Frequently Asked Questions about the
Economics Concentration

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I'm a freshman thinking about concentrating in Ec. What should I take this year?

If you're interested in an Ec concentration or secondary, we highly recommend taking Ec 10ab freshman year. We also recommend fulfilling the stats requirement freshman year (Stat 100, 104, 110, AM 101, or Math 154) and the basic math requirement (see below for details).

I got a 5 on the AP Micro and Macro exams. Should I skip Ec 10ab?

A score of 5 on either or both of the AP Micro and Macro exams allows you to skip the corresponding semester of Ec 10ab (Ec 10a is micro, Ec 10b is macro) and go into the 1010/1011 series. However, if you're not comfortable with the material, you are welcome to take all or part of Ec 10ab. (Note that you must take two additional Ec electives to make up for skipping Ec 10ab, if you become an Ec concentrator.)

How much math is in Ec 10ab?

Ec 10ab uses only basic algebra; no calculus.

What is the Ec math requirement, and can I place out of it?

All Ec concentrators have to take Math 1a. You can place out of this by (i) placing into Math 1b or higher on the Harvard Math Placement Exam or (ii) receiving a score of 5 on the AB or BC calculus AP exam. Ec concentrators pursuing Ec honors have to take Math 1b plus one of Math 18/21a/AM21a. You can place out of Math 1b by placing into Math 18 or higher on the Harvard Math Placement exam. There is no placing out of Math 18/21a/AM21a.

What's the difference between Ec 1010a/1011a and Ec 1010b/1011b?

Intermediate Micro Theory (1010a) and Intermediate Macro Theory (1010b) require knowledge of single variable calc (i.e., Math 1a). Ec 1011ab require knowledge of multivariable calc (i.e., Math 18/21a/AM 21a).

The choice is up to you. You are also allowed to take one semester on one track and one semester on the other track. For example, if you take 1010a and decide you want more of a challenge, you can take 1011b.

If you are interested in pursuing an economics PhD at some point, we encourage you to take the 1011 track; it will better prepare you for a PhD program and give you a taste of upper level economic theory. (If you don't like 1011, you probably won't like an Ec PhD program!) We also encourage you to take the 1011 sequence if you are considering the AM/Ec concentration.

What's the difference between Stat 100, 104, 110, AM 101, Math 154?

Stat 100 and 104 are similar, but Stat 104 covers more material at a slightly faster pace and uses economics applications. Stat 110 is focused on probability theory and is great for students interested in theory. AM 101 is more advanced than Stat 104 and requires linear algebra. Math 154 is more advanced than Stat 110 and

requires multivariable calculus and linear algebra. Note: Only one of Statistics 100, 104, 110/Applied Math 101/Math 154 can count towards a student's Economics concentration requirements (or secondary field).

What's the difference between Econ 1123 and 1126?

Ec 1123 is an introductory econometrics course focused on understanding and carrying out empirical work in economics using regression analysis. It most naturally follows Stat 104. Ec 1126 has a more theoretical emphasis on learning and understanding econometrics and most naturally follows Stat 110. Your choice depends on your goals as an undergrad. For example, if you hope to write a senior thesis involving data analysis, Ec 1123 might be a better choice. If you're really interested in math and stats and understanding the details *behind* empirical analyses, Ec 1126 might be a better choice. Students who are very interested in analyzing data or are considering grad school might consider taking both! For such students, Stat 186 is another interesting course to build up your econometrics tool kit.

What's the difference between Math 18, Math 21a, and AM 21a?

They are similar and all focus on multivariable calculus. Math 18 covers the topics from Math 21a that are most useful for the social sciences. AM 21a is similar to Math 21a, but with some engineering applications.

What's the difference between concentrating in Ec vs. AM/Ec?

This is mainly about personal preference. Not surprisingly, Ec concentration requirements have more Ec classes and fewer Math classes and AM/Ec concentration requirements have more Math classes and fewer Ec classes. So, if you like Ec but you really want to study Math deeply, AM/Ec might make more sense. If you want to focus on Ec classes and aren't sure if you want to study mathematics beyond calculus, then Ec might make more sense. Of course, as an AM/Ec concentrator, you can choose to take more Ec electives, and as an Ec concentrator, you can choose to take more Math classes. So, the difference can be minimal. If you are thinking about grad school in Ec, you will need to study mathematics beyond calculus (linear algebra, differential equations, real analysis). You can do that as an Ec or AM/Ec concentrator.

Where can I get more info about Ec?

Check out our website for tons of useful info: http://economics.harvard.edu/pages/undergraduate