

How Our Curriculum Addresses Our Pedagogical Goals

We believe that the achievement of our specific proficiency goals for majors and non-majors (undertaking research and communicate the results) is gained gradually through the achievement of intermediate research and study skills gained as the student ascends through the curriculum. Below we identify these intermediate skills. Note that our list is a modified version of that published by Lee Hansen in “What Knowledge Is Most Worth Knowing - For Economics Majors?,” *AEA Papers and Proceedings*, May 1986, 149-152. As in Hansen’s article, these skills are listed in ascending order of complexity. After presenting this list we consider how these skills are imparted by courses at different levels in our curriculum.

1. Intermediate Research and Study Skills (a modified Hansen list)

A comprehensive and successful economic education, one that permits the conduct and communication of economic research, must first enable a student to:

- a.) Gain access to existing knowledge: locate published research, information on particular topics and issues, search out economic data and information about the meaning of data.
- b.) Display command of existing knowledge: summarize knowledge of some economic condition, ideas of some economist, a controversy in economic literature, a policy issue. This can occur at a variety of levels of sophistication ranging from understanding newspaper articles on economic events to interpreting equations and regression results in published articles.
- c.) Draw out existing knowledge: being able to articulate economic principles used in various economic analyses (ranging from, say, an article in the *Wall St. Journal* to a relatively accessible academic publication). Using primary data (e.g., a World Bank publication) to evaluate basic economic relationships such as the question of whether real interest rates in India are positive.
- d.) Utilize existing knowledge to explore issues: written or oral analysis of a current economic problem with original conclusions on a relevant course of action or policy.
- e.) Create new knowledge: identify or formulate a question or set of questions about an economic issue that will facilitate investigation; prepare a 5-page proposal for a research project; research study with results (ranging from simple statistical analysis to regression results) in a 20-page paper, often accompanied by a half hour oral presentation.

2. How Economics Courses Try to Impart These Skills (by course level)

The Introductory Course

The Econ 111 course seeks to acquaint students with

1. Basic economic theory (including disagreements)
2. Economic institutions, most often in the U.S. and sometimes in other societies
3. How economic theory is used in important policy debates

To accomplish these goals

- a. We expect students to access knowledge at a relatively simple level. For example, looking up relevant numbers in the tables of the *Economic Report of the President*.
- b. To display their command of knowledge at this level, students answer short problems on algebraic and graphical relationships, economic terminology and basic relationships. In addition, they might write a one-page paper discussing an economic policy issue or make a five minute oral presentation (individually or as a small group) of an economic policy issue.
- c. Drawing out of knowledge occurs at a relatively simple level. For example, looking up economic data to assess the validity of an economic relationship, such as a supply shock. Students might be asked to compare real oil prices and rates of inflation during the 1970's.

Lower-200 level courses

Lower 200-level courses seek to

1. Provide more detailed institutional knowledge about a particular area of economic inquiry;
2. Deepen students' understanding of basic economic theories through application to "real world" problems and policy debates;
3. Convey a sense of how economists use empirical evidence to assess theories;
4. Deepen students' ability to use economic theory to evaluate arguments in policy debates
5. Require students to express economic concepts in writing
6. Require formal and informal work on oral expression both individually and in groups

To accomplish these goals

- a. At this level we expect students to be able to independently gain access to various types of economic knowledge. For example, they might be expected to find a series of articles in periodicals (e.g., *The Wall St. Journal*, *Business Week*) relevant to an economic issue, or to locate and download a short data series in a basic source like the *Survey of Current Business*, *International Financial Statistics*, or the tables in the *Economic Report of the President*.
- b. To display their command of knowledge at this level, students might, for example, write a 300 word policy memo to the Federal Reserve Board, make a five-minute oral presentation on the historical legislation underlying affirmative action and its relationship to the current debate.
- c. At this level we expect students to show some ability to draw out economic knowledge. They might, for example, be asked to articulate economic principles which underlie articles in the *Wall St. Journal* or a publication of the U.S. International Trade Commission relevant to the area of the course. They might write a five-page paper focused on a specific economic issue (e.g., labor market discrimination) where they would be expected to articulate some underlying economic theory and present some relevant data.

Intermediate theory courses

These courses work hard on developing analytical skills: to help students reason with equations and graphs in a manner that conveys economic meaning, to familiarize them with more advanced theoretical models, to enable students to use those models in analyzing economic events and policy proposals. In these courses

- a. Access to knowledge is not emphasized at this level, but some exercises do require search for data in basic sources such as the *Economic Report of the President*.
- b. Here the command of knowledge includes articulation of basic micro and macro theory thorough simple equations and graphs. Students are required to do numerous graphical and algebraic problems and to explain the accompanying logic in one-paragraph statements.
- c. In addition, students should be able to answer questions which require them to draw out the economic theory underlying articles in the business press and analyze the relationship between economic data series and underlying economic theories, e.g., comparing the rate of inflation with

the rate of growth of M1 over the 1980's to assess the relevance of the quantity theory of money.

Methods Courses

These courses undertake in-depth examination of methods economists use for theoretical and/or empirical analysis. Like the theory courses, they work on analytical skills, but also emphasize writing and (formal or informal) oral expression. In the methods courses:

- a. Considerably more sophisticated access to knowledge at appropriate level is expected. In econometrics, for example, students are required to locate data series that allow them to provide appropriate evidence relevant to a research topic.
- b. Extend command of knowledge and drawing out of knowledge relevant to the particular course. In Econometrics read and interpret regression results. For Accounting understand a financial statement of a major corporation. For History of Thought be able to articulate the economic principles of a major economist in a 5 page essay. For Game Theory develop a game theoretic model of a real world situation.
- c. Create new knowledge. In Econometrics students are required to undertake a research project of their own choosing, using data found or collected by them, and to write up the results in a 10 - 20 page well-written and convincingly analyzed paper.

Senior Seminars

Seminars are intended to achieve several important goals for Economics majors:

1. Expose students to "current state of economic thinking" regarding a particular subject area;
2. Give students practice at undertaking independent research, applying intermediate-level economic theory to "real world" issues and bringing empirical evidence to bear on theoretical arguments;
3. Develop students' abilities in quantitative reasoning and their abilities to convey arguments effectively in writing;
4. Provide formal and informal practice in oral presentation, both individually and in groups.

Seminar work relates to the intermediate study and research goals by requiring students to:

- a. Access information: Locate primary economic data (e.g. wage and employment publications of the Bureau of Labor Statistics) and journal articles or other publications relevant to research topic.
- b. Display command of knowledge: Be able to summarize theoretical and quantitative arguments by economists in published articles. Conduct a short review of a theoretical or policy debate relevant to a research paper and present it in the introductory sections of a 20 page research paper.
- c. Draw out knowledge: be able to articulate the economic principles underlying arguments (theoretical and quantitative) of various economists in a five page paper or as part of a 20 page paper.
- d. Utilize knowledge: Research papers often includes policy analysis and recommendations that are supported by the students' work.
- e. New knowledge: Use some statistical analysis (regressions for those with econometrics) in research papers which sheds new light on the topic of analysis. Articulate a position on the relevant theoretical and/or policy issues on the basis of one=s statistical analysis.