Washington University in St. Louis
ARTS & SCIENCES

Department of Economics
Washington University in Saint Louis

A Guide to Graduate Study

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Contents

1 Synopses of Degree Requirements

1.1 For the Ph.D. Degree:

1.1.1 Courses

A Ph.D. in Economics requires 72 credit hours in 500-level courses with a B average with not more than 24 units of readings (597) and research (598) combined. In rare cases, a 400-level course, usually offered by other departments, may qualify; written permission of the Director of Graduate Studies is required. After consultation with the Director of Graduate Studies and his written permission, a student may substitute some units of readings or research for regular class credits.

Students may transfer up to 24 units of graduate work completed elsewhere but are advised to make such a transfer only after consultation with the Director of Graduate Studies.

The 72 hours must include:

1. theory: 12 hours of graduate economic theory (501, 502, 503, 504);

2. quantitative methods: 6 hours of quantitative methods: math and statistics (511, 512);

3. Econometrics: 3 hours of econometrics (513);

4. field courses: eight field courses (24 hours) beyond the courses listed under (1) - (3), with at least two courses in two fields and at least one course each in two other fields. Most of these courses should be taken in the second year.

Students occasionally may place out of a required course if there is sufficient evidence of comparable previous course work in the respective area. Written permission of the Director of Graduate Studies is required.

1.1.2 Prelim Exams:

Prelim exams must be passed in theory (micro and macro, see 6 below).

1.1.3 Field Requirements:

Student must pass two fields (see 7 below). Fields are currently offered in the following areas: Advanced Macroeconomics, Econometrics, Economic History, Economic Theory, Industrial Organization, Labor Economics, Political Economy, and Public Finance.

If appropriate, and with the permission of the Director of Graduate Studies, another field may be substituted. In particular the Finance field, offered in the graduate program of the Business School, may be chosen.

1.1.4 Paper and Presentation Requirement:

At least two papers, one each in the second and third year, and four advanced oral presentations (see 8 below).

1.1.5 Workshop Requirement:

Students must attend at least 35 seminars (see 9 below).

1.1.6 Proposal:

The student must write and present a Dissertation Proposal (see 10 below).

1.1.7 Dissertation:

The student must write a Dissertation, have it accepted by a Dissertation Committee, and pass an Oral Defense of the dissertation (see 11 below).

1.1.8 Teaching Experience:

The Department requires two semesters of teaching experience. Students demonstrate competence in teaching by serving as teaching assistants or by teaching a course, usually in the night or summer school and by giving several presentations of advanced material (see 8).

Students entering in 2004 or later will also have to fulfill a Graduate School teaching requirement (copies of the requirement are available from the Graduate Secretary). By the time student set up their Proposal (see 10), they will have had taught at least one course on their own and made at least four presentations of advanced material (see 8).

1.2 For the M.A. Degree:

The graduate program in Economics is a Ph.D. program. We rarely admit students seeking a terminal M.A. degree except when they are participating in a special joint program such as the interdisciplinary M.A/J.D. degree program in Law and Economics or the B.A./M.A. program.[1]

The requirements for an M.A. degree in Economics include the prelim examination (with an M.A. pass or better) and 30 hours of B average graduate work (400 or 500-level courses) in economics or other approved courses with at least 15 hours of 500-level courses in Economics including Macroeconomics I (501), Microeconomics I (503), and Introduction to Econometrics (513).

There are two ways of obtaining the M.A. degree in addition to the 30 hours plus prelim pass option: (1) by completing 27 hours of B average graduate work and writing an M.A. Essay; or (2) by completing 24 units of B average graduate work and writing an M.A. Thesis.

Students writing an M.A. Essay sign up for *Econ 598* for 3 units of credit although the Department may allow 6 units. The credit is not for just the writing of the Essay—the credit is for the research, and what the research is worth determines the amount of credit.

The Masters Thesis must be written in conformity with the rules of the Graduate School (see pp. 25-26 of the *Graduate School of Arts and Sciences, Bulletin*), with a public oral examination. The student will have a committee of no less than three professors who will examine him/her about the thesis. A *Thesis Title Scope and Procedure* form must be filled out about six months before the thesis is presented and sent to the Graduate Dean.

[1] Note that M.A. candidates do not qualify for financial support.

For Ph.D. students, the M.A. degree in Economics is awarded along the way to the Ph.D. degree. They are encouraged to file for the M.A. degree as soon as they have fulfilled all requirements since this may influence their University College or Summer School compensation.

2 An Ideal Chronology of Ph.D. Study

Summer Before the First Year
August – Mathematics Review

Year 1 (Also see Section 4)
Core Courses

Fall Semester	**Spring Semester**
501 Macro I	502 Macro II
503 Micro I	504 Micro II
511 Quant Meth I	513 Econometrics
512 Quant Meth II	

Attend at least five seminars during the first year.

Students who have performed exceptionally well during the Fall semester, can take a fourth course in the Spring semester with permission of the Director of Graduate Studies and the instructor of that course. Possible courses, not all of which are offered every year, include a math class, *Econ 5552*, The Theory of the Firm, *Econ 529*, Topics in New Institutional Economics, or *Econ 5875*, Financial Markets, Institutions, and Regulatory Change.

Summer after the First Year

June: Theory Prelims — August: Retake Theory Prelims if necessary.

Year 2

Field Courses — Second Year Paper — Attend at least ten seminars.

Year 3

More Field Courses — Third Year Paper and Presentation
Attend at least ten seminars. — Dissertation Proposal

Year 4

Prepare and Present Job Market Paper — Finish and Defend Dissertation

Most students will not finish their degree in four years. Some will finish it in five, most in six. Students should be aware that finishing early will serve as an important signal in the job market and should strive to finish as early as possible.

3 Financing

All funding for a particular student depends on maintaining "good academic standing" with the Department and the Graduate School. The next paragraph defines that term and clarifies the timing of funding decisions.

3.1 Good Academic Standing

Passing prelims, completing classwork for fields, and writing and presenting second and third year papers are the requirements for good academic standing in the first three years of graduate studies. These requirements, however, are not sufficient for good academic standing in later years of the program. We expect our students to be engaged in research that will lead to a dissertation.

To remain in good academic standing, and therefore receive funding in year five, a student must, by January of year four, be engaged in research that is expected to form the basis of a thesis.[2] This engagement can be proved in two ways. First (and most desirably), the student can complete a successful dissertation proposal. Second, this engagement may be demonstrated through a statement by at least one Economics Department faculty member confirming that the student is successfully working with her/him and committing to a proposal within a well specified time period. The statement will be made to the Director of Graduate Studies.

To receive funding in year six, a student must have a successful dissertation proposal by January of the fifth year in the program. A student who can provide credible evidence that a successful proposal is likely by the end of that Spring semester will be recommended for conditional funding. Students who have not proposed by the end of the fifth year will not receive funding in year six.

A student in any year beyond year six technically is no longer in good academic standing and will not be funded by the Department. Such a student is still encouraged to stay in residence, use departmental resources, finish the dissertation with the assistance of the dissertation advisors, and enter the job market with the help of the Department.

3.2 Types of Academic Year Financing

There are four types of financing available: Tuition Scholarships, Fellowships, Assistantships, and Senior Teaching Assistantships.

Tuition Scholarships: Tuition scholarships are awarded by the Graduate School (upon recommendation by the Department) and are based solely on satisfactory academic performance. Awards are made for up to 4 Senior Teaching Assistantships courses (12 hours of credit) per semester. Most students who are in 'good standing' will receive a tuition scholarship. These awards are non-taxable scholarships (see 3.6).

Fellowships: Fellowships are awarded by the Graduate School on the basis of merit. They are considered to be a taxable stipend by the IRS (see 3.6). Fellowship awards are made by the Department with the concurrence of the Dean of the Graduate School. They do not require specific duties. Fellowships are made with the expectation that the student will devote all of her/his time to courses or research.

Currently, the following fellowships are available within the University:

1. University Fellowships (UF) are generally available only to first year students. They are awarded to students who have superior academic performance and recommendations

[2] The Department starts working on its funding decisions for the following academic year in February.

before coming to Washington University. They do not require any duties except to maintain a B average in the first year courses.

2. The Chancellor's Graduate Fellowship for African Americans;

3. The John Stuart Mill Fellowship;

4. The Mr. and Mrs. Spencer T. Olin Fellowship for Women in Graduate Study;

5. Dissertation Fellowships (DF): The Graduate School and the Center in Political Economy offer Dissertation Fellowships. All students are encouraged to apply for these attractive fellowships which free the student of TA or other departmental duties. These fellowships make it much easier for the student to complete a dissertation on time and free departmental resources for the support of other students. Almost all awards are for one year and are not renewable. It is expected that the student will complete the dissertation by the end of the award period.

   Applications are due by February 24th of the Spring semester before the academic year for which they expect funding. The application has to be accompanied by an brief description of the student's dissertation research and a confidential letter of recommendation from the student's advisor. Applications for Graduate School Fellowships must be made through the Director of Graduate Studies. Applications for Political Economy Fellowships must be made to the Director of the Center in Political Economy. To be eligible for DFs a student must have passed the Oral Proposal before February 28th.

6. Continuing Fellowships (CF): Students who will not have proposed by February 28th but foresee a proposal in the near future can apply only for a CF which is funded at a somewhat lower level than a DF. When the student finishes her/his proposal, the Graduate School will immediately adjust the stipend to a DF level. In particular, a student who will propose during the Spring semester will receive full DF funding; a student who will propose in August or early September will receive almost full DF funding. Otherwise there is no difference between the two fellowships. The same application rules and deadlines apply

Assistantships: Assistantships are awarded by the Department with the concurrence of the Dean of the Graduate School. They are made on the basis of academic standing and teaching or research abilities. During the semester, the student will have an average of 15 hours of duties per week.

1. Departmental Teaching Assistantship (TA): TAs generally grade papers and hold office hours to help instructors. They may also be asked to lecture once or twice during the semester, run review or help sessions, write exams, prepare material for the course, and perform other duties that the instructor assigns. Students may be assigned a class in University College for which they will have sole responsibility. Each student must have supervised teaching experience.

2. Research Assistantship (RA): RAs are expected to help a professor with (possibly joint) research. This form of support often is considered attractive due to the research orientation and possible connection with a student's thesis. Students should consult with faculty about the availability of Research Assistantships.

Senior Teaching Assistantships (STA): Students who have superior teaching abilities can be appointed to teach regular classes in the College of Arts and Sciences. Such an assignment carries more responsibilities and somewhat higher remuneration than Teaching Assistantships or Research Assistantships. A Senior Teaching Assistantship requires the approval of the department, the Dean of the Graduate School, and the Dean of the College of Arts and Sciences.

NOTE: Students who receive full funding from Washington University through a fellowship or assistantship are expected not to "moonlight" — at Washington University or outside — during the academic year. It should be obvious that the current remuneration of at least $14,500 for not more than 15 hours per semester week is attractive, and the department expects you to study or do research during the remaining time.

3.3 Summer Support

The department offers numerous *Summer Research Fellowships*. Students apply for these funds with a proposal due towards the end of February.[3] The research can involve assistance to a faculty member. There are also teaching positions available in the Summer School. The Center for New Institutional Social Sciences offers summer support to students who commit to obtain a Certificate in Institutional Social Sciences. For more information on this attractive funding option, consult the website http://cniss.wustl.edu.

All summer support is available only to second-year through fifth-year students in residence at Washington University. The department discourages students who will take a permanent job in the fall from applying for summer funding.

3.4 The Federal Work Study (FWS) Program

American graduate students are eligible for support under the federally sponsored Federal Work Study (FWS) program if they meet certain federally defined criteria of financial need. When such students are appointed to teaching and research assistantships (based on their academic qualifications and merits), FWS funds can be used to provide a substantial portion of their stipends.

All American students must complete and submit the *Family Financial Planning Statement* (FFPS) in order to determine their eligibility for FWS support. Please cooperate with the Department and the Graduate School by providing detailed information on your financial circumstances. Failing to fill out the FFPS can jeopardize your 'good standing' in the Department. Eligibility for FWS support does not affect the likelihood of support or the size of awards.

3.5 Pattern of Financing

1. Most students are awarded tuition scholarships as long as they are in good standing until they have 72 hours of graduate credit.

[3] Each year, a letter requesting the proposal and spelling out the rules will be mailed to graduate students.

2. First-year students' financial support are University Fellowships and/or Tuition Remission. There are no Teaching Assistantships or Research Assistantships awarded to first year students.

3. From the second year on, students in good standing generally serve as departmental TAs or as RAs; some may also discharge their TA duties by teaching in University College or by serving as a Senior Teaching Assistant. These students cannot take more than three courses per semester.

   For one of these years, qualifying students can be funded by a DF or CF (see Section 3.2 for details).

Students, not funded through the department, sometimes find teaching positions in the area (e.g., at SLU, UMSL, Webster University, Meramec College, Maryville University, or SIU-Edwardsville).

3.6 Tax Treatment of Awards

The following information is given with the usual *caveat*: while we believe that it is correct, we cannot guarantee that this, in fact, is the case. Consult with a tax accountant and/or lawyer for further information.

Teaching and research stipends to advanced-degree candidates are taxable income. But graduate students enrolled in advanced-degree programs are exempt from social security tax.

Graduate students may be exempt from taxes on amounts received as scholarships for tuition and for related educational expenses (not including room and board), as described in Sections 117(a) and 117(b) of the IRS Code. However this exemption does not apply to any assistantship or scholarship that represents payment for teaching, research, or other services.

Tuition scholarships, fellowships, and assistantships are awarded independently and by separate criteria. Tuition scholarships are awarded by the Graduate School of Arts and Sciences based only on satisfactory academic achievement. Fellowship and teaching/research assistantship appointments are made by the Department with concurrence by the Dean of the Graduate School on the basis of performance in teaching and research and on academic requirements. A graduate student at Washington University may have a tuition scholarship even if he/she does not hold a teaching or research appointment.

Thus, we believe that, under the existing tax laws, *tuition scholarships* at Washington University are not taxable. Accordingly, Washington University does not report tuition scholarships to the IRS as income received by the student. If a student gets a W2-form from the University, the amount of the tuition scholarship should not be included on the form.

4 Course Decisions for First-Year Students

We expect students entering the program to have at least two (or more) semesters of calculus (equivalent to *Math 131* and *Math 132* at Washington University), a semester of matrix or applied linear algebra (equivalent to *Math 309*), and a semester of statistics. Even students with this background must take the math review course in August. This is not a remedial calculus review. Rather it is designed to introduce students to topics in mathematics – including linear algebra, basic topology, and constrained maximization – that they are unlikely to have had in even three or more semesters of college mathematics.

Course decisions for first year students are:
(a) whether to ask to be excused from *Econ 511* and/or *Econ 512* and which math courses to take instead. A few students may have had sufficient previous course work in mathematics or statistics to warrant not taking one or both quantitative methods courses. They may request a written waiver from the instructor of the corresponding course to be submitted to the Director of Graduate Studies and take a math course instead.
(b) whether to take a fourth course in the Spring semester and, if so, which one.

Even students who do not intend to do advanced work in theory or econometrics may benefit from a linear algebra course, say, *Math 429* in addition to *Econ 511*.

5 Grades

Grades of **A, B, C, F, I, N**, and **S** are given in graduate courses.

5.1 The Interpretation of Grades

A — Outstanding. The quality of the work is distinctly superior.

B — Good. Performance is satisfactory and represents the academic attainment in the course expected of candidates for a graduate degree.

C — Conditional. The quality of performance in this instance falls short to that which is regarded as satisfactory at the graduate level. Units of credit with a grade of **C** must be matched by an equivalent number of credits with a grade of **A** in order to be counted toward the requirements for any graduate degree.

F — Failure. The course will *not* count for credit toward a graduate degree.

I — Incomplete. A grade of **I** is recorded when otherwise satisfactory work in a course or seminar is not completed. The Graduate School may not allow students with more than 9 units of Incompletes or no grades reported to register for courses. Funding may also be suspended. Students with a grade of **I** must file a “Plans for an Incomplete Course” for stating the requirements to remove the **I** and a date when the work will be completed. The form is signed by both the student and the instructor. It is a good strategy for a student to complete – by the end of a particular semester – all course work for courses which have been taken in the semester preceding the current one.

N — No grade has been reported by the instructor. The course will not count towards graduate credit.

S — An **S** may replace an **I** when all work has been completed but a letter grade has not yet been assigned. The course will count as credit toward a graduate degree.

5.2 Grade Point Average Requirement

For both the M.A. and Ph.D. degree you must have a 3.0 grade point average. The calculation of the average is based on:

A+, A	–	4.0	A-	–	3.7	B+	–	3.3	B	–	3.0
B-	–	2.7	C+	–	2.3	C	–	2.0	C-	–	1.7

5.3 Grades and Prospects of Passing Prelims

A — A student performing at this level should normally be expected to pass prelims.

B+ — Indicates good performance most likely at a level needed to pass prelims.

B — Indicates that the faculty believes that there is potential for the student to pass prelims but some improvement is likely to be necessary.

B- — Indicates a marginal performance and signals problems for the prelims.

C — Indicates a performance that is below the level acceptable for either a Ph.D. or an M.A. degree. A student with a C in a theory class should not expect to pass the theory prelims.

6 Theory Prelims

1. Theory examinations are given in late June to all first-year students. This prelim consists of two five-hour exams — one on Micro and the other on Macro. Both exams must be taken. All students are expected to stay in residence between the end of spring classes and the June prelims in order to study.

2. There will be four possible grades: Distinction, Ph.D. Pass, M.A. Pass and Fail. The exams will be graded anonymously by a committee consisting of the first-year instructors. The committee will issue one grade. The theory examinations will concentrate on applications of the theory. While the main input for the committee's decision will be the results of the theory examination, the committee will include first-year course grades to supplement this information in cases a positive decision cannot be based on the results of the examinations alone. The committee usually meets by early July.

3. One retake of the theory examinations is permitted. Both Macro and Micro examinations must be retaken. The retake examinations will be scheduled to take place several days before the beginning of the Fall semester. It is expected that students who do not pass the prelims in June will spend July and August in residence studying for the August exam. **Foreign students are strongly advised not to plan to leave the country during this summer because reentry into the U.S. will require a letter from the Department assuring funding for the entire second year. Because second year funding is contingent on passing prelims, the Department's letter may not be accepted by all consular officers.**
   In exceptional cases, the faculty may come to the conclusion that retaking the exams

is counter-productive. The Director of Graduate Studies will inform the respective student of the faculty's opinion and discuss other options.

4. Students must receive Distinction or a Ph.D. Pass to continue in the Ph.D. program. Students who receive an M.A. pass may elect to stay at Washington University for the Fall semester of the second year to complete the requirement for an M.A. degree. Tuition remission usually is granted. Students who fail the prelims must leave the program.

7 Field Requirements

Students must pass **two** fields. Unless stated differently, to pass a field requires a B or better in at least two approved field courses. Requirements are outlined below for the fields the department regularly offers.

With permission of the Director of Graduate Studies, other fields in and outside Economics can be taken. Students have to get, **in writing**, the field requirements from the faculty teaching in the corresponding area and have the requirements approved by the Director of Graduate Studies, *before* these requirements are fulfilled, in particular, before enrolling in courses. Any student interested in taking Finance or another field in the Business School should contact one of the senior faculty members in the corresponding area.

We recommend that a graduate student think about fields during the first year. At the beginning of the second year, the student should send a letter of intent to the Director of Graduate Studies indicating which two fields and which courses in each field she/he wants to choose. The Director of Graduate Studies may then counsel the student about the availability of the chosen courses and appropriate alternatives if needed.

The student should realize that courses cannot be offered each semester in all fields. Course offerings depend on student interest and faculty availability. It is useful if students correctly inform the Chair about their interest in particular courses. Fields with relatively large enrollments will skip at most one semester and begin the sequence again.

For any field, students are encouraged to contact any member of the field committee early and discuss possible choices.

7.1 Requirements for the Advanced Macroeconomics Field

Field Committee: Gaetano Antinolfi, Steve Fazzari and James Morley.

Required:

Econ 586, Seminar in Macro and Monetary Economics

Econ 518B, Seminar on Applied Econometrics II.

Students interested in macro economics are strongly encouraged to take additional courses offered in the area, such as *Econ 5875*, Financial Markets, Institutions and Regulatory Change or other courses taught by visiting faculty. Students in this field must also regularly attend research seminars in macro and monetary economics presented in the department and at the Federal Reserve Bank of St. Louis.

7.2 Requirements for the Econometrics Field

Field Committee: Edward Greenberg, James Morley, Robert Parks, and Fredric Raines.

Students are strongly advised to take *Math 493* and *Math 494* instead of *Econ 512* if they decide early enough that they wish to take a field in Econometrics. In that case, they will be permitted to take *Econ 513* if they have taken *Math 493* and are taking *Math 494* concurrently.

Required:
Econ 513, Elements of Econometrics
At least **two** others from the following options:
Econ 514, Advanced Topics in Econometrics
Econ 515, Bayesian Econometrics
Econ 518A, Seminar in Applied Econometrics I (Cross Section Analysis)
Econ 518B, Seminar in Applied Econometrics II (Time Series Econometrics)
Additional courses and courses that may substitute for those mentioned above may sometimes be offered by the Business School or the Department of Mathematics. Such courses should be approved in writing prior to registration by Professor Greenberg if they are to be offered as a substitute for a course on the above list.

7.3 Requirements for the Economic History Field

Field Committee: Sukkoo Kim, Douglass North, and John Nye.

Students must take at least two graduate level economic history courses, *Econ 527*, Graduate Seminar in Western Economic History, *Econ 528*, Graduate Seminar in American Economic History, or *Econ 529*, Topics in New Institutional Economics. Students must receive an A- or better on course grades. Alternatively, student submits an essay, a paper, or writes an exam approved by the committee. Students are expected to know European and American Economic history, and participate in regular Economic History lunches with the expectation that they make at least one or two presentations before the formal proposal.

Students are strongly encouraged to find a secondary specialization in *applied* economics or econometrics.

7.4 Requirements for the Economic Theory Field

Field Committee: Gaetano Antinolfi, Marcus Berliant, Stephanie Lau, John Nachbar, Wilhelm Neuefeind, Robert Parks, and Norman Schofield.

Because of recent changes in the faculty on the field committee for this field, we are unable to come up with a fixed list of courses which can be taken to fulfill the requirements. If you want to take this field, contact Marcus Berliant, John Nachbar, or Wilhelm Neuefeind to discuss available classes.

In general, MECO 690, Game Theory (offered in the Business School) is a good course to take and seems to be offered reasonably often.

Students are strongly advised to take mathematics courses beyond *Econ 511*. At least two courses are advised. Options outside the department include:

Math 411, Advanced Calculus I
Math 412, Advanced Calculus II

Math 417, Introduction to Topology and Modern Analysis I

Math 429, Linear Algebra

Math 451, Measure Theory and Functional Analysis I (Note that *Math 417* will probably be waived as a prerequisite for this course if you ask.)

Math 452, Measure Theory and Functional Analysis II

7.5 Requirements for the Industrial Organization Field

Field Committee: Lee Benham, Charles Moul, and Bruce Petersen.

A minimum of two courses should be taken from the following three:

Econ 555, Economics of Industrial Organization I,

Econ 5552, Theory of the Firm,

Econ 5553, Topics in Empirical Economics

or another relevant course, to be approved by Professor Petersen.

Students are strongly advised to take at least one other course which is complementary to an active research area within the field. These courses would include:

MECO 690, Game Theory or MECO 691, Information Economics (both offered by the Business School)

Students interested in writing a dissertation in the area are expected to actively participate in the Industrial Organization Workshop. Students who expect to write an empirically oriented dissertation should develop appropriate econometric skills.

7.6 Requirements for the Labor Economics Field

Field Committee: Donald Nichols, Robert Pollak, and Fredric Raines.

Required:

Econ 582 Seminar on Work, Family, and Public Policy

Econ 583, Labor Economics I

7.7 Requirements for the Political Economy Field

Field Committee: Marcus Berliant, Robert Parks, and Norman Schofield.

Required:

Econ 545, Social Choice and Welfare

At least one other from the following courses:

Econ 543, Public Economics

PS 505, Seminar in Theories of Individual and Collective Behavior

PS 507, Seminar in Positive Political Theory: Game Theory and Bargaining

PS 578, Seminar in International Relations: International Political Economy

Other courses as offered from time to time in the Business School etc., at the discretion of the field organizer. A student is expected to attend the Political Economy seminar each week.

7.8 Requirements for the Public Finance Field

Field Committee: Marcus Berliant, Robert Parks, and Paul Rothstein

Required:

Econ 543, Public Economics

Econ 544, Taxation

Econ 546, Topics in Empirical Public Finance

Students must develop strength in the tools of advanced economic modeling that complement their research interests.

For empirical research, options include:

Econ 518A, Seminar in Applied Econometrics I

Econ 518B, Seminar in Applied Econometrics II

For theoretical work, options include:

Econ 545, Social Choice Theory

MECO 690, Game Theory (offered in the Business School)

Econ 506, Topics in Advanced Economic Theory (whether 506 A or B does not matter).

Those students interested in writing a dissertation in public finance should also consider taking *Pol Sci 5071*, Seminar in Political Theory: Game Theory and Bargaining Theory. The material covered in this course is increasingly useful to public finance.

Finally, students should keep in mind the need to show broad interests and strong technical training through the choices of supplementary courses and a second field. In particular, Public Finance and Political Economy are somewhat too closely tied to meet these goals. We suggest that students interested in these areas take the courses relevant to their research but choose only one as a field.

8 Paper and Presentation Requirements

8.1 Second-Year Paper

Students must write at least one paper, not to exceed 20 pages, double spaced. The paper can develop a new research idea, but at a minimum will review a part of the literature in an active research area. Students are strongly encouraged to think about new research directions that could be pursued in the area studied and to report any results in their paper. Copies of the papers will be retained in the student's file. Papers submitted as part of the requirement for a course can, with the agreement of the course instructor, be used as a second-year paper. Acceptance of the paper for the course does not imply acceptance as a second-year paper, and vice versa.

Rules and Timing of Paper:

1. A brief abstract (maximum of one page, double spaced) will be submitted to the Director of Graduate Studies no later than February 1st of the second year. Students should be in contact with a faculty member who serves as an advisor for the paper. The name of that advisor should be included in the abstract. Students may ask the Director of Graduate Studies for assistance in finding an advisor. Students should expect to receive, within two weeks, comments on the abstract from the advisor and

the Director of Graduate Studies who will assign a second reader based on the abstract. Suggestions from students will be considered.

2. By March 15, the student turns in a first version of the paper to the advisor and the second reader, who, within two weeks, will make suggestions for improvements if needed. The final draft of the revised paper and an abstract are due on May 1st of the second year.

8.2 Third-Year Paper

The student writes a third-year paper and makes a presentation, preferably in one of the regular workshops. The paper should clearly attempt to go beyond a literature review. There is an expectation of original research. The third-year paper may or may not lead to a dissertation but it should be aimed toward publication.

A recommended timetable follows:

1. Nov. 15: Together with the first version of the Abstract, students file a "statement of intention" with the Director of Graduate Studies. This statement indicates the areas of interest of the student and indicates the faculty member who is being or will be consulted for this paper. Students should expect a quick response from the Director of Graduate Studies.

2. Dec. 15: Students submit a final abstract to their primary faculty reader. The faculty reader certifies to the Director of Graduate Studies that the abstract has been received, discussed with the student, and approved. The Director of Graduate Studies follows up with the faculty reader if certification has not been made by Dec. 31. The student should be kept informed.

3. March 1: First draft of paper due to faculty reader – with a copy of the paper going to the Director of Graduate Studies. By March 15, the reader certifies to the Director of Graduate Studies that the draft is received and returns comments for revision to the student.

4. April 1 to 15: Third-year paper presentations. Students who have presented their paper at a departmental seminar or a conference have fulfilled the presentation requirement.

5. May 1: Final draft of paper due to faculty reader. Reader prepares brief report (one or two paragraphs) and sends this report to the Director of Graduate Studies by May 31 who follows up with faculty members if reports are not received.

A student who performs satisfactorily in courses and whose papers were accepted can expect to continue in the program with funding. If a student's paper is not accepted, the student can petition the Director of Graduate Studies for the right to resubmit another paper no later than September 1st of the following year. If deadlines for papers are not met, funding can be discontinued.

8.3 Oral Presentation Requirement

The Graduate School requires students entering in 2004 or later to have given a minimum of four public oral presentations of their work – by the time they schedule their proposal. Thus the proposal itself and the defense do not count. This puts more weight on the third year paper presentation, informal student seminars, formal department seminars and workshops, and conference participation. The annual Graduate Student Research Symposion also counts. Note that the students are responsible to assemble the evidence on a form available from the Graduate Secretary and to hand it in at the time they schedule their proposal.

For students who entered the program before 2004 the Department requires four presentations which can include the proposal and the required public presentation of the job-market paper. At the time the defense is scheduled, evidence of these presentations must be presented.

9 Workshop Requirement

The Economic History Group meets for a Friday luncheon, and students interested in having Economic History as a field are encouraged to join this luncheon. A Money/Macro Workshop is sponsored by the Weidenbaum Center. The Center in Political Economy sponsors seminars in Political Economy. There are seminar series in Economic Theory; in Econometrics; on Work, Families, and Public Policy; and in Finance and Strategy (both in the Business School). Some meet once a week others meet less regularly. Sessions generally involve either internal speakers (faculty or graduate students) or seminars by visitors.

First-year students will be expected to attend at least five seminars per year. All other students must attend at least ten seminars per year. Conferences attended may qualify as two seminars. At the end of each semester, the Graduate Secretary will make available to students a list of all seminars presented during the semester. The student then indicates the seminars attended and returns this list to the Graduate Secretary. If a student attended a seminar not listed, it should be added to the list by the student. This information will be included in the student's file.

10 Proposal

The transition from taking courses and passing exams to doing original research and writing a dissertation is often a difficult one. The Department's paper and workshop requirements, and the oral proposal are designed to help students successfully make this transition.

10.1 Timing

The Department requires that students present a written dissertation proposal. The student must complete and present the proposal by May 1st to be included in the job market in the following semester (see 12). For students to be eligible for a Graduate School Dissertation Fellowship in the following year, the proposal has to be presented before February 28.

The proposal will only occur during the regular academic year, see (10.4) below. If a student believes that there is a convincing reason to schedule a proposal for a summer, she/he should petition the Director of Graduate Studies. Approval of such a petition is by no means guaranteed.

10.2 The Written Proposal

The candidate prepares a ten page,[4] double spaced, typewritten proposal in consultation with one to three faculty members of his/her choosing who constitute an informal thesis committee. It should include brief but clear statements of the problem to be investigated; relate to previous work in the area and explain how the proposed research might improve upon it; indicate the data sources the candidate plans to use, the methods of analysis of the data including the treatment of anticipated difficulties, and perhaps some preliminary examples of the analysis; offer a commentary on the usefulness and significance of the possible results of the dissertation; and give criteria to be used to determine when the problem is considered solved. This ten page paper is to be a summary of work that has already been completed and NOT the first ten pages the student has ever written on the topic.

10.3 Scheduling the Oral Proposal

Once the candidate's written proposal has received the approval of the informal committee, the candidate must prepare the paper in accordance with the guidelines available from the Graduate Secretary. He/she submits the paper to the Graduate Secretary for duplication and asks to schedule an oral proposal. Copies of the proposal will be distributed to faculty and made available to interested graduate students prior to the oral exam. To allow for review of the proposal, the oral proposal will not be scheduled earlier than two weeks following the submission of the written proposal.

10.4 The Oral Proposal

A specific examining committee is not appointed for the oral proposal. In effect, the entire faculty is the examining committee, and hence the proposal will only occur during the regular academic year. At least five faculty members must be present including the three faculty members who will serve on the formal dissertation advisory committee. All graduate students are invited to the oral proposal. The candidate will first give a ten-minute summary of the proposal. Following this, faculty and students are free to question or comment as in any seminar.

When discussion has ceased or when, in the chairperson's (Director of Graduate Studies or Department Chair if present) opinion, it has proceeded long enough, the candidate and all other students present will be asked to leave. After deliberation, the faculty attending will vote on whether the candidate shall be permitted to proceed with her/his research. An affirmative vote by a majority of the faculty present will indicate that if the candidate completes the research proposed and if the execution is of acceptable quality, the dissertation should be accepted. Specifically, an affirmative vote means approval of the proposed dissertation topic and the proposed methods. The vote further indicates the committee's belief in the

[4] An appendix with details which are not necessary to follow the body of the paper may be attached.

candidate's ability to complete the dissertation. After a positive vote, a dissertation advisor and a formal *Dissertation Committee* will be appointed by the chairperson.

If it is felt that the candidate will be unable to complete the proposed dissertation research in a reasonable time, or if completed more or less as planned the research will not constitute a dissertation of acceptable quality (see 11), the faculty cannot pass the student on the oral proposal. In the latter case, the candidate must prepare another proposal and again follow the procedures described above.

On occasion, the faculty may decide that the proposal be accepted subject to revision which may entail changes in scope or methods. Suggested revisions usually are not major; serious deficiencies in the proposal would result in a negative vote. If the revisions are not acceptable to the student, the candidate elects to retake the proposal.

11 Dissertation

The dissertation, according to the *Graduate School Bulletin*, "must be based upon an original investigation which results in a contribution to knowledge."

In the following, the steps a student has to take for completing the dissertation requirements are listed in approximate chronological order.

The *Dissertation Title Scope and Procedure* form (available from the Graduate Secretary) must be filed with the Graduate School not later than December 1 of the year preceding the calendar year in which all requirements for the degree will be completed. It should be filed shortly after the student passes the oral proposal.

The candidate has to agree with the members of the Dissertation Committee about the approximate date for the defense and a date at which the candidate provides a copy of the thesis to each of the committee members allowing for enough time for them to read the thesis, and, then, state in the *Thesis Approval Form* (available from the Graduate Secretary) that he/she considers the thesis acceptable and that it can be sent to the Graduate School immediately after the defense unless a substantive difficulty is discovered and a change is requested by **another** faculty member during the defense.

Following the approval of the dissertation by the dissertation committee, the defense date is set by the Graduate Secretary in cooperation with the candidate. This date is to be set at least 21 days prior to the defense date. The defense will only occur during the regular academic year, see (10.4) for the rationale. If a student believes that there is a convincing reason to choose a defense date in the summer, she/he should petition the Director of Graduate Studies. Approval of such a petition will only be granted in exceptional cases.

At least 21 days prior to the defense date, the candidate must submit to the Graduate Secretary fourteen copies of a vita and of a thesis abstract approved and initialed by the dissertation advisor. The candidate also submits six bound copies of the dissertation.[5]

The Department designates the Chair of the *Oral Examination Committee* and selects four members of this committee; generally these are the three members of the Dissertation Committee and one additional faculty member. The Dean will select the remainder of the

[5] In case the dissertation is not yet bound, it can be made available to all members of Committee at least two weeks before the scheduled date of the defense.

Oral Examination Committee – two faculty members from other departments or divisions. The Department can submit recommendations for these outside readers.

In the rare event that – during the defense – a substantive difficulty in the thesis is discovered or a change is requested by a member of the Oral Examination Committee not on the Dissertation Committee, the Oral Examination Committee postpones any final decision until the necessary changes have been made and then reconvene to complete the defense.

After the dissertation is approved and the oral is passed, the candidate should get the following forms from the Graduate Secretary: the *Doctoral Dissertation Agreement*; the *Survey of Earned Doctorates*; and the *Academic Job Survey*; fill them in and return the originals, plus one copy of each, to the Graduate Secretary along with the following items: three unbound copies of the dissertation; the thesis abstract; two copies of the short title; three additional copies of the dissertation's title page.

12 Job Market and Placement

The department places great importance on helping its graduate students obtain professional positions. A faculty member is designated as Placement Officer to work with students in the job market. The Department sends out a summary of research and teaching interests of its students to academic and non-academic institutions. We will work hard to help you obtain the best available position for which you qualify.

To go on the job market with the support of the department, the student must have:

1. successfully proposed prior to May 1st (students who enter the job market in their fourth year can propose prior to September 15th);

2. submitted a job market paper to their dissertation advisor and the Placement Director by September 1st;

3. scheduled at least two public presentations of the job market paper prior to December 1st;

4. no more than one I (incomplete).

The organization of the first presentation is the collective responsibility of the students in the job market. Faculty will most likely not attend this presentation. The second presentation is a dress rehearsal for the job market talk, with students and faculty attending.

After approval by the dissertation advisor, the student's dossier, including the job market paper and paper presentation schedule will be submitted to the Placement Officer who decides by September 15 whether the student will be included in the job market package the department sends out.

Students complete a curriculum vita and arrange to have at least three letters of recommendation written on their behalf. These letters are mailed out to parties requesting them. Students use Job Opportunities for Economists (JOE) as a valuable source of information on positions available. The students generally attend one or two conventions at which they are interviewed by prospective employers and then may be invited to visit and give seminars.

NOTE: Students should know that the market heeds the signal sent by a **completed** dissertation. Therefore, the dissertation defense preferably should have been scheduled (but not necessarily occurred) at the time of the AEA meetings. Students should remember that the final draft of the dissertation must be approved by the dissertation committee at least three weeks prior to defense date.

13 Advice

By the beginning of the third year, the student should have developed contacts with at least one faculty member with whom the student regularly discusses development of the student's work and progress in the program in general. If a student has been unable to develop such a relationship, the student should contact the Director of Graduate Studies who will assist the student in finding such a mentor for the rest of the student's graduate study. The mentor is expected to be a member of the future dissertation committee, but this can change.

By October 1 of the third year, the student should provide a brief statement about her/his progress, fields of interest, and intended dissertation field to the Director of Graduate Studies.

Students should be aware that some external professional activity is appropriate. The meetings of local associations, Missouri Valley, Illinois Economic Association, Midwest Economic Association, are within their easy reach. Other conferences should be considered. Participation in conferences as a discussant can and conference presentations do substitute for some of the four required public presentations (see 8). The Department will usually subsidize the travel costs for students who present papers at acceptable conferences. Students must request travel funding from the office manager in advance to qualify for a subsidy. Because the budget is allocated on a first-come-first-served basis, students should request funds as soon as their papers are accepted for presentation.

It is appropriate for students to know about the process of journal submissions. See "The Young Economist's Guide to Professional Etiquette," *Journal of Economic Perspectives*, Vol. 6, No. 1, Winter 1992. The following booklet is also strongly recommended for the student's perusal: *A Guide for the Young Economist: Writing and Speaking Effectively about Economics* by William Thomson, MIT Press 2001.

Since writing is the backbone of any academic success, it is expected that students will write about 50 to 100 pages (including class papers) each semester. It is very important that students work hard to acquire the habit to write regularly.

Graduate students often face significant stress during their studies. Support from family, friends, and faculty is often very helpful. In addition, the Student Counseling Service provides counseling services for graduate students. The office is located in Karl Umrath Hall, Room 216, extension 5-5980. Students are encouraged to call or visit the office to learn more about how the Student Counseling Service can provide assistance.

14 The Graduate Student Association (GSA)

The GSA is your association. You elect the officers.

The GSA has several important responsibilities in the Department.

1. The GSA is responsible for office assignments for graduate students.

2. The GSA is a service organization to incoming graduate students. They are available to help you find an apartment, and they are a valuable source of information and advice.

3. The GSA organizes the semi-annual Department picnics (September and May). These are important opportunities for graduate students to mix with faculty at a less formal occasion.

4. It is responsible for the organization of the department's participation in intra-mural sports.

5. The GSA is a formal liaison between graduate students and the faculty.

15 Foreign Students

The graduate program in Economics attracts a substantial number of foreign students. In addition to the usual problems of adjusting to the graduate program, foreign students may face special problems of adjusting to language and customs.

15.1 Language Problems

Most foreign students enter with TOEFL scores in the 600 range. Our experience is that these students' spoken and written English, speed of reading English, and ability to take lecture notes in English are often below the level that would permit them to compete on equal terms with students whose native language is English.

In such cases, it is the responsibility of foreign students to improve their English. The English Language Program (ELP) offers intensive English instruction. Some of the courses are available over the summer, and foreign students having difficulty with English are urged to participate in the English program during the summer preceding and possibly following their first year. It may be possible that tuition for these courses will be subsidized by the Department.

The Department expects that foreign students will improve their English to the point that they can serve as Department TAs during their second year in residence and can teach competently in University College (night school) by their third year in residence. *Failure to develop proficiency in English sufficient to perform the duties of a TA will jeopardize continued financial support as well as progress toward completion of the degree.*

Currently, all students whose native language is not English must take an exam in teaching competency. This exam usually takes place soon after the student arrives on campus, in the summer before the first year of classes. The exam is jointly administered by ELP and the Economics department. Recommendations from ELP, derived from the results of these exams, have to be followed. If the recommendation requires to take additional ELP courses, the Graduate School usually pays the tuition.

One reason foreign students often fail to improve is that they "stick together" and talk mainly to others in their native language. It is important that foreign students mingle with American students and speak mainly English outside of class. Our office assignments make this easy; they intentionally mix foreign and American students. Foreign students are encouraged to join in "study groups" with American students, to attend picnics and other departmental functions, and to generally "mix" with the other students.

The Teaching Center may also be able to provide advice to a TA who encounters problems with undergraduate students or the faculty she/he is assigned to.

15.2 Cultural Differences and Gifts

There are many customs here that differ from those to which some of our foreign students are accustomed. For example, some foreign students are used to giving gifts to faculty members. This is not customary here and even considered inappropriate.

In some Asian countries, teachers and their assistants seem to receive more respect than is customary in the U.S. Students assigned to TA duties should be aware of this difference: an American undergraduate student usually does not show disrespect when he/she is not deferential to a TA. Please talk to us if there are problems for you.

16 Special Interdisciplinary Programs

Washington University encourages interdisciplinary research and teaching. For some time, the Department of Economics has supported these efforts by offering the possibility to qualify for a joint degree in Economics and Systems Science or acquire a Ph.D. in Economics concurrently with a degree in Law.

To be eligible for such an interdisciplinary program, applicants are expected to have particularly strong credentials in economics as well as in the other discipline. For instance, to be admitted to the Joint Doctoral Degree Program in Economics and Systems Science applicants need a particularly strong mathematical training. In addition, undergraduate intermediate theory courses in micro- and macro-economics (equivalent of *Econ 401-402*) are prerequisites for the program.

An applicant interested in obtaining a joint degree or dual degree should contact the Director of Admissions or if that person is unavailable, the Director of Graduate Studies before a formal application is made. An assessment of the feasibility of the applicant's plans will be made. Often a joint or dual degree is not necessary. Students may be more successful if they take classes or a field (see page 12) in another discipline. In addition, a graduate student may get a dissertation adviser from other parts of the university to combine the best of several disciplines into a student's work.

Note that, for a joint or dual degree, a successful applicant will have to be admitted into two graduate programs at Washington University.