# GRADUATE STUDY IN ECONOMICS:

# A STUDENT HANDBOOK

# 2018-19

# THE UNIVERSITY OF MARYLAND

**Compiled by:**
**Economics Graduate Student Association**
**and**
**Department of Economics**

# I. THE ECONOMICS GRADUATE STUDENT ORGANIZATION (EGSA)

This handbook is a joint effort of the Department and the Economics Graduate Students Association (EGSA). It includes Department and University rules for the graduate program and some helpful insights on the dissertation from former students.

The Economics Graduate Student Organization is a non-profit student-run organization established for the benefit of all economics graduate students. Membership is open to all economics graduate students in exchange for a nominal fee to cover the expenses of the organization over the year. Activities include weekly coffee hours, student/faculty picnics, spring party, "Field Day" and much more. Members enjoy reduced or free admission to all events.

EGSA is run by anywhere from 2-6 co-chairs (usually second-year students).

In addition to organizing the special events mentioned above, the EGSA co-chairs act as liaisons between the graduate students and the faculty, meeting regularly with the director of graduate studies to discuss issues of concern.

Obviously, each year's co-chairs have a different agenda. Over the years, their efforts have materialized in the following ways:

- the publication of this very manual
- the creation of the graduate student lounge
- arranging for the micro comprehensive exam and the macro exam to be given on two separate days with two or more days in between rather than on the same day
- successfully lobbying for changing Department rules so that, if a student fails one comprehensive theory exam and passes the other, he/she only has to retake the one he/she failed

# II. PROGRAM REQUIREMENTS

## AN OVERVIEW OF THE REQUIREMENTS FOR THE PH.D.

A well-prepared entering Ph.D. student should be able to complete the program in five or six years. During the first year, students normally take courses in macro and micro theory to prepare for the comprehensive examinations taken at the end of the first year, as well as courses in econometrics. The second year is spent taking courses in two fields of specialization chosen by the student, as well as at least one supporting course in some other field. Many second year classes include term paper or research proposal assignments, and students take a research and writing course in the spring semester of the second year and fall semester of the third year to help get started on writing papers.

Students are required to turn in a research paper in a relevant field by the start of the third year. Students work on this paper in the summer after the second year. The rest of the third year is spent finishing course work and field requirements, and making progress on the doctoral dissertation. All students, regardless of field, must write another satisfactory paper by the end of their third year. Students are expected to meet with faculty to discuss this paper starting early in the third year, if not earlier. Some fields also require a field exam in addition to the field paper; field exams are typically taken following the second year. Field requirements are listed at the back of this handbook.

Grad students participate in two research workshops. Students begin formally registering for these workshops in the 3rd year but are encouraged to attend a few in the first year, and then regularly in the second year. The field (800-level) workshops feature invited speakers. Students should register for and attend the workshop related to their major field. Funded students are generally expected to register for one 800-level workshop each semester starting in their third year, and all students (funded or not) must register for and receive a satisfactory grade in an 800-level workshop in at least two semesters prior to receiving their Ph.D. Detailed registration guidelines can be found below.

In addition, students attend a weekly lunchtime "brownbag" workshop starting in the third year, where students present work in progress to fellow students and to faculty members. The two brownbags are Econ 708 (Micro) and 709 (Macro). Funded students are expected to register for and participate in one brownbag each semester starting their third year. Students should expect to make at least one brownbag presentation per year, starting in their third year, although students making early progress on research can volunteer to present later in the second year.

Students should plan to defend their dissertation proposal by the end of spring of the fourth year. The proposal defense is made before a committee consisting of the three faculty members, one or more of whom must be designated as the committee chair. At least two of these advisers will typically be drawn from the field in which the student is writing, or from closely related fields.

A student should plan to have a substantial portion of the thesis completed by fall of the fifth year, at which time the student may enter the job market with advisors' approval. In some cases,

students may need or benefit from an extra year to be ready for the job market. Students should be aware that department funding is typically not guaranteed beyond the fifth year, although there are campus and external funding opportunities available to help students in the sixth year. The last step is that students must successfully pass an oral defense of the completed dissertation. In some cases this will occur during the spring of the fifth year, or the following summer; in other cases this will occur during the sixth year or later.

## THE REQUIREMENTS FOR THE PH.D. IN DETAIL

Students must pass written examinations in microeconomic and macroeconomic theory, satisfy the major field requirements in one field and the minor field requirements in a second, complete other required courses, and write and successfully defend a doctoral dissertation in order to receive a Ph.D. This section describes these requirements in greater detail.

### A. *Comprehensive Examinations*

Students must pass written examinations in microeconomic and macroeconomic theory at the doctoral level. Each exam may be attempted twice. If a student passes one exam but fails the other on the first attempt, then the student needs to re-take only the failed exam. If a student fails both, then the student must re-take both. Students who fail one or both exams twice typically must leave the program by the end of the second year, although in some circumstances students may petition to remain in the program (see below). Students in general are expected to attempt and pass comps during the summer following the first year of classes, unless you have been granted permission by the department to delay comps for medical or other compelling reasons.

While no courses are required, normal preparation includes Econ 601, 602, 603 and 604. The first attempt at comps generally takes place on Monday and Thursday of the third full week of June. Faculty have a maximum of four weeks to grade June comps, with grades announced as soon as they are available. In general, the second attempt takes place in August, on Monday and Friday of the last week before classes start. Comps dates are announced in February or March.

Students preparing to take comps must sign up with the Graduate Studies Coordinator. Failure to do so means that no exam packet will be prepared for the student. Copies of old comp exams are available from the Graduate Studies Coordinator, and are also available online.

Students who receive grades of A or better in both Econ 601 and Econ 602 may be allowed to bypass the macro comp, at the discretion of the macro faculty. Students who receive grades of A or better in both Econ 603 and Econ 604 may be allowed to bypass the micro comp, at the discretion of the micro faculty. Faculty will consider overall course performance in deciding who to exempt from each exam. Students who are exempt from both exams will be eligible for a small amount of summer funding if they remain on campus and follow a research-related work plan that is agreed upon in advance with a faculty member.

*Petition Procedure For Students Who Do Not Pass Comps*

Students who do not pass both comps in two attempts may petition the department to be allowed to continue in the Ph.D. program, provided that they passed one of the exams at the Ph.D. level and received a Master's Plus (MA+) on the other exam in their final (August) attempt.

Eligible students may petition by sending a letter or email to the Director of Graduate Studies. Petitions may be filed at any time between January 15 and February 28 of the student's second year. Students may petition only once.

All petitions must be accompanied by a letter or email of support from one or more faculty members in the student's intended major field, addressed to the Director of Graduate Studies. This letter must attest that the student has outstanding academic potential and that the letter writer would like to work with the student on his or her dissertation.

Petitions will be reviewed by a committee consisting of the Director of Graduate Studies and the committee chair of the comprehensive exam that the student did not pass. The committee chair may designate another faculty member to serve in his or her place. In determining whether to grant the student's petition, the committee will consider first and second year course grades, indicators of the student's research potential, and the reports of faculty members who have direct information on the student, particularly course instructors. The committee will pay special attention to course grades and reports of faculty in the student's intended field(s) who have taught the student in the second year. Petitions are unlikely to be granted for students who did not maintain an A average in such courses. Petitions will be granted only if both committee members agree that the student has demonstrated outstanding potential outside of comps.

The committee must rule on each case by April 1st, but may issue rulings earlier if sufficient information is available. All decisions of the committee are final.

Should the committee grant the student's petition, the student will be allowed to continue in the Ph.D. program, and the student will be eligible for department funding as if the student had passed both comps. The department will waive the requirement that the student pass both exams at the Ph.D. level in determining eligibility for advancement to candidacy and satisfaction of requirements for the Ph.D.

B. *Field Requirements*

Each student must satisfy the major field requirements in one field and the minor field requirements in a second. Students take three courses for their major field. Some fields specify three courses that the student must take; other fields specify one or two classes and allow students to choose other classes in consultation with faculty. Students take two courses in their minor field, which must be distinct from the three major field courses. Students must maintain at least a B+ grade point average in their major field. Some fields have stricter grade standards, and/or apply the B+ requirement to the minor field.

Additional major field requirements are set by the individual fields. Some fields require a field paper, which also satisfies the third year spring paper requirement. Other fields require students to pass a field examination. Exam format varies by field. Field exams are typically offered in late May or early June, after the second year. A field exam will be offered in January only for one of two reasons: (i) the student had not completed the requisite course work in time to take the June field exam, or (ii) the student failed the June field exam. So, for example, a student who wanted to take micro theory as a major field and who completed the courses during the second year would have to take the field exam in June and could not postpone the exam until January.

Students planning to take field exams must sign up with the Graduate Studies Coordinator in advance. Failure to do so may mean that no exam will be written for that field. Copies of old field exams are available from the Graduate Studies Coordinator.

Students have two chances overall to satisfy the field exam or paper requirement of a major field. Students failing the field requirement in the first attempt may use their final attempt in the same field, or may try another field, but **in either case students have only two chances overall**. Retaking a field exam counts as a second chance. Fields with paper requirements may consider revising and resubmitting an unsatisfactory first attempt as a second chance, or may treat a revision as if it were still a first chance. Students who do not pass a field exam or paper requirement in two tries will be asked to leave the program. A student making satisfactory progress in the program should complete all field requirements by the end of the third year.

Fields offered by the Economics Department are listed below. Detailed descriptions of the major and minor requirements for each field are shown in Section X of this handbook. Students can also major or minor in finance by taking graduate courses offered by the Business School; the field requirements for finance are listed in Section X. Students also have the option of taking a minor field in Computational Economics; requirements are listed in Section X.

## LIST OF MAJOR FIELDS CURRENTLY OFFERED

Advanced Macroeconomics
Advanced Microeconomics
Behavioral and Experimental Economics
Comparative Institutional Economics
Econometrics
Economic Development
Economic History
Environmental and Natural Resource Economics
Industrial Organization
International Finance and Macroeconomics
International Trade
Labor Economics
Political Economy
Public Economics

C. *Advancement to Candidacy for the Ph.D.:*

After passing the comprehensive exams, satisfying course requirements for your intended major and minor fields and other required supporting and econometrics courses (listed below), a student can advance to candidacy for the Ph.D. This constitutes official University approval that the student has the necessary skills to pursue the Ph.D. Funded students receive a small increase in their assistantship stipend upon advancing to candidacy. Students do not need to pass the field exam or paper in their major field prior to advancing to candidacy, although students do need to complete all field requirements prior to the end of their third year in order to remain eligible for department funding. Many students will be eligible to advance to candidacy by the end of their second year. Students must advance to candidacy within five years in order to remain in the program, or must apply for an extension with the Graduate School. In addition, students must advance to candidacy at least six months before the date on which the degree will be conferred.

In order to advance to candidacy the student must fill out the **WORKSHEET TO BE COMPLETED ON ADVANCEMENT TO CANDIDACY,** which can be obtained from the Graduate Studies Coordinator. Once this form has been approved by the Director of Graduate Studies, the department will process the **APPLICATION FOR ADMISSION TO CANDIDACY** with the Graduate School.

D. *Required coursework*

1. Econometrics

Students are expected to have adequate preparation in probability and statistics prior to the start of the first year of the graduate program. The department offers a free intensive course in probability and statistics for entering students in the summer prior to the first year; students may either test out prior to the summer course, or show mastery by taking a test after the summer course. Most students are required to take Econ 623 and 624 in the first year, and to pass both courses with a grade of B- or better. Students who do not achieve that standard in 623 or 624 are required to retake that class in their second year.

Beyond the first year, students are encouraged to take Econ 721, Econ 722, and/or a quantitative methods course (such as Econ 625, Econ 626 or Econ 630) appropriate to their course of study. Students with a strong prior training in graduate econometrics may skip part of the first year sequence in consultation with the econometrics faculty and Graduate Director. Those students will be required to take either Econ 721 or 722.

2. Workshops

Beginning no later than the third year, students should attend an 800-level workshop as well as a brownbag workshop, either Econ 708 or 709. Funded students who are finished with their coursework are expected to register for both a field and a brownbag workshop each semester. All students, regardless of

funding status, must register for and receive a satisfactory ("S") grade for at least two semesters of a field workshop. Grades for these workshops are determined by attendance and participation. See the registration guidelines below.

3. Fields

Students must take three courses in their major field and two courses in their minor field. Course offerings for each field are listed in Section VII and field requirements are listed in Section X of this handbook. Students must maintain at least a B+ grade point average for the major field. **Students cannot use the same course to fulfill two requirements**; if a course is used for a minor field requirement, for instance, it cannot be used as a third course in the major field.

4. Supporting Course

Students must take one additional supporting course at the 600 level or above, beyond the major and minor field courses and the required econometrics courses. This can be a course in economic history, quantitative methods or advanced econometrics; a course from a third field related to the student's research interests; or an additional course from a student's major or minor field. Students may also take graduate courses offered by other departments, such as finance, mathematics, agricultural and resource economics, or political science. Students wishing to use a course outside Economics to satisfy their supporting course requirement must consult with faculty in their major field and get approval from the Director of Graduate Studies. Students must earn a B- or better in their supporting course.

Students should be aware that masters-level courses offered by the Business School and the School of Public Policy (numbered 600 through 799) often carry an extra tuition charge that is not covered by the normal tuition remission provided to funded students. We do not recommend that students take such courses. There is no extra tuition charge for doctoral-level courses offered by these schools (numbered 800 and above).

5. Research Credits:

The Graduate School requires that every student seeking the doctoral degree register for a minimum of 12 research credits (Econ 899). Only students who are advanced to candidacy can register for Econ 899, and all candidates will automatically be registered for 6 credits of Econ 899 per semester. Students who are not yet advanced to candidacy can register for Econ 898, pre-candidacy research. See the registration guidelines below.

6. Overall number of classroom courses

There is no requirement for the overall number of courses taken by a student. A student who takes first year micro, macro and econometrics, three major field

courses, two minor field courses and one supporting course will have 12 courses; but students who (for instance) skip first year micro because they have prior graduate work do not have to take additional courses to "get up to 12". Students may take more than 12 courses, provided they have sufficient tuition remission or are willing to pay out of pocket. Students should not take more than three courses in a semester, and should take no more than one classroom course in a semester starting in the third year, so that you can focus on research.

E. *The Doctoral Dissertation*

1. Third year fall paper requirement

All students are required to complete and turn in a paper in a relevant field by the start of fall semester of the third year. In most cases, the paper will be written in the student's major field, with the help of one or more faculty people in that field. Students should plan to devote significant time in the summer after their second year to writing this paper. In some cases, the third year fall paper will be based on a paper or proposal written for a second year class, while in other cases a new project will be more appropriate. Students are expected to turn in a completed paper, not a proposal. Students should meet with relevant faculty by the end of the second year to discuss potential topics and to find one or more faculty members who agree to evaluate the paper. In most cases, we expect the third year fall paper to be empirical, but the faculty in each field will have discretion about what is required for this paper.

2. Third year spring paper requirement

All students, regardless of field, must write an additional paper related to their dissertation research and have it certified as acceptable by a faculty member by May 1st of their third year. Each field sets its own standards for acceptable papers; some fields may require a completed piece of original research, while other fields may allow a literature review or research proposal at a more preliminary stage. Students may co-author a third year paper with a faculty member or another student with the approval of the faculty in their field. Students are strongly encouraged to consult regularly with faculty about this paper starting no later than early in the third year. Prizes are awarded to the top third year spring papers.

3. Progress Reports

Dissertation students are asked to submit periodic progress reports to the Director of Graduate Studies beginning in their third year. Third year students are asked to report progress on satisfying their field requirements and writing the third year paper. Students in the fourth year and beyond asked to report on their dissertation progress. Students must complete these reports as requested.

4. Oral Examination on the Dissertation Proposal

Students must prepare a substantial written dissertation proposal and defend it orally before a committee of at least three faculty. This committee will normally include the dissertation committee chair or co-chairs. When the committee chair finds the written proposal acceptable, an oral examination will be held. The written proposal must be submitted to committee members at least two weeks ahead of the scheduled proposal defense. At the defense, the committee may come to one of the following decisions: (i) the dissertation proposal is satisfactory; (ii) the proposal needs modification, with or without another oral examination; or (iii) the proposal is not satisfactory. In some cases, the committee may recommend that the student pursue another line of research and that a new committee be formed. The decision by the committee to approve the proposal does not constitute an obligation to accept the resulting thesis.

A well-prepared student making good progress should defend a dissertation proposal by the end of the fourth year. **Fourth year students who do not meet this deadline may lose their funding for the fifth year.** Students should form their committee, submit a draft proposal to their advisor(s), and discuss scheduling well ahead of the end of the spring semester of the fourth year. Extensions to the deadline can be granted with the approval of the Director of Graduate Studies, if the main advisor certifies to the Director of Graduate Studies that the extension is needed because of scheduling conflicts or other factors beyond the student's control, not lack of progress.

5. Graduate Outcomes Assessment

The Department each year conducts four assessments of graduate student progress, with results compiled by the department and forwarded to the Graduate School. These assessments give students formal feedback at key parts of the dissertation process; they do not create additional requirements for students. The first assessment covers the student's Third Year Paper; the second covers the student's dissertation proposal; the third covers a brownbag seminar presentation prior to the student's entering the job market; and the final assessment covers the student's job market packet.

Each assessment involves a form, filled out by the student's advisor(s) or the Graduate Director. For example, students should submit a Third Year Paper Assessment form to their advisors when they turn in the final draft. The advisor(s) fill out the form and return copies to the student and to the Graduate Director. Similarly, students submit assessment forms to their advisor at the time of their dissertation proposal defense and prior to their brownbag seminar presentation in their job market year. Copies of these forms are available on the department website and from the Graduate Studies Coordinator.

6. The Dissertation

The student must write a doctoral dissertation and successfully defend it in an oral examination. The oral examination must be passed within four years of the student's advancement to candidacy. In most cases, the student's advisors will ask for additional revisions following the oral examination before giving their final approval for the thesis. These revisions will usually take 2-4 weeks to complete, but more extensive revisions may be called for in some cases.

Dissertations must be submitted to the Graduate School in electronic format after final approval by the student's committee. For further details, see the University's Electronic Thesis and Dissertation (ETD) website (dissertations.umi.com/umd) or download the Thesis and Dissertation Publication Form and information sheet available at the Graduate School website (www.gradschool.umd.edu).

Because of changes in University requirements, students should not use existing library copies of theses as examples of proper format.

A graduate student may, upon the recommendation of the dissertation chair, and with the endorsement of the Graduate Director, include his or her own published works as part of the final dissertation. Appropriate citations within the dissertation including where the work was previously published are required. All such materials must be produced in standard dissertation format.

A graduate student may include work coauthored with faculty or colleagues in the dissertation. In such an event, a letter must be attached to the committee form submitted to the Dean of the Graduate School certifying that that the student has made a substantial contribution to that work, and that the inclusion of such work has the approval of the committee chair and the Director of Graduate Studies or department Chair. The format of such inclusions must conform to the standard dissertation format. A forward to the dissertation, as approved by the dissertation committee, must state that the student made substantial contributions to the relevant aspects of the jointly authored work included in the dissertation.

7. Dissertation Committee

The oral examination committee is comprised of at least five faculty members, at least three of whom must be regular members of the Graduate Faculty of the University of Maryland at College Park. Regular faculty members are tenure-track faculty (Assistant, Associate or Full Professors). Each dissertation committee will have a chair, who must be a regular member of the Graduate Faculty. Each committee must include a representative of the Dean of the Graduate School. The Dean's Representative must be a regular tenured member (Associate or Full Professor) of the Graduate Faculty and must come from outside the Economics department. If the student's dissertation committee is co-chaired, with one chair from a different department (e.g. Finance), then the Dean's

Representative must come from a third department. Your committee chair can assist you in finding an appropriate Dean's Representative.

Individuals from outside the university may serve on the dissertation committee provided their credentials warrant this service. Such individuals must be approved by the Department and by the Graduate School as Special Members of the Graduate Faculty, after being nominated by the student with a supporting letter from the Director of Graduate Studies. Students wishing to have individuals outside the university serve on their committee must notify the Director of Graduate Studies well in advance of their planned defense, to allow time for this approval process. Professors who terminate employment at UMCP remain members of the Graduate Faculty and may chair or serve on dissertation committees for up to twelve months following their termination without going through the Special Member process. Retired professors may also serve on the committee, provided they are members of the Graduate Faculty.

The student must file a **NOMINATION OF THESIS OR DISSERTATION COMMITTEE** form signed by the Director of Graduate Studies with the Graduate School at least six weeks prior to the date on which the oral examination is scheduled, and before the established deadline dates. An oral examination cannot be held until the Graduate School approves the recommended committee.

Oral defenses must be attended by all members of the officially established doctoral examining committee as approved by the Dean of the Graduate School. Should a last-minute change in the constitution of the committee be required, the change must be sanctioned by the Dean of the Graduate School in consultation with the Graduate Director and the student's dissertation chair**. In general, all members of the committee must be physically present for the defense.** If extenuating circumstances warrant, one member of the committee (not the chair or Dean's Representative) can participate from a remote location through videoconferencing; students wishing to use this option must notify the Graduate Studies Coordinator before the defense.

Notice of doctoral defenses must be published in the student's home department at least five days before the scheduled event. The members of the examining committee should receive the dissertation at least two weeks before the scheduled defense. All doctoral defenses are open to UMCP Graduate Faculty and any other interested parties deemed appropriate by the chair of the dissertation committee, in consultation with the Graduate Director.

Oral defenses of dissertations must be held in University facilities that are readily accessible to all members of the committee and others attending the defense.

Two or more no votes constitute a failure of the candidate to meet the dissertation requirement. In cases of failure, it is required that the examining committee specify in detail and in writing to the department graduate director, the Dean of

the Graduate School and the student the exact nature of the deficiencies in the dissertation and/or the oral performance that led to failure. A second defense is permitted, which if failed results in termination of the student's admitted status.

F. *Registration Guidelines*

We expect all students on the university payroll--fellows, RAs or TAs--to use all available credits of tuition remission each semester. Full-time graduate assistants typically have 10 credits available, while first year fellows may have 10 or 12 credits.

1. First and Second Year Students

You will typically register for 3 courses (9 credits) per semester. You should use your remaining credits on Econ 898 (pre-candidacy research).

2. Students Who Have Advanced to Candidacy

You will automatically be registered for 6 credits of Econ 899 (post-candidacy research). In most cases, you should use your remaining 4 credits by registering for 2 credits each of a brownbag workshop (Econ 708 or Econ 709) and an 800-level field workshop. Students who are funded as research assistants on external grants may be allowed to register for fewer credits. If you take a classroom course, you will not register for workshops that term, but you should still attend and participate in workshops.

3. Third Years and Higher Who Have Not Advanced to Candidacy

If you are taking three courses, use your remaining credit on Econ 898. If you are taking two courses use your remaining 4 credits by registering for a brownbag workshop (708 or 709) and an 800-level workshop. If taking 1 course (3 credits), register for 3 credits of 898, 2 credits of 708 or 709, and 2 credits of an 800-level workshop. If taking no courses, register for 6 credits of 898, 2 credits of 708 or 709, and 2 credits of an 800-level workshop. Students funded as research assistants may be allowed to register for fewer credits.

4. With Whom Should I Register For 898 or 899?

The department will allocate your 898 or 899 registration in your first two and a half years. Starting in the spring semester of your third year, you should register for 898 or 899 with your primary thesis advisor—the chair of your dissertation committee, if applicable, or the faculty person that you talk to the most. If you have two advisors who are equally important to you, then register with one in the fall and the other in the spring.

*G. Department Policy on Disabilities and Illnesses*

The department will make academic accommodations for students with physical, mental or other disabilities, including chronic medical conditions. Please contact the Accessibility and Disability Service (ADS) on campus if you have a disability-related condition that requires accommodations in testing, the classroom environment or program timelines. You must contact ADS in advance of test dates in order to receive accommodations. For more information, visit the ADS webpage: www.counseling.umd.edu/ads/

Students are allowed to postpone and make up exams, including comprehensive exams, or to get extensions on assignment deadlines if they have a physical or mental illness or other medical condition that would prevent them from performing at a normal level. Please contact your instructor ***promptly (before the exam or deadline)*** if you need to ask for a makeup exam or extension. In the case of comps, please contact both the Director of Graduate Studies and the Graduate Studies Coordinator. Students asking for a makeup or extension must provide documentation of their need for a medical accommodation, such as a note from a doctor or mental health professional. Students do not need to provide specific details of their diagnosis, only documentation about the time frame of the condition and treatment, and the impact of the condition and treatment on the student's ability to perform at a normal level.

We will make every effort to be fair and accommodating to students who let us know about illnesses or disabilities ***in advance. Do not wait until after the test to bring up medical or disability issues.***

*H. Academic Integrity*

Students are expected to follow the highest standards of academic integrity. Cheating on exams, helping another student cheat, plagiarism and other cases of academic misconduct will be referred to the campus' Office of Student Conduct for disciplinary action. The normal penalty for students found responsible for academic misconduct is expulsion from the program. Even if a less severe penalty is imposed by the Office of Student Conduct, students who commit academic misconduct will in general lose department funding.

## GRADUATE SCHOOL RULES AND REQUIREMENTS

In addition to department rules and requirements, students must comply with rules set out by the Graduate School. The Graduate Catalog, available on the Graduate School's website (www.gradschool.umd.edu/catalog), lists all policies and rules governing graduate students at the University of Maryland. Some of the most important are listed below and in Section VI.

1. Registration Requirements

Students must register in the semester in which the degree, M.A. or Ph.D., is completed. For an August degree, one must register in one of the two Summer Sessions.

All Ph.D. students, including unfunded students, must maintain continuous registration of at least one credit per semester. Students who have not yet advanced to candidacy can apply to the Graduate School for a waiver from the continuous registration requirement only if they will be off campus (outside of the Washington DC metro area) and will not use any university facilities, including faculty time, for the entire semester. Students who have advanced to candidacy must maintain registration in all semesters, but can apply for a waiver from some fees (but not tuition) provided they will be off campus (outside of the DC area) and not use any university facilities for the entire semester. Applications for such waivers must be approved by the Director of Graduate Studies. All students who are advanced to candidacy will automatically be enrolled in 6 credits of Econ 899, and will be charged a flat candidacy tuition equivalent to 1.5 credits worth of tuition. All students (regardless of candidacy status) may request a Leave of Absence from the university for one or two semesters for Childbearing, Adoption, Illness or Dependent Care. Registration requirements are waived for students on an approved Leave of Absence.

2. Grade Requirements

A minimum 3.0 grade point average (GPA) is required by the Graduate School for graduation. GPA is calculated assigning 4.0 points for grades of A+ or A; 3.7 points for A-; 3.3 points for B+; 3.0 points for B, 2.7 points for B-; 2.3 points for C+, and so on, down to 0.7 points for D- and zero points for F.

All students are required to maintain a cumulative 3.0 or better GPA, regardless of their status in the program. A student whose cumulative GPA falls below a 3.0 after the student has completed 12 credits will be placed on academic probation by the Graduate School, who will notify the student and the Director of Graduate Studies. Students on probation need permission from the Director of Graduate Studies to register for courses. Students on probation typically have one semester to raise their GPA to 3.0 or above or be dismissed from the Graduate School.

3. Time Limits and Extensions

Students must advance to candidacy within five years of entering the program, and must complete the entire program for the degree, including the dissertation and defense, during a four-year period after admission to candidacy. Overall, students must complete their Ph.D. within nine years of entering the program. Time taken for an approved Leave of Absence for Childbearing, Adoption, Illness or Dependent Care is not counted against these time limits. However, time spent off campus for other reasons is counted against these time limits, even if the student received a waiver of continuous registration or fees. Students wishing to take a Leave of Absence for Childbearing, Adoption, Illness or Dependent Care must secure approval from the Director of Graduate Studies and must apply to the Graduate School prior to the start of the semester.

Students who fail to meet requirements for advancement to candidacy or the Ph.D. within these time limits may apply for an extension of up to one year from the Graduate School. This application must be accompanied by a letter of support from the Director of

Graduate Studies and must include a timetable listing specific goals to be accomplished. In some cases, a second year's extension can be granted. Extensions for a third year are rare, and no extensions will be granted beyond a third year.

Students who fail to advance to candidacy or complete their Ph.D. after these extensions will be terminated from the program. Students who wish to finish their degree after termination must apply for re-admission to the Graduate School. This application must be accompanied by a letter of support from the Director of Graduate Studies that lists a timetable for the student to accomplish specific goals. The Director of Graduate Studies will decide whether or not to support a student's application for re-admission on a case-by-case basis, considering the student's past performance, potential and the opinions of the student's advisors. Readmitted students who have not yet advanced to candidacy must advance within one year of readmission, and then must complete the Ph.D. within four years of advancing to candidacy. No extensions will be granted for readmitted students.

4. Parental Accomodation Policy

In addition to the option of taking leave of absence for childbearing, adoption, illness or dependent care (see above), the University has adopted a Graduate Student Parental Accommodation policy that provides up to 6 weeks during which new parents may postpone completion of academic requirements. This policy differs from a Leave of Absence in that students maintain their status as full-time, registered students, continue to pay tuition and fees and continue to have access to university facilities during the accommodation period. To be eligible, new parents (of either gender) must have been enrolled in their graduate program at the University for at least one full semester, must be currently enrolled full-time, and must be in good standing and making satisfactory progress toward the degree. The 6 week period must begin immediately upon birth or adoption and must be taken as a single block. Academic requirements (deadlines, exams, assignments) in general will be postponed during the 6 week period. In general the Economics Department will allow a student to retain funding during this period and will find a substitute to ensure that GA work is completed. For more information on this Policy, please consult the Graduate Handbook.

## III. DEPARTMENT SUPPORT FOR GRADUATE STUDENTS

### FUNDING AND SATISFACTORY PROGRESS

Students entering the program with financial support are guaranteed support through their fifth year, contingent upon satisfactory progress towards the Ph.D., as defined below. While in some cases students may benefit from using a sixth year to complete the Ph.D., students in general cannot count on department funding after the fifth year.

Students entering the program without support are guaranteed support in their fourth and fifth years, contingent upon satisfactory progress towards the Ph.D., as defined below. Students may be offered support sooner if they compile an above average record in their coursework and

comprehensive exams, and if they demonstrate excellent potential for dissertation research, although availability of support is contingent on departmental needs and resources.

For funding purposes, students will be considered as making satisfactory progress provided that they achieve the following benchmarks. The Director of Graduate Studies interprets and applies these rules in individual cases. Appeals of these interpretations or for exceptions should be made first to the Graduate Studies Committee, then the Chair, then the Dean of the Graduate School.

(1) Students must pass both the micro and macro comps, or must successfully petition to remain in the Ph.D. program despite not passing comps. In general students must satisfy this requirement in the summer following the first year.

(2) Students must satisfy all major and minor field requirements, as well as the third year fall and spring paper requirements, by the end of their third year.

(3) Students must satisfy all course requirements, including supporting courses, and must advance to candidacy, by the end of their fourth year.

(4) Students must defend their dissertation proposal by the end of the spring semester of their fourth year.

(5) Students must prepare at least one application for external funding by the end of their fourth year, as certified by one or more faculty advisors. External funding sources can include the NSF Graduate Research Fellowship (for domestic students) or similar fellowships from outside the US; summer or academic-year dissertation internships where you are paid to work on your own research, such as the Economic Club of Washington Fellowship or dissertation internships with the Federal Reserve; research grants to fund specific expenses, such as the NSF Doctoral Dissertation Improvement Grants; or working at an external organization with which the department has a shared funding arrangement, such as the Census Bureau. Applying for department or university support does not qualify as external funding. The Director of Graduate Studies will resolve any ambiguities about whether something qualifies as external funding.

Students do not need to have actually received external funding to satisfy this requirement. Students who have received and/or applied for external funding during the first three years of the program will be deemed to have satisfied this requirement, and are not required to prepare another application in their fourth year. Students who wish to satisfy this requirement in their fourth year should prepare an application for a specific external funding source and submit this application for review to one or more faculty advisors (typically the chair and/or other members of the student's dissertation committee) before the end of your fourth year. The faculty advisor(s) will determine whether or not you should actually submit the application.

(6) Students must perform their assistantship duties in a satisfactory manner, and must maintain standards of academic integrity. Students found guilty of academic misconduct or who do not perform their assistantship duties adequately may lose their funding even if they otherwise satisfy the requirements for satisfactory progress. Decisions regarding such losses of funding are made by the graduate director.

## GUIDELINES FOR ASSISTANTSHIPS

1. Graduate Teaching Assistants:

The specific duties of a graduate teaching assistant in economics vary from one course to another, but in most cases, assignments fall into one of three categories:

a) Grader: assists a faculty member in the grading and administrative duties necessary for a course;
b) Section leader: leads discussion sections of a course taught by a faculty member; this assignment also typically comes with grading, advising and administrative duties.
c) Instructor: independently teaches a small section (45 students maximum) of an undergraduate course

These assignments carry a maximum average workload of 20 hours per week; a typical workload will average 15-20 hours per week. Workloads may fluctuate over the semester and may be higher than 20 hours during key periods such as when exams are being graded.

Teaching assistants usually start out as graders or as section leaders for large lecture classes at the beginning or intermediate undergraduate level. As students move through the program, they are often asked to teach more advanced undergraduate classes. Language skills and performance as a TA are all factors used in determining TA assignments.

The department chooses the overall number and composition of undergraduate course offerings based on a variety of factors that are independent of the skill and interest mix of our TAs. While we prefer to assign TAs to courses that are related to their research interests, this is not always possible; we have a large demand for TAs for introductory microeconomics, for instance, and often we must assign students with macro interests to be TAs for this class.

If you are a teaching assistant working under the supervision of a course instructor, your job is to attend lectures (unless exempted by your supervisor) and to do whatever discussion section, grading, administrative or office hour duties are assigned by your instructor. If you need to miss a lecture or otherwise swap duties with another TA, you must notify the instructor, who has final say over any work swapping.

If you conduct a discussion section and need to miss a session unexpectedly due to an emergency, you must contact someone in the main office (301-405-3266) as soon as possible so that they can post a notice on the door of your class. If you know in advance that you cannot make a

section, you must notify your instructor and arrange for a substitute; in most cases another TA assigned to the same class will be the best substitute.

Section leaders and graders may to be asked by their faculty supervisors to meet on campus before classes begin, and must plan to remain on campus after the end of classes until course grades are submitted and all other work responsibilities are done. If you are assigned as TA, you MUST consult with the course instructor before making travel plans for the end of the semester. Also, please leave contact information with the instructor before leaving campus in case he or she needs to ask you a question about grades or other course matters.

If you are teaching your own course, you are responsible for all aspects of the course, including lectures, meeting with students, giving assignments and exams, and assigning grades. If you have an emergency and need to miss a lecture unexpectedly, you must contact the main office immediately as described above. If you know in advance that you must miss a class, you must arrange for a substitute, and you must notify the Director of Graduate Studies, the Director of Undergraduate Studies and the main office IN ADVANCE so that we can approve your arrangement and answer students' questions. Swapping lectures with another student who is currently or has taught the course in the past is recommended in this case.

New instructors are encouraged to look at the syllabi of previous offerings as a starting point for designing their own class. Students assigned as instructors will typically be allowed to teach their class more than once and will usually not be asked to teach a section of a different course once they have taught a particular course.

TAs are evaluated by their supervisors at the end of each semester. Instructors are evaluated using course evaluation forms filled out by students and tallied by the college. TAs and instructors who receive poor evaluations may be asked to meet with the Director of Graduate Studies and/or Undergraduate Studies, so that we can discuss ways of improving your performance. We may come to your class to observe your teaching. Students who want more help in improving their teaching are encouraged to use the resources of the campus' Teaching and Learning Transformation Center (TLTC): https://tltc.umd.edu

2. Graduate Research Assistants.

Graduate RAs are usually chosen by faculty members who have funding for an RA. Faculty members are often looking for a particular set of skills, such as experience with particular software or with applied econometrics. Not all faculty have RA funding. The duties of graduate research assistants vary according to their project and the source of the funding. Some graduate research assistants are assigned to work on research which is applicable to their own thesis work, but almost all RAs should expect to do at least some work that is not applicable to their dissertations.

The maximum workload of an RA is 20 hours per week; a typical RA workload will average 15-20 hours per week.

3. An important reminder:

Failure to do your job as a TA or RA shows a lack of professionalism and reflects badly on our program. Consistent failure to do a satisfactory job as a TA or instructor is punishable by loss of an assistantship, although instructors who show effort but have problems teaching will merely be reassigned to a lower-profile job.

4. Further information

Further information on university policies on graduate assistantships can be found in the Graduate Catalog section of the Graduate School Website: http://apps.gradschool.umd.edu/Catalog/policy.php?assistantship-policies=

## TRAVEL AND RESEARCH EXPENSE SUPPORT FOR GRADUATE STUDENTS

The department is happy to support travel expenses for students presenting their research at outside conferences, as well as other research-related expenses. We recommend that all students make one or more conference presentation outside the department prior to going on the job market, to gain experience. Support is available under the following guidelines:

(1) The department will support students' travel expenses for presenting their research at conferences, as well as other research-related expenses (such as data acquisition, journal submission fees, attending summer workshops, or costs of running an experiment), subject to a lifetime limit of $1500 per student.

(2) Students are strongly encouraged to expand their budget constraint by applying for the Goldhaber Travel grant from the Graduate School. The Goldhaber award covers up to half of the expenses of conference travel, up to a limit depending on the location of the conference, provided the department provides matching support. The department will provide matching support

subject to the $1500 lifetime limit discussed above. In other words, the Department's matching support will count against the $1500 limit, but the Graduate School's support will not. The Goldhaber Award can be used once prior to advancing to candidacy and once afterwards, per Grad School rules.

In addition, students presenting their work at conferences outside the US can defray conference registration fees up to $500 using the Graduate School's International Conference Student Support Award.

(3) The department will also support some of the travel of expenses of students going to the ASSA meetings in January in the year they are going on the job market. These expenses will not count against the $1500 limit.

(4) The Director of Graduate Studies and Department Chairman will consider requests for extensions to the $1500 limit on a case by case basis. The student's request must be accompanied by an email or letter from the student's main advisor that explains why the extra funding would be worthwhile and why alternative funding is not available. The DGS and Chairman will evaluate the merit of the proposed extension, the size of the request, and the student's potential and performance. Requests should be made by email to the Director of Graduate Studies.

(5) Some departmental research fellowships come with additional travel and research expense support; see below.

(7) Students who wish travel support should fill out a travel request form (available on the department webpage or by emailing the Graduate Director) IN ADVANCE and submit it to the DGS, who will notify the student and relevant staff upon approval. Students applying for a Goldhaber grant should also download and fill out the Goldhaber form on the Grad School website, and leave the form in the mailbox of the DGS, who will fill out the lower right hand portion and return to the student. In some cases, the Department can make reservations and front the cost on the student's behalf; in other cases, students will be asked to save their travel receipts and submit them to relevant office staff for reimbursement when travel is complete. You must contact the DGS in advance of travel, and should contact the DGS before making reservations.

## AWARDS AND DISSERTATION FELLOWSHIPS FOR GRADUATE STUDENTS

1. The Ann G. Wylie Dissertation Fellowship and Graduate Dean's Dissertation Fellowship

Each year the department nominates two advanced students for the campus-wide Ann G. Wylie Dissertation Fellowship. One of these students is also nominated for the Graduate Dean's Dissertation Fellowship. Winners of the Wylie fellowship receive a $10,000 stipend, tuition remission and health coverage for one semester with no duties. Winners of the Graduate Dean's fellowship receive a $25,000 stipend, tuition remission and health coverage for two semesters with no duties. Winners are expected to complete the dissertation in their Fellowship year.

2. The Betancourt Fellowship

The Roger and Alicia Betancourt Fellowship in Applied Economics provides one semester of fellowship support without assistantship duties to a dissertation writer in the final year of the program. Students are nominated by their advisor in the preceding Spring. Their materials are evaluated by a committee appointed by the Chair. Winners are announced by June 1 and may take the fellowship either in the subsequent Fall or Spring. Nominees must be advanced to candidacy and must successfully defend their dissertation proposal prior to or shortly after their nomination. Winners will also receive a $500 supplement for professional travel. Wylie Fellowship nominees are not eligible.

3. The Ulmer Fellowship

The Melville J. Ulmer Graduate Fellowship provides $2000 to a student in the third year of the Ph.D. program. The Ulmer Fellowship is awarded to the student writing the best paper or research proposal in the second year. Students are nominated by faculty in the summer, based on papers submitted by June 1; nominated papers will typically originate as term papers for a second year class.

4. The Gruchy Fellowship

The Allan G. Gruchy Graduate Fellowship provides research funds for students working in Comparative Institutional Economics, Economic Development, Economic History and History of Thought. The Fellowship can award $4000 or more each year. Students should submit research proposals including a detailed breakdown of proposed funding to faculty in these fields and the Director of Graduate Studies no later than April 1 in any given academic year. Proposals will be evaluated on a rolling basis. Funds can be used for travel, data collection or purchase, running an experiment or other research expenses.

5. Other Campus and Department Dissertation Fellowships

The Department awards a one-semester dissertation fellowship each year as the first prize for the Best Third Year Paper. Recipients get a one-semester department assistantship with no duties, typically taken during the fourth year, to allow them to focus on their dissertation research.

The department also nominates two students in their second or third years for the campus-wide Graduate School Summer Research Award competition, which provides $5000 for students to focus on their research over the summer.

The College of Behavioral and Social Sciences sponsors an annual grant competition known as the Dean's Research Initiative (DRI). Part of the DRI funds are reserved to support graduate student research and travel expenses, with separate competitions for students who have not yet advanced to candidacy and students who have advanced to candidacy. These funds are awarded competitively based on the quality of students' proposals. Typically the proposals are due in the middle of the Spring semester and results are announced later in the semester. All student proposals require approval of the Department Chair; to get this approval, proposals should be submitted to the Graduate Director for review well in advance of the deadline.

6. External Fellowships and Grants

In recent years our students have won a variety of external dissertation fellowships, providing funding with no duties during the summer or during a semester of the school year. Examples include the National Science Foundation Doctoral Dissertation Improvement Grant and Graduate Research Fellowship, the Economic Club of Washington Fellowship, the Kaufmann Dissertation Fellowship for the study of entrepreneurship; the Dissertation Fellowship of the Center for Retirement Research at Boston College, the National Science Foundation's East Asia and Pacific Summer Institute Fellowship, the Agency for Health Care Research and Quality (AHRQ) Dissertation Grant; dissertation internships offered by the Board of Governors of the Federal Reserve System and by the Federal Reserve Banks of Kansas City, New York and Atlanta; and the Inter-American Development Bank Summer Research Grant.

Other outside funding sources that students should consider applying for include the Russell Sage Foundation's Small Grant Program in Behavioral Economics; the SSRC International Dissertation Research Fellowship; the American Association of University Women American Fellowship; the SBE Doctoral Dissertation Research Improvement Grants (SBE DDRIG); the Woodrow Wilson International Center Fellowship; and the Horowitz Foundation for Social Policy Grants.

In some cases these sources provide a substitute for department funding for a semester or academic year, or summer funding. In other cases, these sources provide funds that can be used to support research expenses such as field work or data purchase.

All students are required to prepare at least one application for external funding by the end of the fourth year, as discussed above.

## SUPPORT FOR STUDENTS ENTERING THE JOB MARKET

The department's Placement Directors hold a meeting at the end of Spring Semester for students contemplating going on the job market, and another meeting at the start of the fall semester. The Placement Directors help students prepare their CVs and other job market materials for inclusion in the placement packet that the department posts online and sends to other departments, although students and their advisors are responsible for preparing the student's job market papers and recommendation letters, which are the most important elements of the job market packet.

The early fall presentation slots in the brownbag workshops (Econ 708 and 709) are typically reserved for students going on the job market. Some students will have the opportunity to present their work in an 800-level (field) workshop later in the fall semester, to provide additional presentational experience; these opportunities are provided at the discretion of the faculty organizing each workshop.

The Placement Directors organize practice interviews for students going on the job market. These practice interviews take place in December and are critiqued and video-recorded to allow the student to observe and improve his or her interview skills.

The department provides travel support to help students going on the job market attend the annual January meetings at which most job market interviews take place.

## IV. THE DISSERTATION PROCESS: ADVICE FROM FORMER STUDENTS

### *A. Finding a Topic*

General areas for dissertation topics should come from the field courses. A good field course will provide introductions to many specializations within the field. This is a good starting point.

You should begin by reading broadly in your field. Good dissertations often involve insight about applying techniques or ideas from one field to another where these ideas have not previously been used. However, you can read too much. This will put you in danger of doing an unimaginative minor twist on some previous work which will not be interesting to a prospective employer.

**Remember: This step is the hardest part of the dissertation!!** And it should be: You are looking for something that is doable, interesting and new. The intersection of these three sets is not large!! Attending seminars and workshops is a good, low cost way of beginning your search. In addition to introducing you to topical subjects in your field, the workshop provides excellent examples of how to give (or how not to give) a presentation.

Choosing a mundane topic will make it likely that you will get done. However, it will cost you in the job market. Boring topics just do not sell well. Heavy weight is put on imaginative dissertations. Also, remember that the first paper on a subject is not held to the same standards as the nth paper. The first paper will be valued for giving a new insight, even if all the quirks are not quite figured out. The fifteenth paper on a subject must be nearly flawless to get attention.

**Getting started is HARD!!** But this is not a sign for your future. It's always hardest to get the first idea. In the future you will have a specialty with which you are familiar and ideas will be easier to come by.

There are three typical models for a dissertation:

1. Work closely with a professor as part of a large research project. Cut out a section of this for your own.

Advantages: Advisor is definitely interested in your paper and will provide lots of guidance. The odds of finishing the dissertation are high.

Disadvantages: The dissertation provides a signal to potential employers of interesting research in the future. It will be generally known that you had a lot of guidance on your dissertation, decreasing the value of your dissertation as a signal.

2. Going It Alone.

Advantages: Dissertation is a good signal of your interest in research and your ability to pull through.

Disadvantages: Advisor may not be interested and may not provide much guidance. This method is much more difficult.

3. The Iterative Technique.

Approach advisor with a broad topic within your field. The advisor suggests further reading or a change in path. After a series of meetings, with the advisor suggesting paths to follow, the topic is narrowed down to a workable topic.

This is often the best compromise in that the advisor is interested and provides some guidance, but the student is able to demonstrate initiative and imagination in the process.

*B. Choosing An Advisor*

The choice of advisor should be clear once you've chosen a broad subject area. There is, of course, some simultaneity here: your choice of topic area will be influenced by what faculty members are working on.

The word to remember when choosing a committee is COMPLEMENTS. You want people who bring different backgrounds as represented by different skills or areas of specialization on your committee. For instance, if you advisor is mainly a theoretician, an empirical economist may be a good choice. Similarly, if your dissertation is crossing field "boundaries," a member from each field would be recommended.

Having junior faculty on the committee is fine. The junior faculty are generally closer to the dissertation process, having just completed their own. However, the chair of the committee in most cases should be tenured. Meeting and working regularly with more than one faculty person is recommended. That is, working exclusively with your advisor is sometimes not a wise practice, nor is working with too many. You should keep all members of your committee apprised of your progress. This facilitates feedback and getting letters of recommendation.

*C. The Proposal*

There is good deal of variance in what is expected in your proposal. This will depend on your advisor and the members of your committee. In general, the proposal should provide a clear road map of where the dissertation is going, and clear signs that you can get there.

The proposal should include a BRIEF literature review describing where your idea fits into the literature, with an emphasis on where you are going. The proposal should detail the problems you are investigating, the economic models you will use, and should provide descriptive statistics of the data (which you should have in hand!!).

Dissertations typically have two or more substantive chapters. At the proposal stage you should have made substantial progress on at least one chapter.

*D. The Research Job Market (including academia and organizations such as the Fed and IMF):*

To be in good shape to go on the job market during your fifth year, you should have a completed piece of your dissertation by October of your fifth year. This should be a chapter that can stand alone, or better yet, a submitted journal article. This work should be ready to send out to prospective employers.

In addition, you need to be in a position such that you will be finished by the following summer and are able to convince others of this. In other words, you should have a substantial portion of the second chapter completed and a good idea where the third one is going.

In general, once you say "I **plan** to look at X," your interview is over except for the formalities. In these times of tight job markets, universities do not want to be bothered with people who won't be finished.

Don't plan to accomplish much between October and February of the year you're on the market. This time will be spent tidying up your paper, writing letters of application, and dealing with enormous levels of stress.

The decision of when to go on the job market will hinge primarily on how much of your dissertation you have finished.

Having a published or forthcoming paper, or a paper that has gotten a "revise and resubmit" from a journal, will set you apart when you enter the job market. If you have a polished chapter completed early in your fourth year, submit it to a journal, after consulting with your advisors. Even having a submitted paper is a great signal about where you are headed with your career and shows that you are already a contributing member of the economic community.

A journal article is a different animal than a dissertation. The dissertation chapter has no constraints. In the chapter, you explain everything as fully as you can. You explore many caveats. The goal of the dissertation is to convince the reader that you've been thorough. Dissertations are often 150-200 pages long.

A journal article is much more focused, usually around 25-35 double spaced pages. The journal article shows another set of tricks than the dissertation and the decisions about what to include are very different.

*E. The Private Sector Market*

If you are more interested in the private sector job market (such as consulting jobs), you will want to choose a dissertation topic that allows you to demonstrate quantitative skills, since these are typically in the most demand These may be empirical skills (such as the ability to apply sophisticated econometric tools to large data sets) or quantitative theoretical skills (the ability to solve complicated theoretical models using computational methods).

It is dangerous to pick a specific topic geared for your "dream job." The better idea is to choose a general topic area that you are interested in.

*F. Suggested Reading*

The American Economics Association website has a section devoted to current and prospective graduate students, which maintains current reading lists on research into graduate education and on the job market in economics. Go to www.vanderbilt.edu/ADA/gradstudents. Under the subject heading "Research Literature", click on "Graduate Economics Education" or on "Economics Job Market and Salaries" for these readings.

One article on the "Economics Job Market and Salaries" reading list that I especially recommend is "A guide (and advice) for Economists on the US Junior Academic Job Market", by John Cawley, published in the 2003 Job Openings for Economists. Some other classic references are:

Hamermesh, Daniel S. (1992) "The Young Economist's Guide to Professional Etiquette." *Journal of Economic Perspectives*, Winter, pp. 169-179.

Noll, Roger. (1993) "Responding to Referees and Editors." *Newsletter of the 1993 American Economic Association Committee on the Status of Women in the Economics Profession*, Winter, pp. 15-17.

Klamer, Arjo and David Colander. (1990) *The Making of an Economist*. Westview Press, Boulder, Colorado.

## V. THE MASTERS PROGRAM

The graduate program in the Department of Economics is designed for Ph.D. students. However, an M.A. option is given to students who leave the Ph.D. program, students who wish to obtain a master's degree while continuing in the Ph.D. program, or students pursuing a Ph.D. in another field at the University of Maryland who have an interest in economics.

The M.A. requirements provide the student with a foundation in economic theory, quantitative methods, and field courses. The candidate must meet the following requirements, within a maximum time period of five years:

(1) The student must pass at least thirty hours of course work with a grade point average of 3.0 or better. Twenty-four of these course credits must be earned in courses numbered 600 or above. Up to twelve hours of course work may be done outside of economics. Up to six hours of course work done elsewhere may be applied to the course work requirement, subject to the review and approval of the Director of Graduate Studies. Such work must have been completed not more than five years previously.

(2) The student must pass the micro and macro comps at the M.A. level or higher on either of two attempts.

(3) The student must demonstrate competence in econometrics by passing Econ 623 and Econ 624 with a grade of B- or better.

(4) The student must prepare an acceptable research paper. The paper will typically be between 10 and 20 pages and will constitute original research; book reviews or purely synthetic papers are not appropriate. Many second year courses have term paper requirements that will suffice for this requirement. Papers are approved by a primary reader in the field and must earn a grade of B or better. The Graduate School requires approval of a second reader, who in practice is usually the Director of Graduate Studies.

## VI. GRADUATE SCHOOL RULES AND PROCEDURES

For more on graduate school rules, consult section II of this handbook and the Graduate Catalog available on the Graduate School Website (www.gradschool.umd.edu/catalog).

### A. *Academic Calendar*

The Academic Calendar is printed in the "Schedule of Classes" for each semester. The Schedule of Classes is available from www.testudo.umd.edu. Deadlines for applying for graduation, submitting the dissertation, nominating a dissertation committee and so on can be found at http://www.gradschool.umd.edu/current_students/deadlines_for_graduate_students.html.

### B. *Designation of Full and Part-time Graduate Students*

In order to reflect the involvement of graduate students in their programs of study and research and the use of the University resources in those programs, the Graduate School uses the "graduate unit" in making calculations to determine full or part-time status in the administration of the minimum registration requirements described below. The number of graduate units per semester credit hour is calculated in the following manner:

Courses in the series: 000-399 carry 2 units/credit hour.
Courses in the series: 400-499 carry 4 units/credit hour.
Courses in the series: 500-599 carry 5 units/credit hour.
Courses in the series: 600-897 carry 6 units/credit hour.
Research course: 799 carries 12 units/credit hour.
Research course: 898 and 899 carry 18 units/credit hour.
UMEI 005 carries 6 units/credit hour.
UMEI 006 and UMEI 008 carry 2 units/credit hour.
UMEI 007 carries 4 units/credit hour.

To be certified as full-time in the eyes of the Graduate School, a graduate student must be officially registered for a combination of courses equivalent to 48 units per semester. Graduate assistants holding regular appointments are full-time students if they are registered for at least 24 units in addition to the assistantship. Audited courses do not generate graduate units and cannot be used in calculating full- or part-time status.

C. *Registration Procedures*

Registration for the first semester of study is conducted during the department orientation. The Graduate Studies Coordinator will register students for first-year classes. Once the student is registered for the fall semester, he/she must settle the balance of his/her account at the Bursar's Office located in the Lee Building. Students who cannot attend orientation must contact the department to make alternative arrangements.

For returning students, please register through Testudo at www.testudo.umd.edu. This website contains up-to-date course listings (click on "Schedule of Classes" then the appropriate semester) as well as general information and deadlines. Students should also consult with the Graduate Studies Coordinator concerning relevant deadlines. Currently enrolled graduate students should receive an early registration email notifying them about registration procedures. Students who are teaching assistants need to make sure that there are no conflicts between their course registrations and their teaching assignments, and students should also make sure to allow enough time for travel to and from campus locations.

Once you have registered, go to www.testudo.umd.edu, click on "Records and Registration" and then "View Your Schedule" to ensure that all of your registration transactions were entered and recorded properly. You can also use this website to determine your final examination schedule. Go to www.testudo.umd.edu, click on "Schedule of Classes" and then "Official Examination Schedule".

All funded students should review the registration guidelines in section II of this Handbook prior to registration for information on how to use all available tuition remission credits each semester.

D. *Course and Credit Changes*

A graduate student may drop a course, add a course, change between audit and credit status, change the number of credits for a course within the listed range, cancel registration or withdraw from the University by obtaining the necessary approvals and observing the published deadlines and procedures. The deadlines are published each term in the Schedule of Classes (go to www.testudo.umd.edu and select "Schedule of Classes" then the appropriate semester) along with procedures governing each of these transactions. If you need to make any schedule changes after the deadlines, please see the Graduate Studies Coordinator immediately.

E. *Procedures for Late Registration*

Students who register after the established registration period (i.e. beginning with the schedule adjustment period) will be assessed a $20 late registration fee. Students who register late must consult with the Graduate Studies Coordinator.

F. *Procedures for Credit Level Change and Change of Grading Option*

Students who wish to change their grading option or credit level in a course may do so without special approval until the tenth day of class each term. After the tenth class day, departmental authorization is required until the tenth week of class. No credit level changes or grading options are permitted after the tenth week of classes.

1. Exceptions to this deadline require the written approval of the instructor and the approval of the Graduate School.

2. The departmental stamp must be placed on the change of grading option/credit level form.

3. Approved forms should be submitted to the Registrar's Office, Mitchell Building.

G. *Procedures for Withdrawal from Classes*

The term "withdrawal" means termination of enrollment with the concomitant withdrawal from all classes for a given semester. The date of the withdrawal is indicated on a graduate student's academic record. to withdraw from a semester on or before the last day of classes, a graduate student must notify the Office of the Registrar, 1113 Mitchell Building, in writing or in person. Withdrawal becomes effective on the date notification is received in the Records Office. The University Refund Policy applies to withdrawals after the first day of classes. Students who withdraw may be in violation of the University's continuous registration requirement, unless they have received a waiver of registration from the Graduate School.

If the time limitation in a pre-candidacy student's program has not lapsed (five years to reach doctoral candidacy), a graduate student is eligible to re-enroll without readmission provided they have received a waiver of registration from the graduate program or have received an approved Leave of Absence from the Graduate School; withdrawal by students who have advanced to candidacy without an approved Leave of Absence or Waiver of Registration will officially end the student's status as a graduate student at the University.

H. *Resignation from the University*

A graduate student wishing to withdraw from the University and terminate his or her graduate student standing may do so by submitting a letter to the Graduate School. The Graduate School will then cancel the student's admission status, effective as of the date the letter is received. If the student is registered for classes at the time of his/her resignation, the Graduate School will ask the Office of the Registrar to withdraw the student as of the date of resignation. The University Refund Policy applies to resignation after the first day of classes.
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A graduate student seeking to return to the University of Maryland after resigning must reapply for admission and is subject to all graduate program and Graduate School requirements. He or she may be required to repeat previously elected courses.

I. *Procedure for Canceling Registration for a Term*

To cancel a registration after the stated deadlines for a given term, a graduate student must provide a written explanation, which has been endorsed by the graduate director of his or her program to the Associate Dean for Student Affairs. If appropriate, the request will be processed and, if fees are involved, the necessary adjustments made. Please note that the cancellation of one's classes during the course of a given term is not meant to be used as a means of avoiding poor grades.

J. *Commencement*

The student must register for 6 credits of 899 during the term in which he or she plans to graduate. Applications for the diploma must be filed with the Office of Admissions and Registrations within the first three weeks of the semester in which the candidate expects to obtain a degree, except during summer session. During the summer session, the application must be filed during the first week of the second summer session. Exact dates are noted for each semester and the summer sessions in "Important Dates for Advisers and Students." Failure to meet specific deadlines may result in a delay of one or more semesters before graduation.

Academic costume is required of all candidates at commencement exercises. Those who so desire may purchase or rent caps and gowns at the UMCP student supply store. Orders must be filed eight weeks before the date of Commencement at the University Book Center in the Stamp Student Union.

## VII. SHORT COURSE DESCRIPTIONS

Please note that some advanced courses have prerequisites, listed in parentheses. Instructors may waive these prerequisites in special cases. It is assumed that all those who enroll in the graduate courses listed here have the necessary undergraduate economics, mathematics, and statistical background; thus first-year classes do not explicitly identify prerequisites. This list in no way guarantees that any given course will be offered in any given year.

### FIRST YEAR COURSES

ECON 601 MACROECONOMIC ANALYSIS I

Models of optimal consumption, investment and asset pricing. Dynamic programming under certainty and uncertainty. General equilibrium models of capital accumulation, economic growth, and optimal economic policy. Time inconsistency.

ECON 602 MACROECONOMIC ANALYSIS II (ECON 601 or permission of department)

Further applications of dynamic macroeconomic theory, emphasizing topics from 601 as well as monetary economics, economic policy and business cycles.

ECON 603 MICROECONOMIC ANALYSIS I

First course in year-long introduction to graduate-level microeconomic theory. First half of course focuses on consumer theory, theory of the firm under perfect competition, monopoly, and price discrimination. Second half of course is an introduction to non-cooperative game theory, including both static and dynamic games, and games of both complete and incomplete information.

ECON 604 MICROECONOMIC ANALYSIS II (ECON 603 or permission of department)

This is the second course in year-long introduction to graduate-level microeconomic theory. First half of course focuses on analysis of markets and market equilibria; the Arrow-Debreu model of general equilibrium, the two-sector model, welfare theorems, externalities, public goods. Second half of course examines decision-making under uncertainty and the economics of markets with incomplete and asymmetric information.

ECON 623 ECONOMETRICS I (prerequisite: advanced knowledge of probability and statistics, linear algebra and permission of department)

This course covers problems of specification, estimation, hypothesis testing, and prediction in linear models. Topics include: classical linear regression and ordinary least squares, generalized linear models and generalized least squares, identification and estimation of simultaneous equation models including discussion of two-stage and three-stage least squares and other instrumental variable estimation methods. Both finite and large sample analysis of econometric procedures will be covered, and there will also be discussion of

general hypothesis testing principles including discussion of misspecification tests. In addition, the course will provide instructions on the use of a major statistical package such as Stata.

ECON 624 ECONOMETRICS II (ECON 623 or permission of the department)

A continuation of ECON 623. Topics include: Nonlinear models and nonlinear estimation methods (nonlinear least squares, generalized method of moments and maximum likelihood estimation, numerical optimization methods), panel data models, limit theory for dependent samples, univariate time series models, multivariate time series models, vector autoregressions and statistical methods for the estimation of DSGE models. The course will also provide instructions on the use of a major statistical package such as Stata.

## QUANTITATIVE METHODS

ECON 625 COMPUTATIONAL ECONOMICS

This course equips students to solve and estimate structural models that are widely used in applied microeconomic fields, such as IO, public economics, environmental and energy economics, labor, health, trade, urban economics, political economy and in fields studying business strategies such as Marketing. It will also introduce students to the computational resources available at UMD. The course will be divided into four parts covering: (i) static demand models and single-agent discrete choice; (ii) dynamic discrete choice; (iii) static and dynamic games; and, (iv) auction and matching models used in market design problems. Most applications will be drawn from IO, although other applications will be discussed and prior knowledge of IO is not required. Students will complete weekly problem sets using MATLAB or STATA, often using real data, and also complete an empirically focused research proposal.

Please note that the course is also part of the Industrial Organization sequence, and that many of the applications discussed complement the material in 662 and 664 (and 625 and 664 can be taken in either order).

ECON 626 EMPIRICAL MICROECONOMICS

This course provides an overview of modern microeconometric methods. Topics include linear and nonlinear models, causal inference (instrumental variables, difference-in-differences, regression discontinuity), and techniques for correct statistical inference (clustering, etc).

ECON 630 COMPUTATIONAL METHODS IN MACROECONOMICS

This course covers some of the essential computational methods frequently used in macroeconomics and international finance. There will be particular focus on approximating the solution to dynamic stochastic general equilibrium models. Methods for representative-agent and heterogeneous-agent models will be

extensively studied. Econometric methods such as Generalized Method of Moments, Maximum Likelihood, and Vector Autoregressions are also covered.

## ADVANCED MACROECONOMICS [also see ECON 630]

ECON 701 ADVANCED MACROECONOMICS I

Topics covered include the RBC Model, solution and calibration of macro models, shortcomings; the New Keynesian Model, estimation of macro models, shortcomings; Search Models of Money and Labor; Introduction to Models with Financial Frictions. There will be about equal emphasis on computational methods and substantive / theoretical issues.

ECON 702 ADVANCED MACROECONOMICS II

Foundations and recent advances in monetary economics with an emphasis on information frictions. Topics include theories of price setting, expectations formation and inflation determination; the monetary transmission mechanism and optimal monetary policy; coordination of monetary and fiscal policy; and the zero lower bound and unconventional policy. We will look at key empirical evidence but the emphasis will be on the theoretical frameworks that have been employed to understand the connections between real and nominal variables in the economy.

## ADVANCED MICROECONOMICS

ECON 703 ADVANCED MICROECONOMICS I

This class presents a formal treatment of game theory, and then introduces market design. The game theory portion covers foundations, dynamic games, games with incomplete information, mechanism design and signaling. Then we turn to market design. Market design combines behavioral and experimental economics with auction and matching theory to design innovative markets. Applications are seen in almost all markets and government programs that attempt to assign and sometimes price scarce resources. Market design research leads to better understanding of the incentives that guide behavior. Then the incentives can be designed to better achieve goals. Applications include matching students to schools, interns to hospitals, and kidneys to patients. In settings where prices are used to motivate behavior, auctions have been developed to assign and price scarce resources. Applications include the assignment of radio spectrum for mobile communications, the allocation of emission allowances, electricity market design to price and allocate wholesale electricity, and financial market microstructure to trade financial securities.

ECON 704 ADVANCED MICROECONOMICS II

The course currently focuses on auction theory, matching theory, and the relationship between auction theory and matching theory. The auction theory component emphasizes the study of multi-unit auctions, including clock auctions and combinatorial auctions. The matching theory component contains treatments

of one-to-one and many-to-one matching, including applications to the medical intern match, school choice, and kidney exchange. Every year, one or two topics that are timely and appear to be particularly fertile areas for research are selected for special emphasis.

## BEHAVIORAL AND EXPERIMENTAL ECONOMICS

ECON 635 EXPERIMENTAL ECONOMICS

This course is an introduction to the methodology of laboratory and field experiments. It concentrates on how experiments build on one another and allow researchers with different theoretical dispositions to narrow the range of potential disagreement.

ECON 636 BEHAVIORAL ECONOMICS

This course starts with a discussion of the standard model of decision-making under uncertainty, i.e. the expected utility model. We will then describe some empirical evidence from both economics and psychology to illustrate violations of the expected utility model. There are several models put forward to explain these violations. We will discuss the most influential of these from the literature such as *prospect theory, loss eversion, rank-dependence,* and *disappointment aversion*. Then we will extend our discussion to setups where the uncertainty is subjective. The Ellsberg (1961) paradox and how behavioral economics addresses decision making under ambiguity will be studied. In the second part of the course we will introduce fairness models and behavioral game theory.

ECON 698B DECISION THEORY

This is a PhD-level course on decision theory. We will focus mainly on axiomatic theories of individual decision making. Decision making is a process in which we select a course of action among available alternatives. It begins when we need to do something but we do not know what. As an economist, we are interested in (i) how decisions should be made in some ideal sense (Normative approach), (ii) why and how decisions are made the way they are (Descriptive Approach) and (iii) how can decision making be made more elective perspectives (Prescriptive Approach). First, we embark on a journey into a land of rationality to study the normative approach. Since our ability to think and knowledge are limited and time is pressing, it is not surprising that some behavioral biases will observed in decision making processes. Of course, this will require adjusting our normative theories to capture these biases. This will be the second purpose of this course. The course will introduce some new approaches to utility theory: e.g. the reference-dependent models where initial holdings matter, a model of choice from lists, choices with search, random choice models, self-control and temptation, willpower, time preference.

## COMPARATIVE INSTITUTIONAL ECONOMICS

ECON 681 COMPARATIVE INSTITUTIONAL ECONOMICS I

Theory, empirics, and practice of economic institutions. Genesis, functions, and effects of institutions. Examination of three major institutions, property, contract, and decentralization. Historical, cultural, political, and economic origins of institutions. Case studies from English history, comparative legal studies, China, history of world economic development, transition, and socialism. Perspectives from law and economics, new institutional economics, contract theory, and information theory.

ECON 682 COMPARATIVE INSTITUTIONAL ECONOMICS II

A continuation of Econ 681. A topics course focusing on current developments in the literature, such as legal origins, empirical studies of the effects of institutions on trade, development, finance, contract, and property, culture as institution and institutional determinant, theory and practice of measurement of institutions, the design of institutions, legal transplants.

## ECONOMETRICS

ECON 721 ECONOMETRICS III (ECON 624 or permission of department)

This course is oriented towards training students in the use of macro-econometric methods. Topics covered in this course will be selected from the following: Further discussion of topics covered in ECON 624, nonlinear time series models, exogeneity and causality, non-stationary time series models (unit roots, co-integration, error correction models, vector autoregressive models), econometric models of volatility (ARCH and GARCH models, and stochastic volatility models), rational expectations models, non-stationary panel data models, tests for structural change, Bayesian econometrics and methods for Bayesian computation.

ECON 722 ECONOMETRICS IV (ECON 624 or permission of department)

This course is oriented towards training students in the use of micro-econometric methods. Topics covered in this course will be selected from the following: Further discussion of topics from ECON 624, binary and multinomial response models, censored and truncated regression models, sample selection models, count data models, duration models, program evaluation and treatment effects methods, structural econometrics, the identification problem, stratified and clustered samples, spatial/cross sectional dependence models, dynamic panel data models, weak instruments, non-parametric estimation, bootstrap and jackknife methods, and pre-test estimators.

## ECONOMIC DEVELOPMENT

ECON 615 DEVELOPMENT ECONOMICS II

This class will discuss the facts about growth and development economics. It will then explore models of economic growth and institutions, with emphasis on property rights and political regimes as causal factors affecting development. The course also discusses empirical methods widely used in the field. Finally it covers important related topics including poverty, inequality, education and health.

ECON 616 DEVELOPMENT ECONOMICS I

This class surveys a variety of models explaining how market failures may lead to poverty and underdevelopment, with an emphasis on the empirical evaluation of constraints faced by individuals in developing countries and the programs that attempt to alleviate those constraints. Topics include: agricultural and land markets, labor markets, human capital in developing countries, credit markets, and consumption smoothing and risk coping.

## ECONOMIC HISTORY

ECON 611 SEMINAR IN AMERICAN ECONOMIC DEVELOPMENT

Selected topics in the long-term movements of the American economy. The course focuses on one or two facets of American economic development and the interaction of political and economic forces that shaped the development. The 19th century is typically the chronological focus, although topics from the 18th and 20th century are considered occasionally. Recent classes have focused on constitutional development (1770-1850), banking (1790-1850), transportation infrastructure (1790-1900), and the interaction of democratic political institutions and government borrowing for infrastructure (1790-1850).

ECON 613 ORIGINS AND DEVELOPMENT OF CAPITALISM

Economics 613 does focus on the origins and development of capitalism, with particular attention over the last few years has been on the “Theory of the State.” The course combines elements of political economy, institutional economics, economic history, political history, and political science to understand the transition to “modern” economies that began about 200 years ago. The transition was both economic and political and the focus of the readings and the class is to understand the deeper interaction between economics and politics. Readings in recent years have included Doug North, Mancur Olson, Acemoglu & Robinson, Robert Bates, and the work of Wallis, North and Weingast.

## ENVIRONMENTAL AND NATURAL RESOURCE ECONOMICS

### ECON 781 ENVIRONMENTAL ECONOMICS

This course covers the theory and practice of valuing environmental benefits. This includes the health, recreation and aesthetic benefits associated with controlling air and water pollution, and the damages associated with climate change. Although most of the course is focused on the United States, environmental policies in developing countries will also be covered. We also discuss the benefits of energy efficiency improvements—including the benefits of fuel economy standards and the energy paradox.

### ECON 785 ADVANCED ECONOMICS OF NATURAL RESOURCES

The course studies the use of exhaustible and renewable natural resources from normative and positive points of view. Analysis of dynamic resource problems emphasizing energy, mineral, groundwater, forestry, and fishery resources are also covered, as well as optimal, equilibrium, and intergenerational models of resource allocation.

### AREC 869W ENVIRONMENTAL TAXATION AND REGULATION

This course examines the economics of policies to address environmental externalities. Topics include the theory of public goods and externalities, cost-benefit and cost-effectiveness analysis of environmental regulations, regulatory instrument choice under uncertainty, environmental policy in an economy with pre-existing tax distortions, monitoring and enforcement of environmental regulations, distributional effects of environmental policy, and regulation of intertemporal externalities.

## INDUSTRIAL ORGANIZATION [ALSO SEE ECON 625]

### ECON 662 THEORIES OF INDUSTRIAL ORGANIZATION

Classical theories of industry organization are analyzed. Topics include monopoly price discrimination, product differentiation and bundling as well as traditional oligopoly models of Cournot and Bertrand competition. Dynamic models of oligopoly including entry deterrence and collusion are discussed in addition to games of research and development. Long-run industry structures and dynamics are also analyzed. The course investigates implications of these models for antitrust policy.

### ECON 664 EMPIRICAL STUDIES IN INDUSTRIAL ORGANIZATION

This is one of two graduate courses offeredon empirical IO. This course will review recent empirical IO literature in topics such as price discrimination, cartel and collusion, demand estimation, technological adoption, and auctions. More advanced methodologies for studying dynamic demand and supply are covered in Econ 625.

## INTERNATIONAL FINANCE AND MACROECONOMICS

ECON 741 INTERNATIONAL FINANCE

Classical puzzles in international finance. International macro data. Real business cycle models of small open economies. Sovereign default and endogenous interest rate fluctuations in small open economies. Two country models of the real exchange rate. Endogenous productivity and firm dynamics in open economies. Understanding global imbalances.

ECON 743 TOPICS IN INTERNATIONAL FINANCE

This is an advanced course on open economy macroeconomics and international finance. The course covers topics on capital flows, international financial integration, volatility in global financial markets, banking crises, international business cycles, and policy responses. The course has an empirical focus. It requires a solid knowledge of theory and econometric techniques. The mainstream economic models used for the analysis of the main issues in international macroeconomics will be carried to the data to investigate their relevance. The course relies on rigorous economic research to develop a substantive understanding of policy issues.

ECON 744 ADVANCED TOPICS IN INTERNATIONAL FINANCE

This course will explore recent research at the intersection of international trade and international finance. It is intended to help students in both fields prepare for dissertation research.

## INTERNATIONAL TRADE .

ECON 742 INTERNATIONAL TRADE

Sources and gains from trade. Effects of trade on factor prices, production location and growth. Firm-level models of trade, FDI and outsourcing. Trade policy determinants and effects.

ECON 745 ADVANCED TOPICS IN INTERNATIONAL TRADE

This course focuses on a firm-level approach to the study of international trade and on selected topics in trade. The course is intended to consolidate the tools and models learned in ECON 742, and train students in frontier research methods. The course will cover topics related to trade and heterogeneous firms, quantitative trade models, multinationals and vertical specialization, trade and firm productivity, trade costs, and distributional effects of trade. Students will learn empirical and quantitative skills to bring theoretical models to data. Successful students should be ready to start exploring potential dissertation topics in international trade by the end of the semester.

## LABOR ECONOMICS

ECON 771 FOUNDATIONS OF LABOR ECONOMICS (Advanced Labor Economics I)

Description: The first semester of the Ph.D. sequence in Labor Economics, focusing on the topics that make up the core of the field: human capital, labor demand, and labor supply. The course will trace the advancement of knowledge in each of these, from seminal work through newly released research, always emphasizing the connection between theory and practice. An introduction to U.S. labor market statistics and key data sources will also be provided. Special attention will be paid throughout the course to empirical issues of causal identification, measurement, and data quality.

ECON 772 EMPIRICAL METHODS IN LABOR ECONOMICS (ADVANCED LABOR ECONOMICS II)

This syllabus covers the second semester of the Ph.D. sequence in Labor Economics. It purpose is to give students the theoretical background and econometric tools needed to carry out applied research on labor economics. The class highlights the importance of a good balance between economic theory and solid empirical work. Core topics include endogeneity, selection bias, instrumental variables, unobserved heterogeneity, program evaluation, and structural vs. reduced form estimation. Students with excellent econometrics skills who seek advanced training in micro-econometrics should also plan to take Econ 772. Prerequisites: Students are strongly advised to have taken Econ 626 and Econ 771, and plan to take Econ 773.

ECON 773 TOPICS IN APPLIED PUBLIC AND LABOR ECONOMICS

Explores topics in labor and public economics. Studies the empirical evidence and the applied methodology used within labor and public economics. Discusses important topics in labor and public economics including immigration, education, discrimination, crime, and the role of family background. Provides instruction on how to perform empirical labor and public economic research by familiarizing students with available data sources, current research methodology, and practice with statistical packages such as Stata.

## POLITICAL ECONOMY

ECON 754 INTRODUCTION TO POLITICAL ECONOMY (Econ 601-604 or equivalent with permission of instructor)

This course provides an introduction to political economy, the study of political influences on economic policy and the study of political decision-making. Topics include: elections and voting, political equilibrium, political participation and agenda-setting; politician behavior; signaling, credibility and reputation; government efficiency; basic distributive politics; basic legislative models; and political agency

ECON 756 EMPIRICAL POLITICAL ECONOMY (Econ 754 and 623-624, or equivalent with permission of instructor).

This course provides an overview of the main topics in empirical political economy while simultaneously covering many important applied econometric techniques. On the political economy side, the course covers determinants of individual political decision making, impacts of political institutions and political determinants of long run development. Particular topics include individual voting behavior, impact of voters and politicians on policy, the influence of money and the media, effects of political incentives, voting rule impacts on policy, and the impact of institutions and political violence on economic development. Empirical techniques covered include experiments, matching estimators, event study methodology, regression discontinuity, panel data techniques, clustered errors, and advanced topics in instrumental variables estimation.

## PUBLIC ECONOMICS

ECON 652 GRADUATE PUBLIC ECONOMICS I

This course will cover externalities, public goods theory, and local public finance (with a focus on the economics of education). For each topic, we will focus on theoretical and empirical evidence as well as relevant empirical research methods (e.g. instrumental variables, regression discontinuity and regression kink designs).

ECON 752 GRADUATE PUBLIC ECONOMICS II

This course covers theoretical and empirical issues related to government tax and transfer programs. Major topics covered include the optimal design of tax and transfer policies, tax incidence and efficiency, and behavioral responses to taxation, including labor supply and savings. The course material is presented and assignments are designed with the goal of preparing students to conduct dissertation research in the field of public economics.

# VIII. OTHER RESOURCES

## COMPUTER FACILITIES

The department maintains a Graduate Lab, housing 20 Windows workstations, connected to the department's network. Additional PCs are located in the Experimental Economics Lab (described below). All students, faculty and staff have an account on the network, with a username and password. The network provides access to a variety of software, databases, and disk space.

The H-drive provides shared network disk space for faculty, staff, and students. The Z-drive provides personal disk space; please speak with the department technical support crew at support@econ.umd.edu if you wish to share any files or folders on this drive. Each student by default is given 1 GB of space; you can request more space from the network administrator as long as your request is supported by a faculty member.

The Graduate Lab has a lock that can be opened with your university ID card. If you are having problems entering the lab contact the main office. Doors to all computer labs must be kept locked at all times for security reasons.

Please obey the following rules to keep the computer labs productive:

(1) Do not alter the configuration of the computers or install new software. Report any hardware or software problems immediately to support@econ.umd.edu.

(2) If the computer freezes, reboot by pressing CTRL-ALT-DEL. If this does not work, turn the computer off (hold the power button for 5 seconds) and back on.

(3) If you are the last person to leave in the evening, close the windows, turn off the lights and securely close all doors.

(4) Keep the computer room clean. No food or drink, and clean up after yourself; bad print jobs should go to the recycling bin.

(5) The computer room should be quiet; only work-related talk.

(6) Manuals must be kept in the computer room. Return to the shelf when you are finished.

(7) Do not use more than one computer if people are waiting. Use the slower computers for email and word processing, reserving fast machines for econometric applications.

Additional information on the department's computer facilities is available on the department web page.

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| LINUX CLUSTER | The department also has a computing cluster of linux servers. All faculty and graduate students in the economics department have an account set up on the department computing cluster. The cluster, accessible at cluster.econ.umd.edu, allows students to remotely access, edit, and run STATA, SAS, GAUSS and MATLAB jobs via secure shell. Students can also run and compile C and FORTRAN code. Students can use the cluster to complete computer-oriented class homework and in their research. Every user is allocated 15G disk space. A Cluster tutorial session is given during new student orientation. Users can find information on cluster capacity as well as basic information about how to log in, how to edit a program, and how to run jobs interactively or in the background at the econ cluster wiki page (http://wiki.econ.umd.edu/cluster). Students with questions or comments can post them on the wiki page or email cluster-support@econ.umd.edu.<br><br>Access to the computing cluster requires a username and password. Each incoming class of students will receive their username and password through department email by the end of August. Students who have lost this information can email cluster-support@econ.umd.edu for help. |
| COMPUTER PRINTERS | There is a network printer in the graduate computer labs.<br><br>If you have printing problems, do not just turn off the printer and leave as this will prevent others from printing. Instead, please immediately report any problems to the technical support crew at support@econ.umd.edu.<br><br>Do not put used paper back in the printer paper tray. New paper is available in the department office. If the printer runs out of toner, send an email to support@econ.umd.edu requesting a new toner cartridge to be installed.<br><br>Please help the department (and the environment) by printing sparingly! |
| EMAIL | Each student in the department is automatically given an email account, with a user name and password, that can be accessed using Microsoft Outlook. Students using the department's network computers can access their account directly by clicking on the Outlook program icon. While off campus, students can access their email account via the web by going to https://econ.umd.edu/owa and entering their user name and password. |
| PHOTOCOPYING | Your copy code for the main office copier is the last 5 digits of your university ID number. |

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| | The Tydings Copy Center is located in 1105 Tydings Hall and is open Monday through Friday, 8:30 a.m. to 4:30 p.m. This copy center can do personal copies for you, and course packets are sold at this copy center. McKeldin Library has photocopiers on every floor. Copy cards for these machines can be purchased at the library. |
| EXPERIMENTAL LAB | The Department has an Experimental Economics Laboratory, located in Room 4104 Tydings Hall. This lab has 16 computers placed in separated booths, one internal server to network these computers, and another server which has the database for subject recruiting. All computers have experimental software installed. The lab also has a smart board. Graduate students with interests in Experimental Economics are welcome to use the lab under the supervision of their advisor and the lab director, Dr. Erkut Ozbay. |
| LIBRARY RESOURCES | McKeldin Library contains hard copies of most major economics journals. The library system maintains a webpage specifically designed to provide information for faculty and graduate students; go to http://www.lib.umd.edu/faculty.html. If you click on the "Research" tab on the top of the page, click on “Research Port” and then choose the economics subject data base, you can access a variety of databases useful to economists, including online sources of published and unpublished working papers (such as the RePEc database, the NBER working papers series, and the Berkeley Electronic Press) as well as sources of economic data such as the Historical Statistics of the US, the World Economic Outlook and World Development Indicators. Lily Griner (griner@umd.edu) is the library's reference librarian for economics. |
| COURSE READINGS | Most journal articles assigned on course syllabi are available online. Older articles published in many leading journals can be accessed from the JSTOR website (www.jstor.org). Other sources of working papers include the Econ Papers section of the Research Papers in Economics website (http://econpapers.repec.org/) and the National Bureau of Economic Research website; these websites and other sources of working papers can be accessed through the university library website, as described above. Recent published and unpublished articles are also often available from the websites of the authors. |
| LITERATURE SEARCHES | The EconLit Database can be accessed from the department's computer network. Google and Google Scholar are also good places to start a literature review. The Econ Papers section of the RePEc website provides citation information on downloadable papers. The university library's research port also has links to EconLit, Business Source Complete and other databases that can be used to search for papers in economics. |
| KITCHEN FACILITIES | The Department Lounge in 3105 includes kitchen facilities that may be used by faculty, staff and graduate students. |

The kitchen in 3114 Tydings is for faculty/staff use only.

The vending machine area on the ground floor of Tydings also has microwaves.

## IX. MISCELLANEOUS INFORMATION

**URGENT MESSAGES** In the event of an emergency, people trying to contact you should contact the Graduate Studies Coordinator, who can locate you in class or call you at home. For this reason, it is important that you keep the Graduate Studies Coordinator up-to-date on your address and phone number.

**JOURNAL DISCOUNTS** Many economics journals have student discounts. In order to qualify for these you may need verification of your student status. This is available from the Graduate Studies Coordinator.

**FORMS** In general, any form you will need to fill out while at the University of Maryland, is available from the Graduate Studies Coordinator, or at http://www.gradschool.umd.edu/gss/forms/.

**CHANGE OF ADDRESS** When you move you will need to inform the Graduate Studies Coordinator of your new address and telephone number. To change your address with the University, please go on the web to: http://www.testudo.umd.edu/Registrar.html and click on "Change Address/email". If you are an international student, you will also need to change your information in SEVIS. If you are a funded student, you will need to obtain a form from the Graduate Studies Coordinator to change your address with the payroll and benefits office.

**MAILBOXES** Each economics graduate student has a mailbox in the main office.

**SHUTTLE SERVICE** Shuttle-UM provides free bus service around campus and to and from various off-campus locations, including the College Park Metro station. Some routes require students to show a University ID card. Information on schedules and routes can be found online at www.transportation.umd.edu.

**METRO** Students can use the Metro to get around the DC area. The College Park Metro station is on the Green Line and is located about a mile from campus. Metro schedules and maps, including bus and train routes, are available at www.wmata.com.

**PARKING** Graduate students with cars can purchase a parking permit to park in one of the university's lots. For information on obtaining a parking permit, go to the Department of Transportation website: www.transportation.umd.edu.

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| STUDENT GOVERNMENT | All University of Maryland graduate students are considered members of the Graduate Student Government, an organization designed to enhance graduate life at UMCP. Their office is located in Room 1121, Stamp Student Union; their phone is (301) 314-8630 and their email is gsg-office@umd.edu. More information is available at their website, www.gsg.umd.edu. |
| RECREATION | Campus Recreation Services (www.crs.umd.edu) operates the Eppley Recreation Center and other gyms on campus. All grad students can use these facilities with a student ID. CRS offers various services including aerobics and other fitness classes, intramural sports, equipment rentals, and court rentals; many of these services are free or heavily discounted for CRS members. CRS memberships are free for currently registered students; summer registrations can also be purchased by students who are not registered for the summer. |
| OMBUDS OFFICE | The Ombuds Office of the Graduate School provides confidential, independent and impartial assistance for students who are having conflicts with the university or their program. The role of the ombudsperson is to listen to student concerns, to offer information and discuss options, and if necessary to act as an intermediary between the student and the university or program. Prof. Mark Shayman is the current ombudsperson; his email address is shayman@umd.edu. More information on the ombuds office can be found at www.gradschool.umd.edu/ombuds. |
| COUNSELING CENTER | The Counseling Center offers free and confidential professional counseling services for graduate students encountering personal, social or academic issues. The Counseling Center is located in the Shoemaker Building and is open Monday through Thursday, 8:30 AM to 9:00 PM, and Friday 8:30 AM to 4:30 PM. More information is available at 301-314-7651 or from the website www.counseling.umd.edu. |
| HEALTH CENTER | The University Health Center is located directly across from the Student Union on Campus Drive. The Center provides primary care of illness and injury, health education and consultation, dental care, a men's clinic, a women's health clinic, skin care, sports medicine, etc. Students are seen for routine care between 8 am and 6 pm. All currently registered students are eligible for care. During the semester the health fee covers routine visits, with extra fees for lab work and x-rays. For more information, see www.health.umd.edu. |
| HEALTH INSURANCE | Teaching, research and graduate assistants are eligible for the State Employee Insurance Plan options. Fellows and hourly employees are not eligible. For more information contact the Graduate Studies Coordinator. |

Those not eligible for these health insurance plans can purchase student health insurance through the Health Center. Go to www.health.umd.edu and click on the "General Insurance FAQs" tab for more information.

HOUSING

A useful resource for finding housing off-campus is the Off-Campus Housing Office (www.och.umd.edu), located in room 1110 of the Stamp Student Union; phone 301-314-3645. This office provides online lists of houses and apartments available for rents as well as an online roommate finder for those seeking roommates.

Graduate students can apply for a space in the university's residence halls, but undergraduates have priority over graduate students in getting residence hall housing, and the number of graduate students living in residence halls is extremely low. The University does offer two apartment complexes on university property reserved for graduate students, Graduate Hills and Graduate Gardens. Efficiency, one-bedroom and two-bedroom units are available. The waiting list for efficiencies is quite long; apply early if you are interested. More information on graduate student housing is available at the following website: www.resnet.umd.edu/housing/graduate.html.

MORE INFORMATION

The Graduate School Life Handbook is an online resource available at the student union's website (www.union.umd.edu/GH) with information and links concerning a wide variety of issues facing graduate students. The Graduate Catalog, available on the graduate school's website (www.gradschool.umd.edu/catalog) contains comprehensive information on university rules, procedures and policies governing graduate students.

# X. FIELD REQUIREMENTS 2018-19

***A NOTE ON MINIMUM GRADE POINT AVERAGES:***

All students must maintain a minimum grade point average of B+ or better in their three major field courses, regardless of field. Some fields also have minimum GPA requirements for the minor field. The GPAs will be calculated using the same grade weights used by the university to compute graduate GPAs. Thus, an A or A+ will count as 4.0; an A- will count as 3.7; a B+ will count as 3.3; a B will count as 3.0; a B- will count as 2.7; and so on. A student's GPA in the major field must be 3.3 or better to maintain the B+ standard. For instance, a student earning a B+, B+ and B in the three major field course would have a field GPA of (3 + 3.3 + 3.3)/3 = 3.2, which would fall below the 3.3 standard. This student would need to choose a different major field or retake one of the major field courses to get a higher grade.

## *Advanced Microeconomics*

*Major Field*

Econ 703 and 704 and a third course. The third course may be a doctoral course in theoretical Industrial Organization (e.g. Econ 661 or 662), behavioral economics (Econ 636 or 698B), a doctoral course in finance theory offered by the Business School, an advanced mathematics course, or another course approved by the microeconomic theory faculty.

Average grade of B+ or better in the courses.

Field Exam.

*Minor Field*

Econ 703 and 704.

Average grade of B+ or better in the courses ***or*** pass the field exam.

*Field Exam*

The field exam is always offered in late May or early June. It will be offered again in January only to those students who did not pass the May/June exam.

Passing the field exam is an important precondition for doing thesis research in Advanced Microeconomics. Students who have passed the field exam are encouraged to meet with faculty in the field to develop ideas for original thesis research. Our ultimate willingness to work with you as thesis advisors, however, will depend on your ability to demonstrate the capacity to execute original research in the field.

## *Advanced Macroeconomics*

*Major Field*

Econ 701, 702, and 630. Students may ask to replace one of these courses with a course in political economy, computational economics, international trade, industrial organization or some other field related to the student's research interests; the faculty will consider such requests on a case by case basis.

Average grade of B+ or better in the courses.

Field paper to be written in the 3rd year with the following deadlines: (1) initial written proposal by September 15, comments from faculty by October 1. (2) First draft by December 1, comments from faculty December 20. (3) Final draft by February 1. Revisions may be requested on the final draft, with due date to be specified by faculty.

Students wishing to write a field paper in the coming year should contact the macro faculty by early August to receive detailed instructions about the field paper process.

Students wishing to write a field paper in the third year must complete all three macro field courses during the second year.

The paper must be satisfactory to the faculty for the student to have passed the major field—the faculty considers passing the major field as a commitment to work with you as a thesis writer, so there are high standards that must be met by the paper. If your initial proposal or your first draft lacks sufficient potential, the faculty will tell you so and will encourage you to choose another topic.

Students majoring in macroeconomics who wish to write a field paper at the intersection of macro and another field, such as trade or international finance, are expected to minor in that other field and to complete both minor field courses no later than fall of the third year. You are expected to consult regularly with one or more faculty members from that field during the third year, and those faculty members will be part of the paper evaluation process. Students who wish to write a paper in macro finance are strongly encouraged to major in either macro or international finance, and to minor in the other.

*Minor Field*

Two of Econ 701, 702 and 630.

Average grade of B+ or better in the courses.

## *Behavioral and Experimental Economics*

*Major Field*

Econ 635, Econ 636 and Econ 698B.

Average grade of B+ or better in the courses.

Field exam and a B+ or better in a written experimental proposal, due on the Monday of the week of field exams (typically early June).

*Minor Field*

Two of Econ 635, Econ 636 and Econ 698B.

Average grade of B+ or better in the courses.

### *Comparative Institutional Economics*

*Major Field*

Students wishing to major in institutional economics should take an Econ 698 readings course with Professor Murrell. Two other classes will be chosen subject to consultation with and approval from Professor Murrell.

Average grade of B+ in the courses.

Field paper or field exam covering the readings course and any other courses, to be determined on a case-by-case basis. The decision on which option to take should be made in consultation with the pertinent faculty members: a field paper is very much preferred for those wishing to do a dissertation in this field. Normally the paper would constitute beginning work on a dissertation, a substantial paper due by the middle of the Spring semester of the third year. A satisfactory field paper must be completed in order for a faculty member to commit to be the student's dissertation adviser. The dissertation topic would normally follow from the paper, but it is also possible that an acceptable paper might lead to the conclusion that a different topic should be pursued.

*Minor Field*

Students wishing to minor in institutional economics should take an Econ 698 readings course with Professor Murrell. One other class will be chosen subject to consultation with and approval from Professor Murrell.

Average grade of B+ or better in the courses.

### *Computational Economics (minor field only)*

Econ 625 and Econ 630. This field will not be available as a minor option in years in which either 625 or 630 (or equivalent) are not taught.

Average grade of B+ or better in courses.

Paper that is judged by faculty to be satisfactory overall as well as computationally intensive. The paper requirement can be satisfied only by a major field paper, third year paper or equivalent; a second year term paper will generally not suffice.

Students wishing to minor in computational economics are strongly encouraged to take Econ 701 as well as Econ 630. Students who are planning to take 630 but not 701 must consult first with Professor Aruoba.

### *Economic Development*

*Major Field*

Econ 615, Econ 616, and one other course to be approved by the development faculty.

In rare cases, students may be permitted to substitute Econ 615 or 616 with an approved course from another field. This option will be extended on a case-by-case basis when the development faculty agree that a student's academic interests would best be served by pursuing a combination of courses spanning multiple fields.

Average grade of B+ or better in courses.

Field paper: Proposal due to a faculty member in the field by end of Spring Semester of the 2nd year. This proposal may be written as part of the coursework in 615 or 616. The first version of the field paper is due on Feb 1 of third year. If the first version does not pass the field requirement, the student will be notified by Feb 15 that they either have failed an attempt at passing the field, or that the paper is at the "Revise and Resubmit" stage. In either of those cases, the student can submit a revised version of the paper no later than April 20. If the first submission was deemed to be a failed attempt at passing the field, this revised version will be considered the second (and final) attempt at passing the department's field requirement.

Passing the field paper assures students that the development faculty will discuss the student's proposed dissertation research with them for the following year. Any further commitment beyond one year depends on evidence of satisfactory progress by the student, unless the development faculty agree that there were extenuating circumstances for the lack of progress, such as illness or other personal issues.

*Minor Field*

Econ 615 and Econ 616. In rare cases, students may be permitted to substitute another approved course for Econ 615 or Econ 616. This option will be extended on a case by case basis.

Average grade of B+ or better in courses.

### *Econometrics*

*Major Field*

The Major Field requirement consists of three courses beyond the first year econometrics

requirements, as well as a field exam. The three courses must include either Econ 721 or 722 (or, as recommended, both). The remaining course (or two courses) must be selected from the following: econometrics topics course to be selected in consultation with the econometrics faculty (provided it is offered in that year), or either Econ 625, Econ 626, Econ 630, or a course in another department to be selected in consultation with the econometrics faculty.

Average grade of B+ or better in courses.

The field exam will be based on the material of Econ 623, 624 and either 721 or 722 as specified by the student. Passing the field exam is an important precondition for doing thesis research in Econometrics. Students who have passed the field exam are encouraged to meet with faculty in the field to develop ideas for original thesis research. Our ultimate willingness to work with you as thesis advisors, however, will depend on your ability to demonstrate the capacity to execute original research in the field.

*Minor Field*

The "Minor Field" requirements consist of two courses beyond the first year econometrics requirements. At least one of these courses must be Econ 721 or 722. If only one of these two courses is taken, the remaining course must be selected from the following: econometrics topics course to be selected in consultation with the econometrics faculty (provided it is offered in that year), Econ 625, Econ 626, Econ 630, or a course in another department to be selected in consultation with the econometrics faculty.

Average grade of B+ or better in the courses, or pass the field exam.

## ***Economic History***

The field requirements in economic history are different than other fields. There is a lot to learn in economic history and the field cannot be mastered through models and applications. Students taking the field as a major or minor typically take Econ 611 and 613 (when offered) as well as a readings course (labeled as Econ 698) with the history faculty. For a major field, if 611 or 613 are not offered, the third course can be chosen from another field in consultation with this history faculty. Readings are focused on a different theme each semester. Students typically meet every other week with faculty.

Average grade of B+ or better in courses.

Most students are ready to take a field exam at the end of their third year and prepare a third year paper. The difference between the major and minor field is the amount of reading. Aside from general readings, topics covered are geared to the interests of the students both geographically and topically. Field exams are given when the student is ready and are tailored to the topics that student(s) covered.

### *Environmental and Natural Resource Economics*

*Major Field*

Econ 781, Econ 785 and AREC 869W (Environmental Taxation and Regulation). Students may propose a graduate course in AREC (e.g. Environment and Development Economics) in lieu of one of the courses listed above; faculty will consider such requests on a case by case basis.

Average grade of B+ or better in the courses.

Field exam where students must synthesize the literature on a particular topic and elaborate on its policy implications. There will be an "environmental" topic and a "natural resource" topic to be chosen from a list specified in advance of the exam. A paper containing original analysis on a topic relevant to the field may be submitted in lieu of the field exam. Students must consult with faculty in advance if they wish to pursue this option.

*Minor Field*

Two of Econ 781, Econ 785 and AREC 869W (Environmental Taxation and Regulation). Students may propose a graduate course in AREC (e.g. Environment and Development Economics) in lieu of one of the courses listed above; faculty will consider such requests on a case by case basis.

Average grade of B+ or better in the courses or pass the field exam. A paper containing original analysis on a topic relevant to the field may be submitted in lieu of the field exam. Students must consult with faculty in advance if they wish to pursue this option.

### *Finance (courses offered by Business School)*

*Major Field*

BMGT 840; either BMGT 841 or 843; and one other course, which can be 841, 843, or another 800-level classroom course in finance offered by the Business School, subject to the approval of the Graduate Director of Economics.

Average grade of B+ or better in the three courses.

Field exam.

*Minor Field*

BMGT 840; and one other course, which can be BMGT 841, 843, or another 800- level classroom course in finance offered by the Business School, subject to the approval of the Graduate Director of Economics.

Average grade of B+ or better in the two courses.

### *Industrial Organization*

*Major Field*

Econ 625, 662 and 664. Requests to substitute a course from another field (such as micro theory or behavioral economics) for one of these required courses will be considered by the IO faculty on a case-by-case basis.

Average grade of B+ or better in the courses.

Proposal and paper requirements:

(i) "Second year research proposal" to be completed by June 10 based on empirical material in either 625 or 664. The proposal should be the basis of a paper that the student can complete over the summer. This means that the student should have the data in hand or accessible by this date. A student can also submit a completed paper by this date, in which case the faculty will decide if it can be used to meet requirement (ii).

(ii) Completed empirical paper ("summer paper") to be submitted by the end of the first week of the Fall semester of the student's third year. This paper cannot be a proposal, although a well-founded replication/investigation of the existing literature may be acceptable. Students who need help with English writing are encouraged to consider free on-campus services available from the Graduate Writing Center, or hiring a professional editor.

(iii) An additional paper to be completed during the third year (topic can be theory or empirical; if it is an extension of the summer paper this must be agreed to by faculty). The third year paper has the following deadlines: (a) proposal to faculty by October 15, containing detailed outline of the question to be addressed, intended work plan with timetable and discussion of existing literature; (b) written progress report submitted by December 15; (c) draft paper submitted by February 28; (d) final paper submitted by April 30.

Students should also present their research in Econ 708 during the Spring semester. Students should expect to receive feedback from faculty within 10 days of making a submission. The faculty has the right to require the student to make significant changes to the proposal/paper during the year.

*Minor Field*

Two of Econ 625, 662 and 664.

Average grade of B+ or better in the courses.

*Recommended Courses*

Students who are interested in theoretical industrial organization should take two or courses in the advanced microeconomics sequence (Econ 703 and 704) and/or behavioral economics (Econ 636 or 698B).

### *International Trade*

*Major Field*

Econ 742 and 745, and one other course decided in consultation with trade faculty.

Average grade of B+ or better in the courses.

Field paper.

*Minor Field*

Econ 742 and 745.

Average grade of B+ or better in the courses.

### *International Finance and Macroeconomics*

*Major Field*

Econ 741, 743 and 744.

A- or better in either Econ 741, 743 or 744, and an average grade of B+ or better in the two courses used for the major field.

Field paper to be written in the 3rd year with the following deadlines: (1) initial written proposal by September 15, comments from faculty by October 1. (2) First draft by December 1, comments from faculty December 20. (3) Final draft by February 1. Revisions may be requested on the final draft, with due date to be specified by faculty.

Students wishing to write a field paper in the coming year should contact the faculty by early August to receive detailed instructions about the field paper process.

Students wishing to write a field paper in the third year must complete the field courses in the second year.

The paper must be satisfactory to the faculty for the student to have passed the major field—the faculty considers passing the major field as a commitment to work with you as a thesis writer, so there are high standards that must be met by the paper. If your initial proposal or your first draft lacks sufficient potential, the faculty will tell you so and will encourage you to choose another topic.

Students majoring in international finance who wish to write a field paper at the intersection of international finance and another field, such as trade or macroeconomics, are expected to minor in that other field and to complete both minor field courses no later than fall of the third year. You are expected to consult regularly with one or more faculty members from that field during the third year, and those faculty members will be part of the paper evaluation process.

Students who wish to write a paper in macro finance are strongly encouraged to major in either macro or international finance, and to minor in the other. If you do not at least minor in international finance, you should not expect to have international finance faculty advising you on your thesis or third year paper.

*Minor Field*

Two of Econ 741, 743 and 744.

Average grade of B+ or better in the courses.

### ***Labor Economics***

*Major Field*

Econ 771 and 772 and one other course, which can be Econ 773 or another course chosen in consultation with the labor economics faculty.

Average grade of B+ or better in the courses.

Field paper: proposal due to a faculty member in the field by end of Spring Semester of the 2nd year. This proposal may be written as part of the coursework in 772 or 773. The first version of the field paper is due on Feb 1 of third year. If the first version does not pass the field requirement, the student will be notified by Feb 15 that they either have failed an attempt at passing the field, or that the paper is at the "Revise and Resubmit" stage. In either of those cases, the student can submit a revised version of the paper no later than April 20. If the first submission was deemed to be a failed attempt at passing the field, this revised version will be considered the second (and final) attempt at passing the department's field requirement.

*Minor Field*

Econ 771 and 772.

Average grade of B+ or better in the courses.

*Notes*

Students wishing to major in labor economics are urged to take Econ 626 and/or Econ 722 as supporting courses.

The field paper will be judged based on the quality of the value added by the student

submitting the paper. Ideally, the paper will become a dissertation chapter for those who choose Labor Economics as their major field. The faculty recognizes, however, that some good ideas simply do not work out well enough to become parts of dissertations. In such a situation, we will encourage a student to finish up the field paper as early as possible so that the student can begin working on something more promising.

### *Political Economy*

*Major Field*

Econ 754 and 756, and a third course chosen in consultation with the Political Economy faculty.

Average grade of B+ or better in the courses.

Field paper written in the third year. Field paper proposal due on September 15; first draft due on December 1; and final draft due on March 15. The faculty may ask for a revision of the final draft of the field paper, with due date later in the Spring.

*Minor Field*

Econ 754 and 756.

Average grade of B+ or better in the courses.

### *Public Economics*

*Major Field*

Econ 752, 652 and a third course chosen in consultation with the public economics faculty.

Average grade of B+ or better in the courses.

Field paper: proposal due to a faculty member in the field by end of Spring Semester of the 2nd year. This proposal may be written as part of the coursework in Econ 752. The first version of the field paper is due on Feb 1 of third year. If the first version does not pass the field requirement, the student will be notified by Feb 15 that they either have failed an attempt at passing the field, or that the paper is at the "Revise and Resubmit" stage. In either of those cases, the student can submit a revised version of the paper no later than April 20. If the first submission was deemed to be a failed attempt at passing the field, this revised version will be considered the second (and final) attempt at passing the department's field requirement.

*Minor Field*

Econ 752 and 652.

Average grade of B+ or better in the courses.

The faculty considers passing the major field as a commitment to work with you as a thesis writer, so there are high standards that must be met by the paper. If your original proposal or draft lacks sufficient potential, the faculty will tell you so and insist that you choose another topic.