From: Jason Abrevaya, Professor and Chair, Department of Economics  
To: Richard Flores, Senior Associate Dean for Academic Affairs, College of Liberal Arts  
Date: March 12, 2019  
Subject: IMPACT STATEMENT  
Proposed changes in requirements for declaring the Economics major

In the 2016-18 and 2018-20 Undergraduate Catalogs, freshmen and transfer students must satisfy the following requirements in order to declare an Economics major:

- A freshman must be “calculus ready” in order to start at UT-Austin as an Economics major: http://catalog.utexas.edu/general-information/admission/undergraduate-admission/#majorspecificapplicationrequirementstext

- Both internal and external transfer students must have completed Eco 304K and L and Math 408K and L (or the equivalent) with at least a C- in each in order to declare the Economics major: http://catalog.utexas.edu/undergraduate/liberal-arts/admission-and-registration/

The Economics Department proposes to eliminate these requirements. Doing so would return the Economics Department’s requirements in order to declare an Economics major to what they were previously.

Reasons for the change

Several policies at UT-Austin interact with these requirements in ways that appear to prevent interested, qualified students from having the opportunity to attempt the Economics major. These policies have arisen since the requirements were adopted.

In adopting these requirements, the Economics Department did not seek to reduce the number of Economics majors or ration access to the Economics major for interested, qualified students. The intention was to signal to prospective Economics majors that math is essential to the study of Economics and to encourage transfer students to make an informed choice of major. These objectives remain important. However, now there are tradeoffs that did not exist at the time these requirements were adopted. The Economics Department will use other ways to emphasize the importance of math and to help transfer students confirm they are a good fit with the Economics major.

Internal transfer students. The College of Liberal Arts has a policy requiring internal transfer students to come into COLA with a declared major. Some students from other colleges who would like to internally transfer to Economics have not taken all of Eco 304K and L and Math 408K and L. They may be internally transferring fairly soon after starting at UT-Austin. Alternatively, they may not have realized they have an interest in Economics until taking Eco 304K. These students would be served best by allowing them to declare the Economics major and to be advised by the Economics advisors. For this to happen, the Economics Department must drop the requirements it now has for an internal transfer student to declare the Economics major.

External transfer students. The Economics Department would like comparable policies to apply to external and internal transfer students. We do not want UT Admissions to deny acceptance to an external transfer applicant to Economics who is as well qualified to attempt the Economics major as internal transfer students to Economics. This is an important reason for the Economics Department to drop the requirements it now has for external transfer students because UT Admissions tells us that they reject transfer applicants who do not satisfy the requirements (they do not accept them into UGS or into COLA as undeclared).

Freshmen. The Economics Department’s reasons for dropping the “calculus readiness” requirement for a freshman to start at UT-Austin as a declared Economics major are similar. Based on what UT Admissions has told us, we believe that some freshman applicants who are otherwise highly qualified and who put Economics as their first choice of major are rejected (instead of being accepted into UGS or into COLA as undeclared).
We believe that dropping the “calculus readiness” requirement for a freshman admit to start as an Economic major would result in a larger applicant pool and could raise the average level of aptitude among Economics majors.

Summary. Not all strong prospective freshmen who are interested in Economics have had the opportunity to prepare themselves to start calculus by the time they apply to UT-Austin. Also, some strong transfer students who are interested in Economics are not ready to begin upper-division course-work in Economics at the time they transfer into or within UT-Austin. If these students could be in UGS or in COLA as undeclared while completing Eco 304K and L and Math 408K and L, the requirements we propose to drop would serve their original purposes with little or no downside. There may be good reasons why UT Admissions does not accept these freshmen and why internal transfer students are required to declare a major upon transferring. However, in this case we would like to respond by rolling back the requirements for declaring an Economics major that appear in the 2016-18 and 2018-20 Undergraduate Catalogs. Outcomes within and across the pools of potential and actual freshman Economics majors and external and internal transfers into Economics, in terms of aptitude and the ultimate success of who is accepted and who is rejected, should be more consistent. Increased consistency is fairer and may raise the average level of aptitude among Economics majors.

Impact on the Economics major

The number of freshmen who start at UT-Austin as Economics majors and the number of external transfer students who declare Economics may increase. The sizes of these applicant pools likely will increase and UT Admissions now may find highly-qualified applicants who put Economics as their first choice of major and who previously would have been rejected. The Economics Department cannot forecast the quantitative impact because the number of acceptances and the composition of acceptances among colleges and majors are the purview of UT Admissions. Any realistic impact would result in a number of Economics majors that is comfortably within the recent range of the size of the major.

The number of declared Economics majors has decreased in the past few years, although so far the number of students graduating with an Economics major has not decreased as much. The Economics Department does not attribute this mainly to the requirements for declaring the Economics major that we propose to roll back. Rather, we attribute this to other policies and circumstances that have arisen at UT-Austin in recent years. These include new majors in COLA; the policy of the Math and Computer Science Departments disallowing dual degrees; availability of the TRM in Economics; the TRM in Business Foundations offered by McCombs, which (in contrast to Business Foundations previously) does not require introductory economics, and which therefore does less to expose students to economics; and Microeconomic Theory for Business (Eco 421K), which we created and offer for McCombs, and which makes dual degrees with Economics more difficult for McCombs students to complete. However, it is possible that the number of declared Economics majors will turn around due more acceptances by UT Admissions (discussed above) and to “hidden” Economics majors among internal transfer students (discussed below). To repeat, any realistic impact would result in a number of Economics majors that is comfortably within the recent range of the size of the major.

Impact on other units at UT

If UT Admissions now finds highly-qualified freshman and external transfer applicants who put Economics as their first choice of major and who previously would have been rejected, it is possible that the number of students in COLA will increase.

Within COLA, it is possible that among internal transfers, the number declaring the Economics major may increase and the number declaring other majors will decrease. Now, some internal transfers who intend to be Economics majors may declare another COLA major and then declare Economics once they have completed Eco 304K and L and Math 408K and L. Some of these “pre-Econ” students (as we have heard them describe themselves) may remain in the COLA major they declare initially when transferring internally. But, assuming most follow through with their original intention, the effects on the numbers of internal transfer students who
graduate with various COLA majors will be small. The main impacts will be that students who intend to be Economics majors will be advised by the Economics advisors and advisors in other COLA departments will not spend their time advising students who intend to move over to Economics.

Vote of the Faculty Curriculum Committee (Undergraduate Studies Committee)

On February 15, 2019, the Undergraduate Studies Committee voted unanimously in favor of the proposed change in the requirements for declaring the Economics major. The Undergraduate Studies Committee consists of the following faculty members: Valerie R. Bencivenga (Director of Undergraduate Studies and chair of the committee), Stephen Donald, Caroline D. Thomas, Gerald S. Oettinger, Svetlana Boyarchenko, Thomas E. Wiseman, and Stefano Eusepi.
ADMISSION AND REGISTRATION

Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information.

[Admission to the Economics Major]

All students who wish to major in Economics must be admitted to the University according to the procedures given in General Information.

Freshman Admission

Freshmen applicants seeking admission to the Economics degree program through the College of Liberal Arts must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available from the University Admissions Office website.

Applicants should use the ApplyTexas online application and select the Economics major option listed in the College of Liberal Arts as a first-choice major.

External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in General Information. External transfer applicants seeking admission to the Economics degree program through the College of Liberal Arts must meet the following requirements:

1. Completion of Economics 304K and 304L (or their equivalents) with a grade of at least C- in each course
2. Completion of Mathematics 408K and 408L, or Mathematics 408C and 408D, or Mathematics 408N and 408S, or an equivalent calculus sequence, with a grade of at least C- in each course

Applicants should use the ApplyTexas online application and select the Economics major option listed in the College of Liberal Arts as a first-choice major.

Internal Transfer Admission

All internal transfer applicants should use the online Economics Major Internal Transfer Application and apply by the deadline listed on the department website. Internal transfer applicants seeking admission to the Economics degree program through the College of Liberal Arts must meet the following requirements:

1. Completion of Economics 304K and 304L (or their equivalents) with a grade of at least C- in each course
2. Completion of Mathematics 408K and 408L, or Mathematics 408C and 408D, or Mathematics 408N and 408S, or an equivalent calculus sequence, with a grade of at least C- in each course]
Economics major

Proposed increase in the number of upper-division Economics electives required for the Economics major

Summary

We propose to increase the number of upper-division Economics electives required for the Economics major from 3 to 4. The number having a prerequisite of ECO 420K (Microeconomic Theory) would not increase.

This change would result in the following requirements for an Economics major:

- Introductory Microeconomics (ECO 304K) and Introductory Macroeconomics (ECO 304L)
- Two semesters of calculus consisting of M 408K and L or the equivalent. (Equivalent sequences are listed. Business calculus is not accepted.)
- Economic Statistics (ECO 329)
- Introduction to Econometrics (ECO 441K)
- Microeconomic Theory (ECO 420K)
- Macroeconomic Theory (ECO 320L)
- At least 4 upper-division Economics electives, including at least 2 with a Microeconomic Theory prerequisite

Reasons for the change are explained below. The anticipated impacts on the number of Economics majors and minors at UT-Austin and on the College of Liberal Arts and other units at UT-Austin are discussed. Votes in support of the change are documented.

Reasons

- Improve the quality of the Economics major
- Maintain competitiveness with the Economics major at other institutions

Quality of the UT-Austin Economics major

The mathematical level and analytical content of the core courses of the Economics major (ECO 329, ECO 441K, ECO 420K, and ECO 320L) are appropriate. ECO 441K (Introduction to Econometrics) now includes a one-hour “lab” in which students write a research paper. We offer a number of field courses that have a Microeconomic Theory prerequisite (and additional prerequisites in some cases). These field courses teach models that are accessible to undergraduates, and show how they are used to address fundamental questions and to analyze policies. While we are always looking for ways to improve our courses and instructional methods, overall we are satisfied with the level and content of the core courses and field courses based on a comparison with Economics major requirements at a range of other institutions (see below) and based on job market outcomes of Economics majors and acceptances of our majors into graduate programs.

However, the Economics major at UT-Austin is light in terms of the number of required courses and therefore the amount of Economics that majors learn.

The added required elective does not have a Microeconomic Theory prerequisite. This will allow and encourage students to take the added elective relatively early in their Economics major, giving them early exposure to how economists think about a range of questions. The added elective will increase student engagement and motivation for learning in the core courses and field courses, by demonstrating the power of economics to address interesting questions. The added elective also will increase the breadth of students’ knowledge and understanding. Here are some of the courses without a Microeconomic Theory prerequisite that
we have offered recently and that we plan to offer in the next academic year. We plan to increase this set as time goes on.

- ECO 370M Behavioral Economics
- ECO 330T TOPIC Social Economics: Economics Outside the Market
- ECO 330T TOPIC Economics of the European Union and the Euro
- ECO 330T TOPIC European Sovereign Debt Crisis
- ECO 325L Economics of Health
- ECO 327 Comparative Economic Systems
- ECO 323L Political Economy
- ECO 355 Development Problems and Policies in Latin America

Comparison with the Economics major at other institutions

Before adding the elective, the UT-Austin Economics major is light in terms of the number of required courses, relative to the Economics major at a range of institutions with which we could like to be compared. With the added elective, our major will compare favorably.

Here are some observations about how our Economics major with the added elective would compare to others. The first two groups are the most similar. The other groups are provided for perspective. An Excel spreadsheet with additional detail is available upon request.

Similar:

- NYU – Economics (theory). 10 courses. Identical to UT-Austin.
- NYU – Economics (policy). 10 courses. Identical to UT-Austin except one elective must be chosen from International, Urban, and Money and Banking.
- U of Wisconsin (Economics with Math Emphasis). 10 courses. Major requires three semesters of calculus but Micro Theory requires two semesters of calculus, and Econometrics requires one semester of calculus.
- UC San Diego (Economics). 10 semester courses (15 quarters). More micro (1Q Intro + 3Q Micro Theory). Q3 of Micro Theory covers game theory and other topics that are in electives at UT-Austin. Less macro (1Q intro, 1Q Macro Theory). Fewer electives (5Q).
- Washington University. 10 courses. Identical to UT-Austin except Statistics and Econometrics require one semester of calculus and Econometrics uses no textbook.

Similar to UT-Austin, lighter on math:

- UC Berkeley. 10 courses. One semester of introductory economics (micro and macro combined). One additional elective. Macro Theory does not require Micro Theory. Statistics and Econometrics do not use calculus.
- Harvard. 10 courses (including sophomore tutorial). One semester of calculus is required for the major, Micro Theory, and Econometrics. One upper-division elective with Micro Theory prerequisite.
- University of Virginia. 10 courses. Statistics and Econometrics do not require calculus.

Heavier in coursework, lighter on math:
University of Michigan. 11 courses, including 5 electives (3 with a Micro Theory prerequisite). Micro Theory and Econometrics require one semester of calculus. “Intermediate” and “advanced” tracks for Statistics and Econometrics, which require more math, are available.

Pomona. 11 courses + senior exercise. Econometrics, which is required, has a Calculus I + linear algebra prerequisite but Micro Theory requires one semester of calculus.

Heavier than UT-Austin:

- MIT. 11 courses + thesis. All majors take Mathematical Economic Modeling or Economic Research and Communication in addition to courses that UT-Austin requires.
- Princeton. 11 courses + junior independent work + thesis. Micro Theory and Econometrics require one semester of calculus (Economics major requires two semesters of calculus).

Lighter than UT-Austin:

- University of Illinois. 10 courses. Statistics and Econometrics use Anderson, Sweeney, and Williams and have no math prerequisite. No requirement that electives have a Micro Theory prerequisite.
- University of Wisconsin (Economics option). 10 courses. Micro Theory requires one semester of calculus. Econometrics is not a required course.
- Cornell University. 9 courses. Micro Theory and Econometrics require one semester of calculus.
- UC Davis. 8 2/3 courses (13 quarters). Economics major, Micro Theory, and Econometrics require 2 quarters of calculus. One quarter each of Statistics and Econometrics.
- Northwestern University. 8 2/3 courses (13 quarters). One quarter each of Statistics and Econometrics. Calculus requirement is 1-2 quarters.

Impact on Economics majors and minors

The direction of the impact on the number of Economics majors is uncertain. The number of Economics majors may increase. When students are exposed to Economics, some of them are drawn to the discipline and choose to major in it. The added required elective can be taken any time after Introduction to Microeconomics (ECO 304K). Many of our upper-division electives that have an Introduction to Microeconomics prerequisite (and for some, also an Introduction to Macroeconomics (ECO 304L) prerequisite) use basic economic models to study interesting economic questions and related policy issues. We believe some students taking these courses will decide to declare an Economics major.

On the other hand, the number of Economics majors may decrease. Some students who are considering an internal transfer to Economics may be deterred by the additional upper-division hours in Economics. However, we anticipate that this effect will be small or non-existent because such a student would be able to take an upper-division Economics elective immediately upon internally transferring or soon thereafter (because of the minimal prerequisite).

For the same reason, we anticipate the impact on time to graduation of Economics majors to be minimal or non-existent.

The number of Economics minors is likely to increase. The Economics Department plans to increase its offerings of upper-division electives with only an Introduction to Microeconomics prerequisite (or Introduction to Microeconomics and Introduction to Macroeconomics prerequisite). We anticipate that some students will find these courses to be interesting and some will decide to minor in Economics as a result.

Impact on the College of Liberal Arts and other units at UT-Austin
As discussed above, the Economics Department plans to increase its offerings of upper-division electives with only an Introduction to Microeconomics prerequisite. These courses use basic economic models to study interesting economic questions and related policy issues. We anticipate an increase in semester credit-hours in Economics taken by non-majors as a result.

Some of these electives will be attractive to other majors, including International Relations and Global Studies, Health and Society, and Sustainability Studies.

**Documentation of votes to approve the proposed change within the Department of Economics**

**Undergraduate Studies Committee (Faculty Curriculum Committee for the Economics Major)**

On February 15, 2019, the Undergraduate Studies Committee voted unanimously in favor of the proposed change. The Undergraduate Studies Committee consists of the following faculty members: Valerie R. Bencivenga (Director of Undergraduate Studies and chair of the committee), Stephen Donald, Caroline D. Thomas, Gerald S. Oettinger, Svetlana Boyarchenko, Thomas E. Wiseman, and Stefano Eusepi.

**Department of Economics voting faculty**

The Department of Economics voting faculty unanimously approved the proposed change in a vote on February 22, 2019. The voting faculty consists of Jason Abrevaya (Chair of the Department of Economics), Dan Ackerberg, V. Bhaskar, Sandra E. Black, Stephen Donald, Eugenio J. Miravete, Aysegul Sahin, David S. Sibley, Vasiliki Skreta, Daniel T. Slesnick, Dale O. Stahl, Maxwell B. Stinchcombe, Robert Town, Stephen J. Trejo, Thomas E. Wiseman, Manuela Angelucci, Svetlana Boyarchenko, Olivier Coibion, Stefano Eusepi, Brendan Kline, Leigh Linden, Andreas I. Mueller, Gerald S. Oettinger, Tom Vogl, Haiqing Xu, Jorge Balat, Saroj Bhattarai, Christoph Boehm, Marika Cabral, Michael Geruso, Andrew Glover, Sukjin Han, Dayanand Manoli, Richard Murphy, Nitya Pandalai-Nayar, Dean Spears, Caroline D. Thomas.
All economics majors must earn grades of at least C- in Mathematics 408K and 408L. The following combinations of courses alternatively satisfy the math requirement, with a grade of at least a C- in each course: Mathematics 408C and 408D, Mathematics 408N and 408S, Mathematics 408K and 408S, Mathematics 408C and 408L, Mathematics 408C and 408S, or Mathematics 408N and 408L. Mathematics 403K and 403L (and transfer equivalents) may not be substituted for the required mathematics courses.

Major

At least [28] 31 semester hours of economics, consisting of Economics 304K, 304L, 420K, 320L, 329, 341K or 441K, and [nine] twelve additional hours of upper-division coursework. At least six of the additional semester hours of upper-division coursework must be in courses for which a grade of at least C- in Economics 420K is a prerequisite. Economics 420K, 320L, 329, and 341K or 441K must be completed in residence. Economics majors must take Economics 420K at least two semesters prior to completion of the degree. All economics majors must earn a grade of at least C- in each course counted toward fulfillment of the major requirements, except Economics 329, in which a grade of at least C is required. Economics 329 with a grade of at least C is a prerequisite for Economics 420K. A minimum grade point average of at least 2.00 in all courses taken at the University and counted toward the major is also required.

No student may register for more than [40] 11 semester hours of economics in any one semester without approval of an undergraduate adviser in the Department of Economics.