

Northwestern  
Department of Economics

Northwestern  
**Kellogg**

Joint PhD program in Financial  
Economics

# Graduate Student Handbook

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## **Changes since Last Edition**

- Information on sixth-year funding.

This handbook is reissued each summer, and represents the policies and degree requirements of the Department of Economics and the Kellogg School of Management 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 will be posted on the program website.

## Entry into the program

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 field after the student has satisfied all 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. Students should initiate the process by contacting the Director of Graduate Studies in the Department they are currently enrolled in. Applications must be approved by both the Economics and the Finance admissions committees. If the application is approved, the student will initiate a degree transfer request to The Graduate School.

## Degree Requirements

### Coursework Requirements

| Courses   | Units |
|---|-------|
| <i>Core Courses:</i>  |       |
| ECON 410-1,2,3 Microeconomics   | 3     |
| ECON 411-1,2,3 Macroeconomics   | 3     |
| ECON 480-1,2,3 Introduction to Econometrics   | 3     |
| <i>Field Sequences:</i>   |       |
| Nine Approved Field Courses that must include:  |       |
| <ul style="list-style-type: none"> <li>• At least two of courses in Asset Pricing (FINC 585-1, 2, 3)</li> <li>• At least two courses in Corporate Finance (FINC 586-1, 2, 3)</li> <li>• Two approved Economics Field sequences of at least two quarters each</li> <li>• 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)</li> </ul> | 9     |
| <i>Total Required Units:</i>  | 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. Out of these, one paper is the second-year summer paper detailed below

*Finance Comprehensive Exam:* Students must pass a Finance Competence Requirement. This can be done by achieving a 3.6 GPA across all the finance doctoral courses taken by the student, which must include at least two courses of FINC 585-1,2,3 and two courses of FINC 586-1,2,3,

or by passing a comprehensive Finance exam. The Exam takes place at the beginning of the summer quarter of the second year, typically in June.

*Second-year Research Paper and Advisors:* Students need to complete a research project to be presented to the department in the first week of September at the end of the summer quarter of the second year. The research project must be supervised by an individual faculty advisor (who can be the same as, or distinct from, the Academic Advisor) selected by the end of the winter quarter. The second-year advisor need not be the same person as the eventual main dissertation advisor.

*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.

## 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.

**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. 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 by the end of the summer quarter of the second year of PhD study at Northwestern. This falls on the last date of the 8<sup>th</sup> quarter of study in any combination of the joint program, the PhD program in Economics or the PhD program in Finance. Requirements for candidacy are: (1) demonstrating 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); (2) demonstrating competency in Finance (the process for demonstrating competence is described in the *Goals for Second and Third Year Graduate Students* section); (3) performance on the second-year research project (the criteria for satisfactory progress is described in the *Goals for Second and Third Year Graduate Students* section); and (4) participation in the weekly finance seminars. Students failing to meet all three requirements 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 Second Year. Students that do not successfully pass candidacy can appeal this decision directly to The Graduate School (TGS). The program does not have a formal appeals process. <http://www.tgs.northwestern.edu/about/policies/satisfactory-academic-progress.html>

**Dissertation Prospectus:** Students must have completed the taught course 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 in any combination of the joint program, the PhD program in Economics or the PhD program in Finance. 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 the first year, students receiving a University Fellowship will register for three units of Economics/Finance/joint program 590 on a pass/no credit (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 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 serious 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 3.60 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 demonstrate competency in only one or two areas according to one of the above two criteria may nonetheless be determined to have achieved competence in all areas based on an overall evaluation of their performance in course work and preliminary examinations in all areas. Strong mastery of at least one area (as evidenced by course work and/or the area preliminary examination) will be treated as a positive factor in such an evaluation.

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 Department of Economics *Graduate Connection* newsletter. Students will be informed whether they have demonstrated competency in all three areas of study by mid-August.

There is also an appeals process, which can be initiated by a faculty member. Students will be notified of the outcome of any appeal before the start of the Fall Quarter.

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

## LANGUAGE REQUIREMENT

The primary source of funding for graduate students from the second year onwards 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 will be required to take the Versant English Test which will be 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 Program 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 our control. We have 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 two of FINC 585-1, 2, 3 *Asset Pricing*
- (b) At least two of FINC 586-1, 2, 3 *Corporate Finance*
- (c) Two approved Economics Field sequences of at least two quarters each
- (d) 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.

### Procedures and Guidance on Field Course Selection

- Each year, the Director of Graduate Studies will provide guidance on acceptable course sequences. This guidance will be posted on the program's website.
- 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 prior to undertaking a proposed sequence different from an approved one.

The Director of Graduate Studies will consult with relevant faculty before deciding whether to approve or disapprove a proposed sequence.

- The Economics 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 the various programs are explained, and short presentations will be made by faculty describing the field course choices available in the Economics Department and the Kellogg School of Management.
- Students are advised to seek guidance for 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 Program’s policy on incomplete grades, which is reproduced below.

### **Program 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."

Faculty are expected to limit field course assignments to those which are expected to be completed during the quarter the course is offered. 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.

### **FINANCE COMPETENCY REQUIREMENT**

Students must pass a Finance Competence Requirement. This can be done by achieving a 3.6 GPA across all the finance doctoral courses taken by the student, which must include at least two courses of FINC 585-1,2, 3 and two courses of FINC 586-1,2,3, or by passing a comprehensive Finance exam. The Exam takes place at the beginning of the summer quarter, typically in June.

### **TWO RESEARCH PAPERS**

Each student must write and orally present two research papers.

#### **Second year Research Paper**

Students need to submit a written paper summarizing a second-year research project by August 31 of the summer at the end of the second year. The research project must be supervised by an individual faculty advisor. Ideally, the advisor should be selected by the end of the winter quarter,

and must be selected by June 15 when the student must inform the Director of Graduate Studies of their choice. The research project advisor can be the same as, or distinct from, the student's academic advisor. The second-year advisor need not be the same person as the eventual main dissertation advisor.

The second-year project serves as an introduction to research in financial economics and as an evaluation of the candidate's aptitude for performing original research that can eventually be transformed into a publishable paper.

The paper will be orally presented to the faculty of the joint program in early September. The **primary metric** for evaluating the second year project 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 project often forms the basis for a thesis topic, but it is not necessary that it does so.

The student should demonstrate mastery of the literature on a specialized topic and should be able to explain the broader significance of the chosen topic. Further, the student should formulate an interesting question that addresses a gap in the existing literature, and offer some initial proposal on how to go about answering this question. Sufficient progress could consist of initial steps of assembling a new dataset and/or the documentation of some stylized facts. In the case of theoretical research, the formulation of a new model or extension of an existing model together with some indication of progress toward solving the model would constitute sufficient progress.

### **Third-year Research Paper**

A 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. Two faculty members sign the *Completion of an Economics 501 Paper* form signifying that the paper met the requirements for a research paper, 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 Finance 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 Economics Graduate Program Coordinator within two weeks of the presentation or by the Friday of exam week of that quarter, whichever is earlier (this is necessary for assigning of a grade in Economics 501).

### **Registration and Evaluation**

Students should register for two quarters of Economics 501 on a pass/no credit (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. In the Fall Quarter, the student has already satisfactorily presented their second-year research project to the program's faculty.
2. In the Spring Quarter, a satisfactory research paper is written and orally presented in the Economics 501 seminar (as described in the third-year research paper section).

3. The student had satisfactory attendance at the seminar. It is mandatory that all third year students attend every Economics 501 seminar.

Otherwise a fail grade will be awarded for that quarter. A total of two pass grades in Economics 501 is required for a student to satisfy the program's research paper requirement.

In summary, students in the joint program are required to attend the Economics 501 seminar in both the fall and Spring Quarters, but will only be making presentations in the Spring Quarter as their first paper will be presented in a separate seminar in September.

### **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.

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

An initial order of the presentations for Spring of the following academic year will be given in the previous March edition of the Department of Economics *Graduate Connection* newsletter, based on a random drawings of names.

### **WEEKLY FINANCE WORKSHOP**

Students are required to attend and participate in the weekly workshop in finance that meets during the fall and Spring Quarters.

### **OTHER COURSES**

In addition to the courses taken as part of field sequences, students are encouraged to take additional courses that they find interesting. Unlike courses that count as part of their field sequences, 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 Financial 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. 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 research paper presentations 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 the Department of Economics 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 our coursework which comprises (a) the preliminary examinations / demonstration of competence in the three core areas (b) field course requirements, (c) the Finance Competency Requirement, and (d) two research paper 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.

The purpose of the dissertation proposal defense is to present a well worked out dissertation plan to the committee. The committee must be able to evaluate with confidence whether the dissertation as proposed meets quality standards and can be successfully executed by the student. The dissertation proposal should articulate a plan through three papers, one of which should be at an advanced stage.

The main component of the proposal is an original research paper. The paper can be distinct from the second-year project or the third-year paper. In addition to the requirements for the second- and third-year papers above, the paper needs to be sufficiently well developed.

The student's dissertation committee must approve the proposal. The meeting with the dissertation committee is open to the Northwestern academic community. Students may and should attend other students' proposal defenses. When evaluating the student, the committee will take into account the student's previous efforts during the third year.

Rules on the composition of the committee are:

1. The committee must have four or more individuals.
2. At least two members of this committee, including the chair, must be members of the Northwestern University Graduate Faculty.

The chair of the committee must hold a tenure-line appointment in the Economics Department or the Finance Department.

### **Time Limits**

Students must complete the taught course component of Ph.D. degree and have 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.

### **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 CAESAR.

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

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 Coordinator's office. The Director of Graduate Studies will then review 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 be on track for good academic progress if they have completed their taught course requirements and the dissertation prospectus.

**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 at the end of the fifth and each subsequent year 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.

## FINAL ORAL EXAMINATION

When the student's dissertation is complete, he or she must pass a final oral examination (the defense) 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 CAESAR.

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 four 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 or Finance Departments or have a voted courtesy appointment.
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 or Finance Departments.

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

The Graduate School normally 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 can maintain their affiliation with Northwestern by registering each quarter (except summer) for TGS 513, *Advanced Continuous Registration*. Tuition is at a higher rate than TGS 512. This registration is considered less than half-time and therefore does not provide students with the ability to defer loans or extend visas.

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 program 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 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

### Students in Years One through Five

Doctoral students in the Financial Economics program are provided with a five-year financial aid package that includes the following:

- Stipend
- Tuition Scholarship
- Health Insurance – payment of the annual fee, NU Student Health Insurance Plan

Also, when they join Northwestern as first-year students, they are provided with two fellowships paid in full at the end of September. This funding is used at the student's discretion and no receipts are required. Funding includes:

- Moving allowance: \$500 (one-time only payment)
- Computer subsidy: \$2,000 (one-time only payment)

The stipend (a mix of fellowship and wages) and payment of tuition and health insurance fees are guaranteed for five years providing that students maintain satisfactory academic progress and meet other program-specific requirements outlined in the *Graduate Student Handbook*, issued to all students upon enrollment, as well as The Graduate School's *Regulations Governing Recipients of University Assistance* that was signed when they accepted the admission offer with financial aid.

Under the direction of Economics and Finance faculty, our doctoral students work as teaching assistants (TAs) and research assistants (RAs), receiving the necessary practical training needed as future faculty and resulting in better job placements. Students work as TAs and RAs for three years, spanning years two, three, and four. An academic year contains four quarters: fall, winter, spring, and summer. A portion of the stipend, or \$6,000, will be allocated toward wages for approximately 10 hours of work per week (100 hours total for the quarter), including summers. Students are not required to TA more than six (6) quarters total during this three-year period. The Director of Graduate Studies (DGS) oversees all work assignments.

In year five, a Research Fellowship enables students to focus solely on their research in preparation for the job market and dissertation defense. There is no teaching or research assistance requirement in the fifth year.

Students who accept this funding are obligated to report additional funding opportunities and awards to the Program's DGS. Examples include additional TA/grading/RA work, a teaching appointment within or outside of Northwestern, an internship, or a consulting opportunity. Additionally, any outside fellowships or other financial awards must be reported to the DGS.

### Students in Year Six

Students in years six and in good academic standing receive payment of their Northwestern student health insurance fees, fall quarter tuition, and fall quarter stipend only. Additional funding from their advisors or academic department, such as a small fellowship or TA/RA opportunities, may be available.

## 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.

## Funding for Research

Financial Economics doctoral students are provided with a total budget of \$4,000 to cover the cost of conference travel when presenting a paper (not just attending a conference). To maximize their funding, students should apply for matching conference travel grants through The Graduate School (TGS). Students may also use their conference travel budget to cover the expense of interviewing for faculty positions at the annual meeting of the American Economic Association (AEA)/Allied Social Science Associations (ASSA) meetings in January.

Northwestern has tremendously deep-set research resources for our doctoral students and faculty. Students are encouraged to view research resources found within Kellogg and Economics that feature data, software and computing, behavioral research, and support services through Kellogg's Research Support team.

Through Kellogg's PhD Program Office, doctoral students may apply for additional research funding for items such as data, software, subject fees, and research assistants. Opportunities for external fellowships may be available through the Office of Fellowships at Northwestern University.