration of proficiency by July 31, at the end of the first year, the student cannot be funded as a Teaching Assistant in their second year. This is a rigid Graduate School requirement, beyond the Department's control. The Department has a policy of not asking for waivers of this requirement. Otherwise qualified students have been denied Teaching Assistant funding in the past because they have not passed the language requirement.

Even students who are expecting to receive outside funding in their second year (for example, from a foreign government) are advised to meet this requirement as soon as possible during the first year. Outside funding rarely lasts for a student's full career at Northwestern, and passing the language requirement is a prerequisite for asking for Departmental financial aid in future years. Moreover, the University has a policy that students' must serve as a Teaching Assistant for at least one quarter during their time at Northwestern.

Goals for Second and Third Year Graduate Students

FIELD COURSE REQUIREMENTS

Students must take a minimum of nine approved field courses for **letter grades**. These nine courses must include:

- (a) At least one course in Economic History. Students must take either Economics 420-1 Advanced Topics in American Economic History or 420-1 Advanced Topics in European Economic History for a letter grade. In some years, additional economic history courses may be scheduled as Economics 498 Advanced Topics in Economics. The director of Graduate Studies will announce in the Graduate Connection newsletter if these courses meet the economic history requirement. Typically, Economic History courses are partially evaluated by the writing of a research paper. Students have one calendar year after taking the course to submit the paper.
- (b) <u>Three</u> field sequences of *at least* two-quarters each. A field sequence consists of two or three quarter-length courses as determined by the department.

At least six of the nine courses must be among those offered by the Economics Department. That is to say, they must carry an economics course number.

Procedures and Guidance on Field Course Selection

- Each year, the Director of Graduate Studies provides guidance on acceptable course sequences. This guidance is posted on the department's website.
- The Department will specify in advance for a course offered as Economics 498 *Advanced Topics in Economics* which, if any, field(s) it would partially satisfy.

- Courses that are not part of approved sequences may be counted at the discretion of the
 Director of Graduate Studies. In all cases the student must consult with the Director of
 Graduate Studies <u>prior</u> to undertaking a proposed sequence different from an approved one.
 The Director of Graduate Studies consults with relevant faculty before deciding whether to
 approve or disapprove a proposed sequence.
- Faculty members in each field (in consultation with the Director of Graduate Studies), and not the student, determine whether an outside course is acceptable. For example, a student who takes Economics 450-1, 450-2 and 450-3 does not need to seek permission to count them as a field in industrial organization, but a student who takes Economics 450-1, 450-2 and some other course and wishes to have this counted as a field in industrial organization needs permission *in advance* to do so.
- The Department organizes a "Field Day" that is typically held in the early afternoon of the day
 before the start of Fall Quarter. At this session goals for the second and third years of our
 program are explained, and short presentations are made by faculty describing the field
 course choices available in the Department and the Kellogg School of Management.
- Students are advised to seek guidance from faculty members who might be their future advisor or thesis committee members on the appropriate choice of field courses that will prepare them for doctoral research.
- With the exception of courses in Economic History, students should receive a letter grade at the end of the quarter in which they register for a course. Please see the Department's policy on incomplete grades, which is reproduced below.

Departmental Policy on Incomplete Grades

The Graduate School defines an incomplete grade as follows: "A grade of Y is given when a student does not submit all assigned work in a course; a grade of X is given when a student fails to take the final examination. All X or Y grades are incompletes and must be made up within one calendar year of the date the grade is incurred, ...; after one calendar year, the X or Y becomes a permanent grade on the record." Moreover, "[a] student whose overall grade average is below B or who has more than one incomplete grade or who fails to make progress toward the degree in accordance with the requirements adopted by the Graduate Faculty is not meeting academic standards."

Students who are not in "Good Academic Standing" are unable to receive financial aid, and receive warning letters from the Graduate School.

The Department implemented the Economics 501 seminar in the mid-1990s to provide a forum for presenting papers. Consequently, faculty are expected to limit field course assignments to those that are expected to be completed during the quarter the course is offered. In addition to the usual examinations, homework assignments and "referee reports," it was felt to be especially useful if faculty required students to prepare an "outline" or "prospectus" for a paper. The objective is to avoid the needless accumulation of incomplete grades that frequently cause students to be reprimanded by the Graduate School.

There are only two exceptions to this policy. First, the History requirement (Economics 420) can assign an incomplete grade for 12 months to permit completion of a history paper which is outside of the Economics 501 seminar. Second, econometrics courses can assign an incomplete only until the end of the vacation period following the quarter the class is in.

Otherwise, all and any incomplete grades require the permission of the Director of Graduate Studies. Students should notify the Director of Graduate Studies immediately of any violation of this policy.

TWO PAPERS PRESENTED IN THE ECONOMICS 501 SEMINAR

Each student must write and orally present two research papers in the Economics 501 *Graduate Student Seminar*. Two faculty member readers must approve the paper. It is the Department's intention that the Economics 501 seminar should be an opportunity to present work in progress that will hopefully become part of the student's dissertation.

First Paper

The Department expects that the first Economics 501 paper should be completed by July 31 at the end of the second year. One faculty member must sign the *Submission of an Economics 501 Paper* form by July 31 as part of the prerequisites for third year funding. This paper is then presented in the Economics 501 seminar during the Fall Quarter of the third year. Each seminar session is 50-minutes long. Presenters should be prepared to speak for thirty to forty minutes, and expect to receive questions.

Second Paper

The second paper is typically completed by the Winter Quarter of the third year and presented in the Economics 501 seminar during the Spring Quarter of the third year. The second paper may be a revised version of the first, but only if the readers feel that sufficient progress has been made.

Registration and Evaluation

Students should register for two quarters of Economics 501 on a pass/no pass (P/N) basis. Typically this is in the Fall and Spring Quarters of the third year. In each quarter, a pass grade for the quarter will be awarded by the Economics 501 instructor if:

- 1. A research paper is written and orally presented in the Economics 501 seminar.
- 2. Two faculty members sign the *Completion of an Economics 501 Paper* form signifying that the paper met the requirements for an Economics 501 research paper for the Ph.D. degree in Economics, and that they attended the presentation of the paper and affirm that it met required presentational standards. At least one of the faculty signing each form must hold a tenure-line appointment in the Economics Department (an exception to this condition is only permissible with prior written approval of the Director of Graduate Studies). The form must be received by the Graduate Program Manager within two weeks of the presentation or by the Friday of exam week of that quarter, whichever is earlier.
- 3. The student had satisfactory attendance at the seminar. It is mandatory that all third year students attend every Economics 501 seminar.

If the requirements above are not met, an "N" grade will be awarded for that quarter. A total of two pass grades in Economics 501 is required for a student to satisfy the Department's research paper requirement.

It is the responsibility of the student to arrange for the examination of their paper. The student should approach two appropriate faculty members to (a) evaluate the paper, and (b) attend the presentation. The student should approach faculty who taught classes which stimulated the student's interest in the topic and are also likely to serve on the student's dissertation committee. The presenter should provide both faculty members with copies of the paper at least one week in advance of the presentation.

Practical Information

The Economics 501 seminar is aimed primarily at third year students. Second year students should plan to attend some seminars in the Spring Quarter to gain some idea of the level of papers and presentation. Any second year student who has made good progress on their first paper can elect to present the paper in the spring quarter of their second year if they wish.

The seminar normally meets twice or three times a week in the Fall and Spring Quarters. The days and times are listed in the University class schedule. The seminar is organized by one or two faculty members each year, who attend each seminar.

An initial order of the presentations for Fall and Spring of the following academic year are given in the March edition of the *Graduate Connection* newsletter, based on two separate random drawings of names. Then in the September edition of the *Graduate Connection*, the actual dates for each presentation are given. Pareto-improving exchanges can then occur between students, with the consent of the organizers.

OTHER COURSES

In addition to the courses taken as part of field course requirements, students are encouraged to take additional courses that they find interesting. Unlike courses that count as part of the field requirements, students should generally audit these classes rather than take them for credit. However, students can take additional courses for a letter grade if they wish.

Students have to register for at least three units each quarter to be a full-time student. Students can use Economics 590 in their second year, and TGS 500 in their third year to supplement regular course registrations to obtain full-time status (multiple repeat registration is allowed). These course registrations should also be used in the Summer Quarter when regular for-credit courses are not scheduled.

SUPERVISED TEACHING EXPERIENCE

All doctoral students are required to act as a teaching assistant for at least one quarter at some point in their graduate career (this need not necessarily occur in the second or third years). As part of these duties, the student must lead a weekly discussion section. Teaching experience is an essential part of graduate training. Students who are fully funded for all years of their study from non-departmental sources should "volunteer" as an unpaid Teaching Assistant for one quarter by arranging this with the Associate Chair. Foreign students must demonstrate acceptable English proficiency as prescribed by The Graduate School. Evaluations are made and kept as part of the students' record.

WRITTEN AND VERBAL PRESENTATION SKILLS

The effectiveness of your research depends crucially on how well you can communicate your findings in writing and verbally. In addition, professional economists have to be able to communicate with students in the classroom, to clients, and to the general public. While these skills are essential for success on the job market, time is scarce during your job-market year, so it is good idea to start working on these skills early on in your graduate career.

The Economics 501 seminar and your duties as a teaching assistant provide opportunities for you to develop your skills. In addition, Northwestern University offers a number of resources for

developing writing and presentation skills. See our website for more information and links to resources.

A DISSERTATION PROSPECTUS PRESENTED AT AN ORAL EXAMINATION

The prospectus signifies two things. The first is that you have an acceptable thesis proposal, which you defend at an oral examination. The second is that you have completed all of your coursework which comprises (a) the preliminary examinations / demonstration of competence in the three core areas (b) the field course requirements, and (c) two Economics 501 presentations.

The oral examination ascertains whether the student's dissertation topic is feasible. The student selects a prospective thesis advisor and a committee of examiners. The student works with the advisor and committee to write a thesis proposal, which is the basis of the oral examination. It is important that the student choose a thesis advisor several months before the proposed oral examination. The advisor's assistance is invaluable in developing a thesis topic.

Rules on the composition of the committee are:

- 1. The committee must have three or more individuals.
- 2. At least two members of this committee, including the chair, must be members of the Northwestern University Graduate Faculty.
- 3. The chair of the committee must hold a tenure-line appointment in the Economics Department or have a voted courtesy appointment in the Economics Department.
- 4. In the event that the committee chair holds a courtesy appointment, at least one other member of the committee must hold a tenure-line appointment in the Economics Department.

Exceptions to conditions 3 and 4 are only permissible with prior written approval of the Director of Graduate Studies. The names of faculty outside Economics holding courtesy appointments are listed on our website in the section on the dissertation prospectus.

Time Limits

The Department expects that students making good progress should have successfully defended their dissertation prospectus by August 31 at the end of their third year. This is a requirement for fourth year funding.

Students must complete the coursework component of Ph.D. degree and had their prospectus (dissertation proposal) approved by their committee no later than the end of the Fall Quarter in their fourth year of study, which falls on the last date of the 13th quarter of study. Any student not meeting this milestone will be placed on probation. A student who fails to resume satisfactory academic standing after at most two quarters, which is to say the last date of the Spring Quarter in their fourth year of study (last date of the 15th quarter of study), will be excluded (dismissed) from the program and Northwestern University.

Administrative Procedures for the Dissertation Prospectus

When you have completed your course work, and have scheduled the oral qualifying examination, you can initiate the process by submitting a *Prospectus Committee* form to the Graduate School on-line using GSTS. Select the "TGS Forms" tab, and then select the prospectus from the pull-down menu.

The Graduate School then asks the Department to verify that the course work is complete and a successful prospectus defense occurred. So that the Department can do this, the candidate should complete the Department's *Certification of a Dissertation Prospectus* form.

The candidate should complete sections 1 to 5 of this form before the oral examination. These sections ask you to provide information on the completion of your course work (preliminary examinations, field courses, paper presentations, and the Economic History requirement).

The candidate should take the form to the oral examination, where the members of the candidate's committee can sign their acceptance of the prospectus in section 6.

The completed form, along with a copy of your transcript (which can be printed out from CAESAR), should be returned immediately to the Graduate Program Manager's office. The Director of Graduate Studies reviews the form and authorize the Graduate School to accept your dissertation prospectus.

A Note on Human Subjects

Even though we are a social science rather than a medical science, it is possible that government restrictions on the privacy of human subjects may apply to your PhD dissertation. If you are collecting new data, or even using previously collected data, on individual identifiable people, then you may have to get prior approval for your research from Northwestern's Institutional Research Board. You should read the FAQ section of their web site to see if it applies to you. The web site also includes information on the approval process, if that is necessary.

Goals for Dissertation Year Graduate Students

MAINTAIN SATISFACTORY ACADEMIC PROGRESS

By the end of the Fourth Year: Students will only be eligible for fifth year funding if their dissertation committee chair has certified by July 31 that the student has submitted a written paper sufficiently far in advance of the deadline for the faculty member to have comprehensively reviewed it, and can certify that it is of suitable quality to form at least one chapter of a dissertation. Coauthored papers are allowed, but can only be used by one student for purposes of paper certification.

At the end of the Fifth and each Subsequent Year: Students in year five and above can demonstrate making "good progress" by July 31 each year by (1) having already filed to receive their degree in the Summer Quarter, or (2) their advisor checks options A (student will be going on the job market in the coming year) or option B (student is not going on the job market but is making good progress) or Option C (student already has a job and is making good progress) on the form Certification of Good Progress By Dissertation Committee Chair for Students currently in Year 5 and Above. A student whose advisor either checks option D (student is not making good progress) or does not submit the form will be regarded as not making good progress and will be placed on probation.

A student who is placed on probation will have until the last date of the following Winter Quarter to demonstrate to their Committee Chair that they have resumed satisfactory academic progress. The Committee Chair will inform the Director of Graduate Studies in writing if and when satisfactory progress has resumed. A student who has not resumed satisfactory academic

progress by the last day of the Winter Quarter will be excluded (dismissed) from the program and Northwestern University.

DISSERTATION GUIDELINES

The Graduate School requires that "every candidate for the PhD degree must present a dissertation that gives evidence of original and significant research."

The Department of Economics has additional guidelines:

- 1. Each dissertation should contain at least three chapters.
- 2. At least one chapter should be single authored. A student can be exempted from this requirement by their dissertation committee, subject to the written approval of the Director of Graduate Studies.
- 3. Coauthored chapters with other students and faculty members are allowed, but at most one chapter can be coauthored with a faculty member. Each of the student authors of a coauthored paper can include it in her/his dissertation.

FINAL ORAL EXAMINATION

When the student's dissertation is complete, he or she must pass a final oral examination on the dissertation and related topics. The student requests the appointment of a committee of examiners, at least four weeks in advance of the examination date. This *Final Exam Application* form is submitted to the Graduate School on-line using GSTS.

Ordinarily, the examiners will be the members of the student's thesis committee. Rules on the composition of the committee are:

- 1. The committee must have three or more individuals.
- 2. At least two members of this committee, including the chair, must be members of the Northwestern University Graduate Faculty.
- 3. The chair of the committee must hold a tenure-line appointment in the Economics Department or have a voted courtesy appointment in the Economics Department.
- 4. Effective for all students whose prospectus was approved on or after September 1, 2014: In the event that the committee chair holds a courtesy appointment, at least one other member of the committee must hold a tenure-line appointment in the Economics Department.

Exceptions to conditions 3 and 4 are only permissible with prior written approval of the Director of Graduate Studies.

The Graduate School requires that all requirements for the doctoral degree must be met within nine years of initial registration in a doctoral program. After **nine** years, students will be placed on probation for unsatisfactory progress. Students who have exceeded their time to degree deadline and cannot remediate within the two-quarter probationary period may petition for an extension. Information on the conditions and requirements for an extension can be found on The Graduate School's Website.

Full information on completion procedures are posted on The Graduate School's website.

THESIS SUBMISSION

Following successful completion of the final examination, an electronic version of the dissertation must be submitted to The Graduate School. See The Graduate School's website for more information

PLACEMENT

The Department assists its students in obtaining jobs. The Placement Director coordinates the activity. Each year a timetable is issued that indicates the key dates for preparing job market materials.

The vitae of job market candidates are disseminated by the department on its web site. Candidates can also prepare a personal web page. See the Placement section of the *Goals for Dissertation Year Students* section of our web site for practical information on preparing your vita and website.

Students on the job market should inform the Placement Director of their preferred positions, any constraints they face, the state of their negotiations, and their acceptance of job offers.

Funding

See the Graduate > Funding section of the Department's website for the forms that need to be submitted to certify good progress to make a student funding eligible.

These funding rules apply to students who are admitted with full funding in their first year (i.e., with a University Fellowship). All other students should refer to their admission letter for information on funding for subsequent years, if any.

The funding criteria stated below are applicable to funding that is controlled and allocated by the Department. These are primarily Graduate Assistantships (which are usually referred to as "Teaching Assistantships") and University Fellowships. These criteria apply both to positions within the Department of Economics and also to positions funded by other Departments, such as the MMSS program, who subcontract the appointments to such positions to the Economics Department.

The funding criteria can also be taken as a definition of making "good progress" in the Ph.D. degree. As such they are used as a guideline for when the Department seeks to appoint people as instructors or recommends students for outside fellowships. Faculty also considers the progress of students when making appointments to Research Assistantships.

In rare cases, a student's admission letter may contain alternative funding criteria, which take precedence over these rules.

FOREIGN STUDENTS

Students from countries where English is not the native language must achieve a score of at least 65 on the Versant English Test to be eligible to be a Teaching Assistant. Students should have completed their spoken English requirement (meaning that the Department has a copy of their

results) by July 31 to ensure that they are eligible for funding as a Teaching Assistant. Only students whose countries of origin are Australia, Canada, New Zealand, the United Kingdom or the United States are exempt from sitting the Versant test. It is Departmental policy not to seek exemptions or alternative testing for individual students.

ACADEMIC YEAR FUNDING

First Year Students

A student's admission letter indicates whether or not they have been awarded a University Fellowship in the first year. Unfortunately, we cannot make additional fellowships available to unfunded students after enrollment. However, funding in the second year and beyond depends on the student's progress, as detailed below, and not on the nature of first year funding.

Second Year Students

Funding decisions for students entering their second year are announced after the grading of the preliminary examinations. Typically, this occurs in mid-August. Teaching Assistantships are awarded to students who have demonstrated competence in the three core areas: microeconomics, macroeconomics and econometrics. The exception is for those students who demonstrated competence in the three core areas based solely on first-year grades. Appointments for these students are announced in early August.

Third Year Students

The requirement for obtaining a Teaching Assistantship in the third year is completion of at least one Economics 501 paper which is certified as acceptable by a faculty member by July 31 at the end of the second year. While certification by a faculty member is required, presentation at the Economics 501 seminar is not. The presentation of the paper is usually in the Fall Quarter of the third year, although presentation in the Spring Quarter of the second year is encouraged. Appointments are announced in early August.

Fourth Year Students

Funding is only available for fourth year students who have completed their thesis prospectus by August 31 at the end of their third year. The thesis prospectus requires a successful thesis proposal defense and completion of all course work and field papers.

The nature of the funding is a Teaching Assistantship in the Fall and Winter Quarters, followed by a University Fellowship in the Spring Quarter. The latter requires the student's dissertation committee chair to certify by February 15 that the student is expected to enter the job market in their fifth year. In the absence of such certification, the student are funded as a Teaching Assistant in the Spring Quarter.

In addition, the Department awards the Robert Eisner Memorial Fellowship to one fourth year student. To be eligible, students have to have met the standard requirements for departmental funding. This award recognizes a student who has distinguished his or herself in both teaching and research.

We cannot guarantee that Teaching Assistant funds will be available for students whose thesis prospectus is completed after August 31. In any event, a Teaching Assistantship will not be awarded for any quarter in which the student has not completed the thesis prospectus. For example, a student completing the prospectus in November of the fourth year will not receive funding for the Fall Quarter, and will only be funded in the Winter and Spring Quarters if there are any unallocated Teaching Assistantships remaining.

Fifth Year Students

Students are only be eligible for fifth year funding if their dissertation committee chair has certified by July 31 that the student has submitted a written paper sufficiently far in advance of the deadline for the faculty member to have comprehensively reviewed it, and can certify that it is of suitable quality to form at least one chapter of a dissertation. Coauthored papers are allowed, but can only be used by one student for purposes of paper certification.

Provided a satisfactory written paper is provided, the dissertation committee chair can indicate whether or not the student will be on the job market in their fifth year. If the student intends to be on the job market, the nature of the funding is a University Fellowship in the Fall and Winter Quarters, followed by a Teaching Assistantship in the Spring Quarter. If the student withdraws from the job market prior to the ASSA meetings, the Winter Quarter fellowship will be converted to a Teaching Assistantship.

In the event that there are still funds available after all of the qualified students in years two through four and the job-market fifth year students have been funded, other fifth year students who have provided a satisfactory written paper will be supported. These students perform Teaching Assistant duties in every quarter that they are funded. However, if the student's dissertation committee chair certifies by February 15 that the student is expected to enter the job market in their sixth year, the Spring Quarter Teaching Assistantship is converted to a University Fellowship. (Note that if the student took advantage of a University Fellowship in the Spring Quarter of their fourth year, they are not eligible again in their fifth year.)

If the student has not provided a written paper, or if the paper is not of sufficient quality to form at least one chapter of a dissertation, or if the student's dissertation committee chair certifies that the student is not making good progress on their dissertation, the student is not eligible for any fifth year funding.

Sixth Year Students on the Job Market

Students need to reaffirm that they will be on the job market by asking their dissertation committee chair to submit a form by July 31 certifying that a satisfactory draft of a job-market paper has been submitted. Advanced students are eligible for a maximum of three quarters of University Fellowship. Any remaining quarters of eligibility that the student has not used in their fourth or fifth year can be used for sixth year funding. (The Department suggests that students give priority to taking a fellowship in the Winter Quarter, as they will be traveling and unable to undertake alternative funding such as Teaching or Research Assistantships.) If the student withdraws from the job market prior to the ASSA meetings, any remaining quarters of fellowship are withdrawn. Students may be funded as Teaching Assistants in other quarters, but only if there are still funds available after all of the qualified younger students have been funded.

Sixth Year Students Not on the Job Market

In the event that there are still funds available after all of the qualified younger students, and the job-market sixth year students, have been funded, other sixth year students will be supported. To be eligible, the dissertation committee chair must certify by July 31 that the student is making good progress. These students perform Teaching Assistant duties in every quarter that they are funded. University Fellowships are not available to sixth year students who are not on the job market.

Seventh and Higher Year Students

In normal circumstances, University rules do not permit funding of students in the seventh and higher years. The Department can petition WCAS for funding as a Teaching Assistant only if (a) there are still funds available after all of the qualified younger students have been funded, and (b) there is an inadequate number of Teaching Assistants to meet classroom needs. The dissertation committee chair must have certified by July 31 that the student is making good progress, and preference is given to those on the job market. However, University Fellowships are not available, even in the event that the student is on the job market.

SUMMER QUARTER FUNDING

First Year Students

A student's admission letter indicates whether or not they have been awarded a Summer Graduate Fellowship at the end of the first year. Unfortunately, we cannot make additional fellowships available to unfunded students. However, funding in the summers at the end of the second through fourth years depends on the student's progress, and not on the nature of first year funding.

Second through Fifth Year Students

The Department has a budget of Summer Graduate Fellowships to support some, but not all, students in the summers at the end of their second through fifth years. The Graduate School and the Weinberg College of Arts and Sciences has the following requirements for recipients of Summer Graduate Fellowships. Students must:

- have been eligible for departmental funding during the previous academic year,
- be intending to register in the following Fall Quarter (unless you are graduating at the end of Summer Quarter)
- conduct academic pursuits, and submit a report on these activities by the Friday prior to the start of Fall Quarter,
- do not hold an outside fellowship that provides summer tuition and stipend;
- limit any work for pay either outside of Northwestern University or as an hourly paid research assistant within Northwestern University to a maximum of 120 hours between June 15 and September 15; and
- not take more than three weeks of "vacation" or non-research time away from campus (it is permissible to be absent from campus to conduct research).

The acceptance form for summer funding must be submitted between May 1 and May 15 each year.

Sixth Year Students and Beyond

The University only funds summers up until the fifth year. Older students can seek Research Assistantships or teach in the Summer Session.

Summary of Continuation and Academic Year Funding Rules

These Departmental rules are in addition to general Graduate School requirements on good academic standing and the need to maintain a B average. In addition, Teaching Assistantships require students to have met the Graduate School's English-language requirements by July 31.

Entry Into	Continuation	Academic Year Funding
Second Year	Demonstrated competence in the three core areas: microeconomics, macroeconomics and econometrics	(See text for Summer Quarter Funding Rules) Demonstrated competence in the three core areas: microeconomics, macroeconomics and econometrics. Funding is as a TA.
Third Year		Certification of one Economics 501 paper by July 31. Funding is as a TA.
Fourth Year		Thesis Prospectus by August 31 (Successful thesis proposal defense, plus completion of all course work and field papers). Funding is as a TA.*
Fifth Year	Thesis Prospectus by end of Spring Quarter of Fourth Year (deadline of the end of the Fall Quarter of fourth year plus two quarters of probation)	 Certification by Committee Chair by July 31 that the student has a written paper of suitable quality to form one chapter of a dissertation. If the Committee Chair also certifies that the student intends to be on the job market, funding is in the form of a Fellowship in Fall and Winter Quarters, and TA funding for Spring Quarter. If the student has a satisfactory paper but is not going on the market, funding as a TA is not guaranteed and is only available if there are any funds remaining.* Fifth years without a satisfactory paper are generally not funded.
Sixth Year	Certification by Committee Chair by July 31 of "good progress" on dissertation. [®]	Certification by Committee Chair that the student intends to be on the job market then funding is in the form of a Fellowship in Fall and Winter Quarters, and TA funding for Spring Quarter.* Non-job-market sixth years are generally not funded
7+ Years	Certification by Committee Chair by July 31 of "good progress" on dissertation required each year. [®]	Students in years 7 and above are generally not funded, and are not eligible for Dissertation Year Fellowship funding

^{*} Students in years 4 and 5 can convert their Spring Quarter TA funding to a Fellowship in the year before they go on the job market.

^{*} Students cannot receive more than three quarters of Dissertation Year Fellowship funding.

[®] Students failing to demonstrate "good progress" will be placed on probation, and have two quarters to resume satisfactory progress.