## Northwestern

This document describes the degree requirements for students graduating in Academic Year 2016-17 or earlier. Students entering Northwestern as an undergraduate prior to Fall Quarter 2017, and graduating in Academic Year 2017-18 or later, can elect to follow the degree requirements listed below or follow the new degree requirements listed at: http://www.economics.northwestern.edu/undergraduate/degree/ba-ma.html The new requirements apply to all students entering Northwestern as an undergraduate student in Fall Quarter 2017 or later.

## Four Year-BA/MA Program

The program gives outstanding, qualified undergraduate majors an opportunity to earn both a Bachelor of Arts degree from the College and a Master of Arts degree from The Graduate School in four years. Because the program is very demanding, it is open only by invitation, and admission is highly selective. Interested students should talk with the Director of Undergraduate Studies early in their careers at Northwestern. The program provides excellent preparation for further graduate study in economics or for professional positions in economic research.

Although application to the program does not occur until the spring of the junior year, a candidate must carefully plan the first three years of undergraduate study in order to qualify for consideration. The following conditions must normally be met by the end of the candidate's junior year.

- An exceptionally high grade point average (at least 3.6) in economics and other courses.
- Completion of all WCAS requirements, except the 45 units of course work (normally 36 units will have been completed).
- Completion of all requirements for the undergraduate major in economics.
- Completion of Economics 381-1,2 Econometrics.
- Appropriate preparation in mathematics, normally Mathematics 220 plus 224 \& 230, 234 Multiple Integration and Vector Calculus, 240 Linear Algebra, and 250 Elementary Differential Equations. A rigorous preparation in real analysis is strongly recommended. The first two classes of the Mathematics 320 Real Analysis sequence would be best, but if that's not possible, Mathematics 300 Foundations of Higher Mathematics might be sufficient.

In the fourth (senior) year, the candidate must satisfy The Graduate School's requirements of three quarters of full-time graduate study, which consist of at least three, but no more than four, courses each quarter bearing graduate credit. Graduate-credit courses are those listed by The Graduate School; they include most courses at the 300 level and above. The following departmental requirements must be completed for the master's degree:

- Economics 410-1 Microeconomics.
- Economics 411-1 Macroeconomics.
- One course in economic history or economic development from the following list: 315, 323-1, 323-2, 324, 325, 326, 420-1, 420-2.
* Four appropriate graduate-level economics courses to be selected in consultation with, and approved by, the Director of Undergraduate Studies. At least one of these must be at the 400 level (but not 499); a second should be 499, Independent Study, in which research for the master's thesis (see below) is pursued. The remaining two may be either 300 -level or 400 -level courses.
- A master's thesis, which must be an original piece of economic research of journalarticle length. The thesis must be submitted no later than four weeks before the end of the spring quarter and found acceptable by two graduate faculty readers. A final oral examination on the thesis is conducted by the faculty readers.
- Economics 410-1 and 411-1 are normally taken in the fall quarter of the fourth year.
- The Economics Department offers an intensive, four--week mathematics course, (Economics 401 Mathematical Methods of Economic Theory) immediately prior to the Fall Quarter, which provides the proper mathematical background for new graduate students before they are immersed in their first-year economics courses. The course is of significant benefit to all students, addressing topics even mathematics majors may not have seen. The topics include linear algebra, multivariate calculus, convexity, constrained optimization, and some dynamics. This non-credit course is required for BA/MA candidates.
- An average grade of $B(3.0)$ is required in courses taken for the MA degree, and candidates must have no incomplete grades on their records.
- In 1998 the WCAS Committee on Superior Students and Honors ruled that a BA/MA candidate must complete a special project for honors, as well as a master's thesis, in order to graduate with undergraduate honors and with the BA/MA.

Undergraduates interested in this program should consult the Director of Undergraduate Studies early in their studies, certainly no later than the fall quarter of the junior year.

After obtaining the approval of the Director of Undergraduate Studies, students submit a formal application to enter the program to The Graduate School.

