

Course Tag Reflection Exemplar Scientific Inquiry & Research Skills

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ECN 522: Econometric Methods

Identify the course learning objectives in the syllabus that are clearly aligned to Scientific Inquiry & Research Skills and respective assignment(s).

The syllabus contains three course learning objectives that are clearly aligned to the competency "Scientific Inquiry and Research Skills."

1. Learn about fundamental theories in statistics and econometrics about estimation, hypothesis testing, and forecasting.
2. Learn how to apply the theories to study economic problems, such as evaluating the return of education, identifying discrimination, and forecasting the GDP growth rate.
3. Learn about statistic software and implement it with real-world data sets.

The first objective prepares students with theoretical backgrounds in statistics and econometrics. The second objective shows students how to understand some real-world economic problems from the econometric perspectives and use appropriate econometric tools. The third objective is to teach students about the commonly used statistic software.

Explain the connection between specific assignment(s) and Scientific Inquiry & Research Skills. At least 30% of the course grade must engage students in the selected competency for the course to be tagged.

This course has weekly assignments closely connected to the competency "Scientific Inquiry & Research Skills." For example,

1. Assignments 1-2: Require students to review some basic knowledge in statistics such as linear algebra, the Law of Large Numbers, and Central Limit Theory.
2. Assignments 3-5: Practice students' understanding and implementation of linear regression, which is the fundamental statistical and econometric analysis tool.
3. Assignments 6-8: Require students to analyze real-world data sets with linear regression and its appropriate variants in different contexts.

The midterm and final exams closely relate to the assignments and test students about understanding and implementation of linear regressions. 100% of the grade relates to this competency.

Describe in detail the instructional strategies faculty use to intentionally teach Scientific Inquiry & Research Skills in the course.

First, faculty hold in-class lectures that present and explain statistic and econometric theories. Also, the faculty illustrates the theory with examples and data sets. Students are encouraged to ask questions and discuss the topics.

Second, students are required to write their summaries of key material in each textbook chapter and finish a weekly report together with the problem sets.

Third, students are encouraged to present their summaries and research projects. Students get feedback after each problem set and at the course's end.

Describe the feedback tool(s) faculty use to support students' competency development on Scientific Inquiry & Research Skills.

First, faculty give direct verbal feedback on students' engagement with the lectures and textbooks. Faculty also hold one-on-one meetings during office hours depending on students' requests to solve their problems.

Second, faculty and teaching assistants give written feedback about each problem set and discuss with students about their performance in the exams.

Third, students are encouraged to participate in a mid-term evaluation of the course. Accordingly, faculty will adjust the teaching materials depending on students' feedback.