

**GRADUATE STUDY IN ECONOMICS:  
A STUDENT HANDBOOK**

**2021-22**

**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 (EGSA) is a non-profit, student-run organization dedicated primarily to assisting first-year students' transition into the program. EGSAs members frequently hold meetings with first-year students to address specific concerns they have with courses, living arrangements, and other matters.. EGSAs is also instrumental in operating "Field Day" in the Spring.

Apart from formal meetings, EGSAs plans recreational events, e.g. picnics, to build greater cohort unity among the first-year class. EGSAs members are always available via email to address questions concerning the program.

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

In addition to organizing the special events mentioned above, the EGSAs 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, they only have to retake the failed exam

## 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 exams 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, plus an additional supporting course. Students take two additional supporting courses in the third year. Many field classes include term papers or research proposals, which can be the springboard for papers due in the third year.

Students are required to turn in a research paper in a relevant field by the start of the third year. Students should consult with faculty on this paper in the spring semester of the second year, and should work on this paper in the following summer. The rest of the third year is spent finishing course work and field requirements, and making progress on the doctoral dissertation. Students must write a second satisfactory paper by the end of their third year. Students are expected to meet with faculty to discuss this paper early in the third year. Some fields also require a field exam instead of or in addition to the field paper; field exams are typically taken following the second year. Even if a field does not have a paper requirement, students in all fields are still subject to the third-year paper requirements. Field requirements are listed at the back of this handbook.

Grad students are expected to participate actively in two research workshops starting in the third year, and are encouraged to attend prior to the 3<sup>rd</sup> year. The field (800-level) workshops feature invited speakers. Students should attend the workshop in their major field. Funded students should register for an 800-level workshop whenever they have sufficient tuition remission available, starting in the third year. 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 in the third year and up attend a weekly lunchtime "brownbag" workshop, where students present work in progress to fellow students and to faculty. Econ 708 is the brownbag for micro students, and is often split into two sections, one for micro theory, industrial organization and behavioral economics, and the other for labor, public and development economics. Econ 709 is the workshop for macro and international economics. Students are expected to participate in one brownbag each semester starting their third year. Students should make at least one brownbag presentation per year, starting in their third year, although students can present earlier if they are making early progress on research. Funded students should register for 708 or 709 if they have sufficient tuition remission, starting in the third year.

Students are expected defend a dissertation proposal by the end of the fourth year. The proposal defense is made before a committee consisting of three faculty advisors, one or more of whom must be designated as the committee chair. Your advisors will usually be drawn from your major research field or closely related fields.

Students typically enter the job market in the fall of the fifth or sixth year. To go on the job market, you need at least one strong completed paper (the “job market paper”). Having more good papers completed will help you get a better job, as will having one or more papers under submission for publication. Your advisors will help you determine whether you are ready to go on the market or whether you would benefit from staying one more year. Students should be aware that department funding is 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 pass an oral defense of the completed dissertation, and turn in the final, approved written version of their thesis to the graduate school. Guidelines for the dissertation are discussed below. In most cases the thesis defense happens in the spring of or the summer following the fifth or sixth year.

### COVID-19 AND PROGRAM REQUIREMENTS

The program and other requirements listed in this handbook are generally long-run policies that apply during normal times. Some of these requirements were relaxed or changed beginning in Spring 2020 to accommodate special circumstances created by the Covid-19 pandemic. We will continue to make sensible adjustments as needed in response to the evolution of the pandemic, in consultation with faculty, graduate students, and college and university authorities. Any changes to the requirements laid out in this handbook will be communicated to students via email by the Chair and/or Director of Graduate Studies.

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

Students must pass written exams in micro and macro theory, satisfy major field requirements in one field and minor field requirements in a second, complete other required courses, and write and successfully defend a 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 they only need to re-take the failed exam. If a student fails both, they must re-take both. Students who fail one or both exams twice typically must leave the program with an MA degree by the end of the second year, although in some cases students may petition to remain in the program (see below). Students in general are expected to take comps during the summer following the first year of classes, unless they have been granted permission to delay comps for medical or other reasons.

While no courses are required, normal preparation for comps 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 questions are available from the Graduate Studies Coordinator, and are also available in some cases 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 may 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 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 must be filed 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. This letter must attest that the student has outstanding academic potential and that the faculty member would like to work with the student on their dissertation.

Petitions are reviewed by the Director of Graduate Studies and the committee chair of the comp that the student did not pass. The committee chair may designate another faculty member to serve in their place. In considering the student's petition, the committee will examine first and second year course grades, indicators of the student's research potential, and the reports of faculty members who are familiar with the student. The committee will pay special attention to grades and instructors from the student's second year. Petitions are unlikely to be granted for students who did not maintain an A average in second year courses. Petitions will be granted only when the student has demonstrated outstanding potential outside of comps.

Decisions on petitions will be announced no later than April 1. All decisions are final.

Should the petition be granted, the student will be allowed to continue in the Ph.D. program, and will be eligible for department funding as if the student had passed 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 exam. 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 if (i) the student had not completed the requisite course work in time to take the June exam, or (ii) the student failed the June 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 field requirements are shown in Section X of this handbook. Students can also major or minor in finance by taking graduate courses in the Business School, and can minor in Computational Economics. Requirements for these options 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 comps, satisfying the major and minor field course requirements and taking one supporting course (earning a grade of B- or better), 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 requirement prior to advancing to candidacy, although students do need to complete all field requirements prior to the end of their third year to retain guaranteed department funding. Many students will be eligible to advance to candidacy by the end of their second year.

Students wishing to advance must fill out a worksheet, available from the Graduate Studies Coordinator. Once this worksheet has been approved by the Director of Graduate Studies, the department will process the student's application for candidacy to 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 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 regularly 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 workshops 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 Courses

Students must take three additional supporting courses at the 600 level or above, beyond the required field courses and first-year econometrics courses. Most students will take one supporting course in their second year and two supporting courses in their third year (preferably one in each semester). These can be courses in economic history, quantitative methods or advanced econometrics; courses from a third field related to the student's research interests; or additional courses from a student's major or minor field.

Students may also take graduate courses in other departments, such as Finance, Math, Agricultural and Resource Economics, or Government and Politics. 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 take at least one of these supporting courses for a grade and must earn a grade of B- or better. Students must pass at least one supporting course with a grade of B- or better prior to advancing to candidacy. Students can audit the other two supporting courses; auditing requires that the student formally register, participate and use tuition remission. Students may not audit more than one course in a semester.

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:

Students who are advanced to candidacy are automatically registered for 6 credits of Econ 899 (doctoral research) per semester. Students who are not yet advanced to candidacy can register for one or more credits of Econ 898 (pre-candidacy research). See the registration guidelines below. Students must have 12 or more combined credits in Econ 898 and Econ 899 to graduate.

## 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 three supporting courses will have 14 courses; but students who (for instance) take the micro comp without taking first year micro due to prior graduate work do not have to take additional courses to "get up to 14". Students may take more than 14 courses, provided they have sufficient tuition remission. Students should not take more than three courses per semester, and should not take more than one classroom course per semester starting the third year, so that they can focus on research.

## E. *The Doctoral Dissertation*

### 1. Third year “summer paper” requirement

All students are required to submit 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. Students will need to devote significant time in the summer after their second year to writing this paper. In some cases, this 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. In many cases, this paper will be empirical, but each field has discretion about what is required for this paper. Prizes are awarded for the best summer papers.

### 2. Third year spring paper requirement

All students, regardless of field, must write an additional paper related to their dissertation research and have it approved by a faculty member by the end of the third year. Each field sets its own deadlines and standards for acceptable papers. Students may co-author this 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 field requirements and third year papers. Students in the fourth year and beyond are 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, one or more of whom are designated as the student's dissertation chair(s). Proposal defenses are scheduled by the student with permission of the chair. The written proposal must be submitted to committee members at least two weeks ahead of the proposal defense. The committee may deem that: (i) the dissertation proposal is satisfactory; (ii) the proposal needs modification; 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 student should plan to 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 before May of the fourth year. Extensions can be granted by the Director of Graduate Studies, if the main advisor certifies that the extension is needed because of scheduling conflicts or other factors beyond the student's control, not lack of progress.

### 5. 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 advancement to candidacy. In most cases, the student's advisors will ask for additional revisions following the oral examination before giving their final approval. 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 following Thesis and Dissertation Filing webpage, part of the graduate school's website: <https://gradschool.umd.edu/students/academic-progress/thesis-and-dissertation-filing>

Dissertations must adhere to University format requirements regarding appendices, references, tables of contents, and so on. Information on these requirements is available from the Graduate Studies Coordinator.

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 tenure-track members of the Graduate Faculty (Assistant, Associate or Full Professors) of the University of Maryland at College Park. Each dissertation committee will have a chair, who must be a tenure-track 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 dissertation committees, provided their credentials warrant this service. Such individuals must be approved by the Department and Graduate School as Special Members of the Graduate Faculty. Students wishing to have such individuals 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 members of the Graduate Faculty may also serve on dissertation committees.

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 oral exam date. 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 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 are expected to be physically present for the defense.** If extenuating circumstances warrant, one or more members of the committee (not the chair or Dean's Representative) can participate remotely through videoconferencing; students wishing to use this option must notify the Graduate Studies Coordinator well before the defense, so that we can get approval from the Graduate School.

Committee members must receive the written dissertation at least two weeks before the scheduled defense. All doctoral defenses are open to the public, although guests are required to leave during deliberations. Dissertation defenses 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 case of failure, the examining committee must specify the reasons in detail and in writing to the department graduate director, the Dean of the Graduate School and the student. A second defense is permitted, which if failed results in termination of the student's admitted status.

#### *F. Registration Guidelines*

Full-time graduate assistants and fellows typically have 10 credits of tuition remission available. The following are guidelines on how to use these credits.

##### 1. First and Second Year Students

You will typically register for 3 courses (9 credits) per semester.

##### 2. Third Years and Higher Who Have Advanced to Candidacy

You will automatically be registered for 6 credits of Econ 899 (post-candidacy research). You should register for 899 with your principal thesis advisor, or (if you do not yet have a formal committee) the faculty member with whom you talk the most about your research. If you have co-chairs, you should register with one in the fall semester and the other in the spring semester.

If you are taking a classroom course (such as a supporting course), then you will use 3 credits on that course. If you are not taking a classroom course, you should register 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 to avoid out of pocket costs. If you take a classroom course, you will not be able to 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

You should use your credits first on classroom courses (such as a supporting course). If you have sufficient remaining credits of tuition remission, you should register for a brownbag workshop (708 or 709) and an 800-level workshop. If you have credits remaining after registering for courses and workshops, you should register for credits of Econ 898 with your principal thesis advisor, or the faculty member with whom you discuss your research the most.

#### *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: <https://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 and doctors 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 are found responsible for academic misconduct will in general lose their entitlement to future department funding and will receive a failing grade on the exam, paper or course.

## **GRADUATE SCHOOL RULES AND REQUIREMENTS**

In addition to department rules and requirements, students must comply with rules set out by the Graduate School. These policies are listed in detail at the Graduate School's website; see <https://www.gradschool.umd.edu/policies>. 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, with the following exceptions.

- 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 not use any university facilities, including faculty time, for the entire semester. Applications for waivers must be submitted to the Graduate School at least 30 days before the semester starts. Such waivers do not extend the time limitations for degree completion or advancement to candidacy (see item 4 below).
- 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 not use any university facilities, including faculty time, for the entire semester. Applications for fee waivers must be submitted to the Graduate School at least 30 days before the semester starts. Such waivers do not extend the time limitations for degree completion or advancement to candidacy.
- All students (regardless of candidacy status) may request a Leave of Absence from the university for one or two semesters for childbirth, adoption, a serious health condition (mental and/or physical), caring for incapacitated dependents (such as children, ill or injured partners, or aging parents), or situations that present financial hardship. Registration requirements are waived for students on an approved Leave of Absence. The time taken on an approved leave of absence does not count against the time limitations for degree completion and advancement to candidacy.

- Graduate students in the United States Armed Forces, including members of the National Guard or Reserve, may apply for a leave of absence to fulfill a voluntary or involuntary service commitment. Students may apply for a leave of absence of up to two semesters, during which time the requirement of continuous graduate registration is suspended.
- All waivers and leaves of absence must be approved by the Director of Graduate Studies. Information and forms for waivers and leaves of absence are available at the Graduate School website.

## 2. Health Insurance

All graduate students at the University of Maryland must maintain health insurance. Students who are graduate assistants are offered subsidized health insurance through the State of Maryland. Students who are not graduate assistants or choose not to take State health insurance benefits can enroll in the Student Health Insurance Program or obtain external coverage, such as coverage through a parent or spouse. Students who obtain external coverage will be asked to provide evidence of coverage to the Graduate School.

## 3. 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 (two semesters) 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, although the Director of Graduate Studies can petition for an extension.

## 4. 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 advancing to candidacy. Overall, students must complete their Ph.D. within nine years of entering the program. Time taken for an approved Leave of Absence 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 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 an 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.

## 5. Parental Accommodation Policy

In addition to the option of taking a leave of absence for childbearing, adoption, serious health condition, dependent care or financial hardship (see above), the University has adopted a Graduate Student Parental Accommodation policy that provides up to six 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 any 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 six-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 this period. Students will retain funding during this period and the department will find a substitute to ensure that GA work is completed.

In general, applications for parental accommodation must be submitted to the Graduate School at least 8 weeks prior to the expected birth date, and must be supported by the Department Chair, Graduate Director, and main advisor.

For more information and forms, please consult the graduate school website.

## 6. Grievance Procedure and the Ombuds Officer for Graduate Students

If a graduate student believes that they have experienced arbitrary or capricious grading, they should first try to resolve their concern informally by meeting with the instructor (or with the department Chair or Director of Graduate Studies if the instructor is not available). If this informal process does not resolve the problem, students may appeal

formally to the Dean of the Graduate School. More details can be found on the graduate school website:

<https://academiccatalog.umd.edu/graduate/policies/school-policies/>

If a graduate student believes that they have experienced treatment (aside from grading) that is unethical, grossly unjust, uncivil, or otherwise creates a hostile learning or working environment from a faculty member, a staff member, or another student, the student should attempt to resolve the matters locally, collegially, and informally, by discussing the situation with the person/persons (faculty member, staff member, and/or student) as expeditiously as possible and/or practical.

If a satisfactory resolution is not reached, the graduate student should next discuss the situation with the Director of Graduate Studies and/or the Department Chair. It is expected that these discussions will be kept confidential and not discussed publicly beyond the individuals involved. The Department's formal procedures for handling grievances will be provided upon request.

Either before or after such discussions, the graduate student may wish to confidentially seek advice from another academic advisor, an assistant or associate dean of their college or of the Graduate School, or the Ombuds Officer for Graduate Students. The graduate student is encouraged to consult with the Ombuds Officer early in the informal discussion process, and must consult with the Ombuds Officer before initiating a formal grievance. The Ombuds Officer is available to all graduate students with questions or concerns related to their graduate experience, including their roles as GAs. The Ombuds Officer provides informal assistance in resolving conflicts and works to promote fair and equitable treatment within the University. The Ombuds Officer works confidentially within the scope of the law. The purpose of the Ombuds Officer is to ensure that the graduate student's voice is heard and that problems receive prompt and impartial attention. The Ombuds Officer does not advocate for an individual; rather, the Ombuds Officer advocates for a fair process that promotes the University's commitment to excellence in graduate education and in the graduate student experience.

If the conflict cannot be resolved informally or at the department level, and/or the graduate student does not feel comfortable disclosing an issue to one or more of these parties, the grievance shall be formally filed with the Dean of the College of Behavioral or Social Science. The Dean will initiate the grievance process created within the College to address such issues. The process is to remain confidential and not publicly discussed beyond the parties involved. If the Director of Graduate Studies or Chair or Dean is the subject of the accused, said person will recuse him or herself.

In cases in which the grievance is still not effectively resolved, the graduate student may file an appeal to the Graduate School. If the grievance is with the Director of Graduate Studies or Dean, the appeal may be made directly to the Dean of the Graduate School.

Further information about the rules governing such appeals is available on the graduate school website (see the link above).

### 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, 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, as defined below. Students may be offered support sooner if they compile an above average record on comps and courses and demonstrate excellent research potential, although such support is contingent on departmental needs and resources.

Students may defer up to two semesters of guaranteed support. For instance, if you get an external dissertation fellowship and turn down department funding in (say) your third year, you will be entitled to department funding in your sixth year, contingent on satisfactory progress.

For funding purposes, students will be considered as making satisfactory progress if 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 comps, or 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 unless a delay is granted by the department.
- (2) Students must satisfy all major and minor field requirements, as well as the third-year summer paper and spring paper requirements, by the end of their third year.
- (3) Students must defend their dissertation proposal by the end of the spring semester of their fourth year.
- (4) 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 dissertation internships with the Federal Reserve; research grants to fund specific expenses, such as the NSF Doctoral Dissertation Improvement Grant; 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 what 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 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 help you determine whether you should actually submit the application.

In addition to making satisfactory progress, students must perform their assistantship duties in a satisfactory manner, and must maintain standards of academic integrity.

- In general, students must be available to work on campus to be guaranteed funding. This rule may be relaxed on a case-by-case basis if there are assistantship jobs available that can be done remotely, but students are not entitled to such jobs.
- Even if some or all of a student's work can be performed remotely, students must in all cases reside in the United States during the semester to receive an assistantship. Brief trips overseas are permitted during the semester, provided the student notifies their supervisor well in advance and arranges to have all work covered.
- Graduate assistants are expected to be available for work starting no later than one week before the start of the semester, and until all work is completed at the end of the semester. You must consult with your supervisor or the graduate director before making end-of-semester or end-of-break travel plans to make sure that you are fulfilling your duties.
- International students who are entering funding for the first time, or who are returning to funding after one or more semesters off, may need to be in the United States prior to the start of the semester to be added to payroll in a timely fashion. Such students should consult with the department's payroll coordinator about their travel plans.
- Students who do not perform their assistantship duties satisfactorily will first receive a warning and a chance to remediate their performance from the Director of Graduate Studies. Further poor performance can result in a loss of assistantship funding.
- Students found guilty of academic misconduct, who are not available to work on campus, or who do not perform their assistantship duties in a satisfactory manner may lose their funding even if they otherwise are making satisfactory progress. Decisions regarding loss of funding are made by the Director of Graduate Studies.

## 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 class.
- b) TA: holds office hours and conducts review and/or discussion sessions of a course taught by a faculty member; this assignment may also include grading and administrative duties.
- c) Instructor: independently teaches a small section (40 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.

New assistants are usually initially assigned as graders or TAs for undergraduate classes. As students move through the program, they may be assigned more responsible positions, such as TA for a graduate course or an instructor. Language skills and performance are 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 skills of our TAs. While we prefer to assign TAs to courses that are related to their research interests, this is not always possible.

TAs are expected to be on campus at the beginning of the semester and must make travel plans accordingly. TAs working under the supervision of a course instructor must meet at or before the start of the semester to go over course duties. Ideally these duties will be specified in writing. The TA and instructor are required to certify to the Graduate Studies Coordinator that such a meeting has taken place. At the end of the semester, students must plan to remain on campus until course grades are submitted and/or all other work responsibilities are done. Students should NOT make travel plans for the end of the semester until they have consulted with their supervisor about when their work will be complete.

If you need to miss a scheduled discussion or review session due to an emergency, you must contact the main office (301-405-3266) as soon as possible so that they can post a notice. If you know in advance that you cannot make a scheduled presentation or other assignment, you must notify your instructor in advance and arrange for a substitute.

If you are an instructor of your own section, 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 one or more classes, 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 syllabi and other course materials from previous semesters 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 normally not be asked to teach 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://tlc.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 RAs vary according to their project and the source of the funding. Some RAs 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. RAs are expected to meet with their supervisor at or before the beginning of the semester to discuss duties and must certify to the Graduate Studies Coordinator that such a meeting has taken place.

## 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 may lead to the loss of guaranteed funding.

Further information on university policies on graduate assistantships can be found in the Graduate Catalog section of the Graduate School Website:

<https://academiccatalog.umd.edu/graduate/policies/policies-graduate-assistantships/>

## 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 covers up to half of the expenses of conference travel, up to a limit depending on the location of the conference, with matching support from the department, which is provided subject to the \$1500 lifetime limit discussed above. The Goldhaber grant can be used once prior to advancing to candidacy and once afterwards. In addition, students presenting at conferences outside the US can use the Graduate School's International Conference Student Support Award to defray registration fees of up to \$500. Rules and forms for these grants are available from the Graduate School's website.
- (3) The department also supports some of the travel costs of students attending the ASSA meetings in the year that they go on the job market, provided that first-round job interviews are conducted in-person at the ASSA meeting. These expenses do not count against the \$1500 limit.
- (4) The Director of Graduate Studies and Department Chair 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 from the student's main advisor explaining why the extra funding is worthwhile and why alternative funding is not available. The DGS and Chair 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. Some departmental research fellowships come with additional support; see below.
- (5) Students who wish travel support should email the Director of Graduate Studies (DGS), who will send them a form to fill out. The DGS will notify the student and relevant staff upon approval. Students applying for a Goldhaber and/or ICSSA grant should fill out the forms available on the Grad School website, and leave them with the DGS, who will fill out the bottom portions and return to the student to take to the Graduate School. 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 AND APPLY WELL IN ADVANCE if you want department and/or graduate school support for conference travel.**

### *A Note About Pandemic-Related Travel Restrictions*

Due to the ongoing pandemic, international travel is currently restricted to essential travel and

requires approval of the Department Chair and the Dean of the College of Behavioral and Social Sciences. Students who wish university or department support for such travel must include in their email to the Director of Graduate Studies a discussion of why the research is essential, why the research cannot be done remotely and why it cannot be delayed.

## AWARDS AND DISSERTATION FELLOWSHIPS FOR GRADUATE STUDENTS

### 1. The Ann G. Wylie Dissertation Fellowship

Each year the department nominates two or more advanced students for the campus-wide Ann G. Wylie Dissertation Fellowship. Winners of the Wylie fellowship receive a \$15,000 stipend, tuition remission and health coverage for one semester with no duties. Nominees must be expected to graduate in the year in which they receive the fellowship.

### 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 in June 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 to their travel budget. Wylie Fellowship nominees are not eligible.

### 3. The Ulmer Fellowship

The Melville J. Ulmer Graduate Fellowship provides \$2000 to one or more students in the third year of the Ph.D. program. The Ulmer Fellowship is awarded to the student(s) writing the best summer paper (due at the start of the third year).

### 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. The Muddappa Fellowship

The K.P. and Jalayakshmi Muddappa Graduate Award in Economics provides \$2000 annually to support an Economics Ph.D. student at Maryland who has expressed interest in pursuing post-graduation career opportunities in India and/or is doing research related to India's economy. Recipients are selected by the Graduate Director and Director of Admissions.

## 6. 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.

The department also nominates two or more 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), which includes funds 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 proposals. 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.

## 7. 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 Ewing Kaufmann Dissertation Fellowship for the study of entrepreneurship; the Dissertation Fellowship of the Center for Retirement Research at Boston College; and 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.

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.

A complete listing of recent external, department and university awards won by our student can be found on the department website:

<https://www.econ.umd.edu/graduate/award-winning-students>

#### 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 ASSA 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 your 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](http://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 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 (typically 10 courses) 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 "Policies" section of the Graduate School Website: <https://www.gradschool.umd.edu/policies>.

### 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](http://www.testudo.umd.edu). Deadlines for applying for graduation, submitting the dissertation, nominating a dissertation committee and so on can be found at <https://gradschool.umd.edu/calendar/deadlines>

### 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](http://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](http://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](http://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](http://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 classes each term. Between the tenth day of classes and

the tenth week of classes, departmental authorization is required for these changes. No changes in credit level 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.

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 they plan 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. The first half of the 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. The second half 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 trains students to develop, solve and estimate static structural models of demand and supply that can be used to address a range of questions in Industrial Organization, and which are also used in public economics, environmental and energy economics, labor, health, trade, urban economics, macroeconomics, political economy and in fields studying business strategies such as Marketing. It will also cover some core theoretical models in IO. The course will be divided into four parts covering: (i) estimation of production functions and the use of production functions to measure markups and market power; (ii) static demand and single-agent discrete choice models; (iii) static supply models, including Nash pricing, models of non-Nash conduct, auction bidding and bargaining; and, (iv) discrete choice games. Students will complete weekly problem sets using MATLAB or STATA, often using real data; do one or two in-class presentations; and complete an empirically focused research proposal. Students are welcome to audit the course, in which case they need to participate actively in class and do an in-class presentation.,.

Please note that the course is also part of the Industrial Organization sequence, and that many of the applications discussed complement the material in other field courses in IO.

ECON 626 EMPIRICAL MICROECONOMICS

This course provides an overview of modern microeconomic methods with a focus on reduced form causal inference. Tools discussed include linear regression and selection on observables, instrumental variables including LATE and the role of heterogeneity in causal inference, difference-in-difference, regression discontinuity, synthetic control, matching, propensity score methods, and inverse probability weighted estimation. In addition, inferential issues such as weak instruments and techniques for robust standard errors, clustering, bootstrap and randomized inference are discussed, time permitting.

The course places strong emphasis on relating statistical methods to substantive empirical applications. Each topic is introduced with an empirical paper that uses the technique. The discussion of technical material is at an intuitive level that focuses on applications and recommendations for empirical practice. The course offers an opportunity to work on a number of extended empirical exercises that are based on published papers and original data. Students practice working with data, implementing code in Stata and conducting their own empirical analysis. These exercises also offer practice in scientific writing relevant for empirical work.

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.

ECON 747 FINANCIAL MARKETS AND MACROECONOMICS

The focus of this course is understanding the role of imperfect capital markets for fluctuations in the macroeconomy. It teaches how to apply general equilibrium models to characterize how credit market frictions affect macroeconomic outcomes. Starting from a complete markets benchmark, we will cover canonical types of credit frictions, such as borrowing constraints on risk-free debt, and models with costly state verification and risky debt. Alongside the theory, the course revisits empirical facts on the regularities of financial variables and the 2008-09 global financial crisis. The course also aims to enhance the students' toolkit to carry out state-of-the-art research in macroeconomics more generally, by

providing practical exercises in which models are taken to the computer.

## ADVANCED MICROECONOMICS

### ECON 703 ADVANCED MICROECONOMICS I

This class presents a formal treatment of game theory. It covers games in strategic form, extensive form games, signaling games and more general Bayesian games. Equilibrium concepts and refinements are examined. The field of mechanism design is introduced and applied to optimal non-linear pricing, optimal bargaining games and the revenue equivalence theorem in auctions. Further topics include multi-dimensional mechanism design and the relationship between implementation in Bayesian Nash equilibria and in dominant strategies. If time permits, we will also study cooperative bargaining games and their recent incorporation into concepts such as Nash-in-Nash bargaining.

### 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

An exploration of how people make decisions, questioning the concept of “perfect rationality” in the standard economic theory, providing improved models in line with the observed biases of decision makers. Focuses include decision making under uncertainty (risk and ambiguity) and selfish versus pro-social preferences.

### ECON 637 (formerly ECON 698) 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 be 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, non-parametric and semiparametric methods, series estimation, machine learning tools for prediction and inference, causal inference and treatment effect models using semi-nonparametric methods and machine learning, binary and multinomial response models, structural econometrics, the identification problem, stratified and clustered samples, cross sectional interaction models including models with spatial and social interaction, dynamic panel data models without and with cross sectional interactions, non-parametric estimation and semiparametric methods, quantile regression, weak instruments, 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). The subject for individual semesters depends, in part, in the interests of the students and their research plans.

#### ECON 613 ORIGINS AND DEVELOPMENT OF CAPITALISM

Selected topics in the long term development of the developed world. Economics 613 does focus on the origins and development of capitalism, with particular attention to aspects of 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 subject for individual semesters depends, in part, in the interests of the students and their research plans.

## 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 TOPICS IN EMPIRICAL INDUSTRIAL ORGANIZATION

This course discusses the estimation of a number of structural models, including entry games, matching games, endogenous product choice models and dynamic games. The course will also cover these models' wide-ranging applications in many fields, such as industrial organization, health, labor, marketing and urban economics. The course complements and builds on the topics and methods introduced in 625 and 664. There will be two main sets of assignments, where students use real-world data or simulate data by solving models, estimate models based on the data and perform counterfactual analyses. The students will also be expected to submit a research proposal.

**ECON 664    EMPIRICAL STUDIES IN INDUSTRIAL ORGANIZATION**

This course will review recent empirical IO literature in topics such as pricing, collusion, demand estimation, information, contracting, innovation, and antitrust regulations, using applications from a wide range of regulated and unregulated industries. The course will complement the more detailed discussions of how to solve and estimate static and dynamic models in Econ 625 and Econ 662.

**ECON 698    TOPICS IN EMPIRICAL INDUSTRIAL ORGANIZATION**

This course discusses a number of methodological topics on the estimation of structural models, including entry games, matching games, endogenous product choice and dynamic games. The course complements and builds on the methods and topics introduced in 625, drawing examples primarily from Industrial Organization and occasionally the structural labor literature. There will be two main sets of assignment, where students read in data or simulate data by solving models, estimate models based on simulation data and perform counterfactual analysis. The students will also be expected to submit a research proposal.

**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)**

Description: The second semester of the Ph.D. sequence in Labor Economics. This course focuses on the empirical evidence and the applied methodology used within labor economics. The course focuses on preparing students for applied research in labor (and public) economics by practicing key econometric tools and studying the literature of certain topics. The course discusses important topics in labor economics including immigration, education, discrimination, crime, and the role of family background. The course also provides instruction on how to perform applied empirical 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 603 and 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. Many of these topics will be covered both from a rational and from a behavioral perspective.

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, advanced topics in instrumental variables estimation, and recent work in machine learning.

### PUBLIC ECONOMICS

ECON 652 **GRADUATE PUBLIC ECONOMICS I**

This course covers topics related to public economics, with an emphasis on tax policy. The material will have both theoretical and empirical components—indeed, public economics as a field is about marrying theory with data.

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 Windows 10 workstations that are 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 Z-drive provides personal disk space; please speak with the department technical support crew at [econsupport@umd.edu](mailto:econsupport@umd.edu) if you wish to share any files or folders on this drive.

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) Report any hardware or software problems immediately to [econsupport@umd.edu](mailto:econsupport@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 about the department's computer facilities are available on the department web page.

## LINUX CLUSTER

The department also has a computing cluster of CentOS Linux nodes. 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](http://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 (<https://wiki.econ.umd.edu/doku.php?id=cluster:start>). Students with questions or comments can post them on the wiki page or email [econcluster@umd.edu](mailto:econcluster@umd.edu).

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 [econcluster@umd.edu](mailto:econcluster@umd.edu) for help.

## PRINTERS

There is a network printer in the graduate computer lab; this printer is capable of black/white two-sided printing.

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 [econsupport@umd.edu](mailto:econsupport@umd.edu).

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 [econsupport@umd.edu](mailto:econsupport@umd.edu) requesting a new toner cartridge to be installed.

Each user is given a printing quota of 200 sheets (200 pages single-sided/400 pages double-sided), which refreshes monthly. Please help the department (and the environment) by printing sparingly!

## PHOTOCOPYING

Using the main office copier requires you to use your department's username and password.

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 <https://www.lib.umd.edu/rc>. 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](mailto: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](http://www.jstor.org)). Other sources of working papers include the Econ Papers section of the Research Papers in Economics website (<https://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.

## 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 <a href="http://www.gradschool.umd.edu/gss/forms/">http://www.gradschool.umd.edu/gss/forms/</a> .
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: <a href="http://www.testudo.umd.edu/Registrar.html">http://www.testudo.umd.edu/Registrar.html</a> 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 <a href="http://www.transportation.umd.edu">www.transportation.umd.edu</a> .
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 <a href="http://www.wmata.com">www.wmata.com</a> .
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: <a href="http://www.transportation.umd.edu">www.transportation.umd.edu</a> .
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 <a href="mailto:gsg-office@umd.edu">gsg-office@umd.edu</a> . More information is available at their website, <a href="http://www.gsg.umd.edu">www.gsg.umd.edu</a> .

**RECREATION**

Campus Recreation Services (<https://rec.well.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](mailto:shayman@umd.edu). More information on the ombuds office can be found at [www.gradschool.umd.edu/ombuds](http://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](http://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](http://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](http://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](http://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](http://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](http://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](http://www.gradschool.umd.edu/catalog)) contains comprehensive information on university rules, procedures and policies governing graduate students.

## X. FIELD REQUIREMENTS 2020-21

### **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, and (in some cases) in the two minor field courses. GPAs are calculated using the same weights used by the university: an A or A+ counts as a 4.0; an A- is 3.7; a B+ is 3.3; a B is 3.0; a B- is 2.7; and so on. A student's GPA in the major field must be 3.3 or better to meet the B+ standard. For instance, a student earning a B+, B+ and B in the three major field courses would have a field GPA of  $(3 + 3.3 + 3.3)/3 = 3.2$ , which is below a B+ average. This student would need to choose a different major field or retake one of the 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 behavioral economics (Econ 636 or 637), 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.

A micro theory paper containing original analysis may be substituted for the field exam. Any student who wishes to pursue this option must consult with and obtain the approval of the micro theory faculty in advance.

#### ***Minor Field***

Econ 703 and 704.

Average grade of B+ or better in the courses.

#### ***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.

#### ***Additional Note for Academic Year 2021-22:***

Econ 703 is not being offered in Fall 2021 due to a sabbatical and whether Econ 704 is

offered in the spring will depend on student demand. Students who wish to do the Advanced Microeconomics sequence this year would take Econ 704 in the spring and then take Econ 703 in the following fall (and should let Professors Ausubel and Shea know early of their interest in taking Econ 704, so that it is offered in the spring).

### ***Advanced Macroeconomics***

#### *Major Field*

Three of Econ 701, 702, 747 and 630.

Average grade of B+ or better in the courses.

#### *Minor Field*

Two of Econ 701, 702, 747 and 630, with at least one being Econ 701 or 702.

Average grade of B+ or better in the courses.

#### *Field Papers (Major Field Only)*

Summer paper: proposal submitted to faculty in macro no later than May 15, must be approved by one or more faculty members. Final paper due first day of fall semester. This proposal may be (but does not have to be) an outgrowth of a term paper written in your second year, subject to faculty approval.

Third year paper: (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.

The third-year paper may be on a separate topic or on a topic related to the summer paper. Students wishing to write a field paper in AY 2020-21 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.

These papers 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 papers. 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 or summer 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 summer and/or 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.

### ***Behavioral and Experimental Economics***

#### *Major Field*

Econ 635, Econ 636 and Econ 637

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 637

Average grade of B+ or better in the courses.

#### *Field Papers (for those who want to write a summer or third year paper with the BEE faculty)*

**Summer Paper:** “Second year research proposal” to be submitted by **June 1<sup>st</sup>** can be based on material covered in any of the Field courses. This proposal will be a basis for the Summer Paper the student will complete by the end of the summer. This proposal must be approved by one or more faculty members of the field. Final “Summer paper” is **due first day of the fall semester**. This paper may be (but doesn’t have to be) an outgrowth of a term paper or proposal written in your second year, subject to faculty approval. If it is an experimental paper, the student may collect new data (a cheap way of doing it might be an experiment on the MTurk) or needs to come up with a new question that can be addressed based on an existing data set of a previously conducted experiment by another researcher.

**Third Year Paper:** This paper will be completed by the end of the third year. Topic can be theory or empirical. If it is an extension of the summer paper, it needs to be approved by faculty. The relevant deadlines are: (a) a proposal submission to a faculty member by October 15, containing an outline of the research question, intended work plan with timeline, and discussion of the related literature; (b) a written progress report submitted by December 15; (c) draft paper submitted by March 1<sup>st</sup>; (d) final third year paper submitted by May 10<sup>th</sup>.

### ***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, such as AY 2020-21.

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.

#### ***Summer paper (due at beginning of third year)***

Proposal: a preliminary written proposal is due by the last day of spring semester of the second year. With the instructor's permission, this preliminary proposal may be a term paper or proposal submitted for Econ 615 or 616 that can be expanded to meet the

requirements for the second-year summer paper. A final proposal must be approved by at least one faculty member by June 1.

Summer paper: the final paper is due on the first day of fall semester of the third year. Satisfactory progress on the second-year paper is a prerequisite for writing a field paper in development economics.

### **Field paper**

Proposal: a written proposal is due by September 15 of the third year. If the field (and third year) paper will extend the second year summer paper, this proposal should explain the new analysis or other material to be added to the second year paper.

Draft: students are encouraged to submit a written draft of the field paper by the first week of January.

Final version: due on February 15. If revisions are required, they will be due on a date specified by faculty but no later than May 1.

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.

### **Reading Group**

Students planning to write their dissertations in development are expected to attend and actively participate in a biweekly reading group starting in their second year. This year the reading group will focus on research studying the impact of public policies in developing countries. Students already working in development and students who are planning to take development courses will be contacted over the summer with more details about this group.

#### *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.

### *Summer Proposal/Paper Requirements (Major Field Only)*

(a) "Second year research proposal" to be completed by June 1. The proposal can be based on material covered in 721 or 722 or it can be on a topic approved by at least one faculty in econometrics. Empirical projects are explicitly welcomed by the econometrics group. 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 or other source materials 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 (b).

(b) Completed 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. Emphasis is on proper academic writing with an appropriate literature review, clearly stated objectives of the work done and a discussion of how the work relates to the existing literature. 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.

### *Third Year Paper*

The econometrics field does not have a third-year paper requirement per se; students must pass the field exam and the summer proposal and paper requirements as described above. However, all students in the department must complete a paper during the third year (in addition to the summer paper), regardless of field. Students wishing to write

their third-year paper in econometrics should consult with the faculty early in the third year.

### ***Economic History***

The field requirements in economic history require reading. Students can take the field as a major or minor. Either must take Econ 611 and 613, which are usually offered in the Spring semester of alternative years. In addition, there is an ongoing reading group which meets in the fall. 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.

Students who are interested in economic history as a major field should think writing a second-year summer paper, as well as a third year paper with a historical topic or application. Major field students choose a thesis topic with a significant historical component, and then read extensively in that area. Minor field students usually continue to participate in the classes and the reading group. Topics for both the classes and reading group are geared to the research interests of the students both geographically, chronologically, and topically.

### ***Environmental and Natural Resource Economics***

#### *Major Field*

Econ 781, AREC 783 and AREC 785. Students may propose a graduate course in AREC (e.g. AREC 845 Environment and Development Economics or AREC 784 Energy Economics, Empirical Industrial Organization and Public Policy) 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, AREC 783 and AREC 785. Students may propose a graduate course in AREC (e.g. AREC 845 Environment and Development Economics or AREC 784 Energy Economics, Empirical Industrial Organization and Public Policy) 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 or more additional 800-level classroom courses in finance offered by the Business School, such that the total number of credits in finance is at least nine. For example, you could take one other three-credit course, or one two-credit course plus a one-credit course. Plans for the third course must be approved in advance by the Director of Graduate Studies in Economics.

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

Field exam.

#### *Minor Field*

BMGT 840; and one or more additional 800-level classroom courses in finance offered by the Business School, such that the total number of credits in finance is at least six. For example, you could take one other three-credit course, or one two-credit course plus a one-credit course. Plans for the second course must be approved in advance by the Director of Graduate Studies in Economics.

### ***Industrial Organization***

#### *Major Field*

Econ 625, Econ 664 and Econ 662. When only two courses are available, students should take these two, and a third course approved by the faculty. When three courses are available, faculty may also approve substitution of one of the courses with a course that is appropriate given the student's interests and background.

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

Proposal and paper requirements:

- (i) “Second year research proposal” to be completed by June 10 based on empirical material in Econ 625, Econ 664 or Econ 662. 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 for at least once by the end of the Spring semester of their third year. Students should expect to receive feedback from faculty within 10 days of making a paper 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, Econ 664 and Econ 662.

Average grade of B+ or better in the courses.

#### *Comments*

Students who are interested in theoretical industrial organization usually major in Microeconomic Theory and take Industrial Organization as a Minor Field. The faculty is open however to discussing whether this is appropriate for a particular student.

Students who are interested in empirical industrial organization usually major in Industrial Organization. The faculty is open to discussing complementary courses given the student's interest and background.

### ***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.

#### *Minor Field*

Econ 742 and 745.

Average grade of B+ or better in the courses.

#### *Field Papers (Major Field Only):*

**Second-year research proposal:** to be submitted to international trade faculty by May 20. The proposal must be approved by all faculty members in international trade in order to become the basis for the “Summer Paper” described below.

**Summer paper:** to be submitted to international trade faculty by September 1<sup>st</sup> and based on the second-year research proposal. Any significant deviation of topic from the proposal must be submitted to the trade faculty and approved by July 15<sup>th</sup>. Replication or extension of an existing paper is acceptable but students are expected to submit a complete draft, not a proposal, by the due date.

**Third-year paper:** this is to be completed during the third year according to the schedule below and submitted to the trade faculty. A key objective is to develop an original idea and show your ability for research in this field.

- Sep 15: Submit proposal including detailed research question, literature review and timeline for completion
- Oct 31: Progress presentation in trade group
- Dec 15: First draft
- Jan 31: Final draft

### *International Finance and Macroeconomics*

#### *Major Field*

Econ 741, 743 and one other course, which you must choose in consultation with and approval of the international finance faculty.

A- or better in both Econ 741 and 743. The grade for the third course must be A- or better if the course is from the international finance field, and B+ or better if the course is from another field (e.g. macroeconomics, computational economics).

#### *Minor Field*

Econ 741 and 743.

B+ or better in both courses.

#### *Field Papers (Major Field Only)*

Summer paper: proposal submitted to faculty in IF no later than May 15; must be approved by one or more faculty members. Final paper due first day of fall semester. This proposal may be (but does not have to be) an outgrowth of a term paper written in your second year, subject to faculty approval.

Third-year paper: (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.

The third-year paper may be on a separate topic or on a topic related to the summer paper.

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.

### ***Labor Economics***

#### ***Major Field***

Econ 771 and 772 and one other course, chosen in consultation with the labor economics faculty.

Average grade of B+ or better in the courses.

Proposal and paper requirements:

- (i) Second Year Paper (Summer Paper): A second year research proposal is to be completed by June 1 (of a student's second year) and must be approved by one or more faculty members in the field. 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. This proposal and subsequent paper may be (but does not have to be) an outgrowth of a term paper written in your second year, subject to faculty approval. The completed version of this empirical paper is to be submitted by the first day of fall semester of the student's third year. This paper cannot be a proposal, although a well-founded replication and extension 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.

- (ii) Third Year Paper (Field Paper): A proposal is due to a faculty member in the field by September 20. The first version of the field paper is due on February 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.

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.

#### *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.

### ***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 three courses.

It is strongly recommended that students majoring in political economy do their summer paper after the second year in political economy. This entails (1.) meeting with the faculty and getting approval for a topic, (2.) Submitting a 3-5 page proposal by June 15<sup>th</sup>, (3.) Submitting a full set of figures and tables by July 15<sup>th</sup> in the case of an empirical paper, and (4.) submitting a final draft by August 15<sup>th</sup>.

The field paper requirement is fulfilled in the third year. The presumption is that this paper will be different from the summer paper. The project proposal for this paper will be due by October 15<sup>th</sup>. A full set of figures and tables in the case of an empirical paper

will be due on January 15<sup>th</sup>. A first full draft will be due by March 15<sup>th</sup> and the final draft will be due on April 15<sup>th</sup>. The faculty may ask for a revision of the final draft of the field paper, with due date later in the Spring.

In addition, as of the third year, students are required to attend bi-monthly political economy seminars and students are expected to discuss their progress on projects in progress as well as new ideas once per month.

*Minor Field*

Econ 754 and 756.

Average grade of B+ or better in the courses.

***Public Economics***

*Major Field*

Econ 652, Econ 752 and a third course chosen in consultation with the public economics faculty. Preferred third courses include Econ 626 and Econ 772, if it is not being used to satisfy a course requirement for a minor in Labor Economics.

Average grade of B+ or better in the courses.

*Summer Paper:* This paper may be (but doesn't have to be) an outgrowth of a term paper or proposal written in your second year, subject to faculty approval. Deadlines as follows: (a) a 3-5 page research proposal submitted by June 1 after the second year; (b) final paper submitted by the first day of the fall semester of the third year; (c) paper approval from a faculty member by September 20 of the third year.

*Field Paper:* This paper must be completed by the end of the third year. Deadlines as follows: (a) 3-5 page proposal submitted by October 15 of the third year; (b) written progress report submitted by December 15; (c) draft paper submitted by February 1; (d) final paper submitted by May 1.

*Minor Field*

Econ 652 and 752; OR Econ 752 and Econ 772, if the student is not using Econ 772 to satisfy the course requirement for a major in Labor Economics.

Average grade of B+ or better in the courses.