January 26, 2018

To: Linda L. Neider  
   Speaker of the School Council

From: Manuel S. Santos  
   Chair, Department of Economics

Re: Proposal to Change the Economics Major for A&S Students

Dear Linda,

The proposal to modify the curriculum in the Economics Major for A&S students has been presented electronically to the faculty on January 15, 2018. The proposal presented in the attached document has been approved unanimously.

Sincerely,

Manuel S. Santos
Curriculum Change:
Economics Major for A&S Students

CONTACT PERSON
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1. **Proposed change:** We would like to increase the credit hours required in the Economics Major for A&S students from 24 to 30. We propose to include an additional *required course* (ECO 430 Applied Econometrics) and an additional *elective course*.

2. **Existing curriculum and proposed change:**

   **People and Society track**

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<thead>
<tr>
<th>Current</th>
<th>Proposed</th>
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<tbody>
<tr>
<td>Credits</td>
<td>24</td>
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<tr>
<td>Required courses</td>
<td>30</td>
</tr>
<tr>
<td>211 Micro principles</td>
<td>211 Micro principles</td>
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<tr>
<td>212 Macro principles</td>
<td>212 Macro principles</td>
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<tr>
<td>300 or 302 Micro theory</td>
<td>300 or 302 Micro theory</td>
</tr>
<tr>
<td>303 Macro theory</td>
<td>301 Macro theory, writing credit course (only for A&amp;S)</td>
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<tr>
<td>Electives</td>
<td>4 courses (at most 2 STEM courses)</td>
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<tr>
<td>5 courses (students that have taken ECO 302 can take at most 2 STEM courses; students that have taken ECO 300 can take at most 3 STEM courses)</td>
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   **STEM track**

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<tr>
<td>Electives</td>
<td>4 STEM courses</td>
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<td>5 courses (at most 1 P&amp;S course)</td>
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3. **Effective date:** Fall 2018.

4. **Discuss impact (if any) on faculty resources:** None.

5. **Reason for change:** We would like to make the Economics Major for A&S students more rigorous increasing the credit hours required to bring it closer to the average A&S major. In addition, we would like to incorporate econometrics as a requirement to better equip our students for their future plans.
6. Benchmarking

The overwhelming majority of peer and aspirational institutions that offer Economics majors for Arts & Sciences students have at least one econometrics class as a required course. This is the case both in institutions in which the Department of Economics is part of the School of Business and institutions in which it is part of the College of Arts and Sciences.

Some universities that require an econometrics course for the Economics major:

- UC Berkeley (https://www.econ.berkeley.edu/undergrad/current/major-requirements)
- Emory (http://economics.emory.edu/home/undergraduate/major_minor_requirements.html)
- Florida State (https://coss.fsu.edu/economics/node/3)
- Washington University in St. Louis (https://economics.wustl.edu/undergraduate/major/major-requirements)
- Yale (https://economics.yale.edu/undergraduate/courses/course-requirements-econ)
- Northwestern (https://www.economics.northwestern.edu/undergraduate/major/)
- Boston College (https://www.bc.edu/bc-web/schools/mcas/departments/economics/undergraduate/major-in-economics.html)
- Indiana (https://college.indiana.edu/academics/degrees-majors/major-guides/economics-ba.html)
- New York University (http://cas.nyu.edu/academic-programs/bulletin/departments-and-programs/department-of-economics/program-of-study-cas-bulletin.html#major)
- Notre Dame (https://economics.nd.edu/undergraduate-program/academic-programs/economics-major/)
- Georgetown (https://econ.georgetown.edu/undergraduate/major)
- University of Southern California (http://dornsife.usc.edu/econ/ba-economics/)
- Virginia (http://economics.virginia.edu/major)
- University of North Carolina (http://catalog.unc.edu/undergraduate/programs-study/economics-major-ba/#requirementstext)
- Cornell (https://economics.cornell.edu/major#requirements)

It should be noted that all of the aforementioned links point to Bachelor of Arts programs; Bachelor of Science programs require even more econometrics courses (or at least the same ones).

7. Learning outcomes and job opportunities

Econometrics is the key quantitative method used in economics. The ability to work with data and perform econometric analysis is extremely valuable in the job market; the most popular jobs for graduates with a degree in Economics (market research analyst, economic consultant, compensation and benefits manager, credit analyst,
among others)\textsuperscript{1} require skills that would be acquired in an econometrics course. Most Masters and Ph.D. programs in Economics have three course sequences for the first year: Microeconomics, Macroeconomics, and Econometrics; this fact suggests the importance that econometrics plays in our field. Leading econometricians Joshua Angrist and Jörn-Steffen Pischke put it very clearly in their Undergraduate Econometrics Instruction paper:

Causal questions and research design (...) are now much in demand: Google and Netflix post positions flagged by keywords like causal inference, experimental design, and advertising effectiveness; Facebook’s data science team focuses on randomized controlled trials and causal inference; Amazon offers prospective employees a reduced form/causal/program evaluation track.\textsuperscript{2}

Additionally, the completion of ECO 430 Applied Econometrics will allow students to be able to understand much of the empirical literature in economics, to work with econometric software, and to conduct independent research projects in their areas of interest. In short, we are convinced that requiring an econometrics class is the correct step both from a purely academic perspective and also with a focus on several employment outcomes: average salaries, internships, and students with an offer within months of graduation.

Miguel Iraola and Esteban Petruzzello
Department of Economics
Miami Business School
