

GUIDELINES FOR GRADING UNDERGRADUATE WORK IN ECONOMICS

The departmental average for economics majors is computed as a weighted average of grades earned on students' coursework and independent research work. The weights are 55% to grades in our eight departmental courses, 15% to the junior independent work grade, 25% to the senior thesis grade and 5% to the senior comprehensive exam grade. Since there is a commonality of research methods used in independent research work, the department has articulated common expectations for this work. Departmental courses vary substantially in content and methodology, thus grading guidelines for coursework will be more decentralized at the individual faculty level. Expectations for junior independent work, senior thesis, and coursework are outlined below.

1. Junior Independent Research (JIW)

The objective of the JIW program in the Economics department is to train our students in the art and science of how to do research in economics in general, and how to write a senior thesis in particular. It is designed to be a highly structured, yearlong experience with the following, transparent expectations. The overall grade assigned to the JIW is a weighted average of the grades received for the prospectus and the final paper.

1.1 JIW Prospectus

Criteria for Grading

The prospectus can be thought of as falling above, below, or on an imaginary line in the grading scale. In general, prospectuses that meet the top five of our criteria will receive grades above the line (A+, A, or A-). Those that don't meet these five criteria will receive grades below the line (regardless of how well they fulfill the other criteria). Those that meet some but not all of the top five criteria will probably fall on the line (B+). See the following page for a detailed grading rubric.

1. Innovation. Demonstration of insight and independence of thought or approach, whether in terms of the question or problem posed, the methodology specified, or (for empirical projects) the data to be analyzed.

2. Question or Problem. A well-defined question or problem that requires economic analysis and that's motivated (in terms of the economics/finance literature and/or the proposed methodology), feasible (in terms of the available data for empirical projects, and the mathematical and computational methods for theoretical projects), and presented explicitly and early in the document.

3. Methodology. A well-developed empirical approach or a theoretical modeling strategy that can informatively address the question or problem is required. For empirical projects, this means (1) a clear statement of the hypothesis or hypotheses to be tested, and (2) the identification and justification of the statistical and econometric technique to be used (for example, Linear or Probit regression analysis). For theoretical projects, this means (1) a tentative but essentially complete statement of the structure of the model, (2) a clear statement of the solution methods that will be used (for example, closed-form analytical or numerical solutions), (3) preferably, some preliminary results, and (4) a statement of ways in which the model will be developed and refined in the following semester.

4. Data. Empirical projects require well-chosen data that are appropriate to the question or problem and are readily available.

5. Structure. A visible, easy-to-follow structure consistent with the conventions of economics is expected.

6. Literature Review. This review should situate the project within the existing academic literature. It is not an attempt to exhaustively cite the literature but rather to establish a link between the question/problem and the existing literature in economics/finance.

7. Expected or Preliminary Results. This should include (1) discussion of the outcomes, or results, that the author anticipates, (2) a brief explanation of the reasons for the expectation, whether economic intuition or the findings of related previous research, and (3) the discussion of possible pitfalls and thoughts about further research.

8. Style. The writing should be lucid with informative, readable sentences; well-defined key terms and concepts; appropriate gauging of readers' knowledge; presentation of sufficient context; clear and concise writing.

9. Source citations. The proper and consistent use of a citation style found in the economics/finance literature—for example, the APA style or the style used in the *American Economic Review*.

Grading Rubric

A+ An A+ prospectus meets all of the criteria and could lead to a publishable paper in an Economics or Finance journal.

A range A prospectus in the A range fully meets the top five criteria and is competent with respect to the other four.

B range A prospectus in the B range is problematic in terms of any of the top five criteria (e.g., has a well-defined question/problem but a poorly rationalized methodology or an imprecise question/problem but a well-chosen data set and promising methodology) and is competent with respect to the other four.

C range A prospectus in the C range is faulty in terms of any of the top five criteria and may be less than competent with respect to the other four.

D A D prospectus is deficient in most of the criteria and adds nothing to one's understanding of the subject beyond what might be gleaned from superficial reading in the area. Even a D prospectus, however, must demonstrate that the writer has some knowledge and understanding of the economic issues.

F An F prospectus is similar to a D prospectus but is less than half the expected length and/or fails to bring economic tools to bear on the problem.

The expected length of a junior prospectus is ten pages (excluding the bibliography).

1.2 Final JIW Paper

Criteria for Grading

A junior paper (JP) can be thought of as falling above, below, or on an imaginary line in the grading scale. In general, independent work that meets the top 4 criteria below will receive grades above the line (A+, A, or A-). Those that don't meet these 4 criteria will receive grades below the line (regardless of how well they fulfill the other criteria). Those that meet some but not all of the top 4 criteria will probably fall on the line (B+). See the next page for a detailed grading rubric.

1. Innovation. Demonstration of insight and independence of thought or approach, whether in terms of the question or problem posed, the methodology specified, or the results.

2. Question or Problem. A well-defined question or problem that requires economic analysis and that is motivated (in terms of the economics/finance literature and/or the proposed methodology), feasible (in terms of the available data for empirical projects, and the available mathematical and computational methods for theoretical projects), and presented explicitly and early in the document.

3. Methodology. A well-developed empirical approach or a theoretical modeling strategy that can informatively address the question or problem is required. For empirical projects, this means (1) a clear statement of the hypothesis or hypotheses, (2) a detailed characterization of the data set and why it was chosen, (3) the identification and justification of the statistical and econometric technique used (for example, Linear or Probit regression analysis), (4) careful and thorough implementation of the technique, and (5) review and discussion of applicable test statistics. For theoretical projects, this means (1) a complete statement of the structure of the model, (2) justification of solution methods (for example, closed-form analytical or numerical solutions), and (3) solution of the model.

4. Results. An explicit statement and discussion of the new results emerging from the project and their relevance to economics and/or finance. This discussion should also include a discussion of (1) how the results relate to economic intuition and/or the findings of related previous research, (2) possible limitations of the results, and (3) directions for further research.

5. Structure. A visible, easy-to-follow structure consistent with the conventions of economics. A reader can easily identify sections that typically occur in papers in the economics/finance literature, such as Title, Abstract, Introduction, Literature Review, Methodology, Results, Conclusion, and References.

6. Literature Review. The situating of the question or problem in the literature—it is not an attempt to exhaustively cite the literature, but rather to establish a link between the question/problem and the existing literature in economics/finance.

7. Style. Lucid, informative, readable sentences; well-defined key terms and concepts; appropriate gauging of readers' knowledge; presentation of sufficient context; clear and concise writing.

8. Source Citations. The proper and consistent use of a citation style found in the economics/finance literature—for example, the APA style or the style used in the *American Economic Review*.

In general, the same criteria apply to junior papers and senior theses. When assessing independent work in terms of innovation, sophistication and completeness, JP advisors should take into account that juniors have significantly less time to work on their papers and taken fewer Economics courses than seniors.

JIW Grading Rubric

A+ An A+ JIW meets all of the criteria and makes a significant contribution to the Economics/Finance literature.

A range A JIW in the A to A- range fully meets the top four criteria and is competent with respect to the other four.

B range A JIW in the B range is problematic in terms of any of the top four criteria (e.g., has a well-defined question/problem but a poorly rationalized methodology and inconclusive analysis, or an imprecise question/problem but an interesting set of results derived with appropriate methodology, or a competent analysis of a well-defined question but with only limited new insight or limited applicability) and is competent with respect to the other four criteria.

C range A JIW in the C range is faulty in terms of any of the top four criteria and may be less than competent with respect to the other four.

D A D JIW is deficient in most of the criteria and adds nothing to one's understanding of the subject beyond what might be gleaned from superficial reading in the area. Even a D independent research project, however, must demonstrate that the writer has some knowledge and understanding of the economic issues.

F An F JIW is similar to D work in that it fails to meet most criteria. A failing grade indicates that the student did not research the subject at all adequately and/or fails to bring economic tools to bear on the problem.

Juniors are asked to stay within the recommended page limits for their JIW (25-35 pages) and to follow formal requirements specified in the memos on independent work. The page limits do not include bibliographies and appendices.

For practical purposes faculty advisors assign between 1 and 100 points to the prospectus and final JIW.

Grade	A+	A	A-	B+	B	B-	C+	C	C-	D	F
Points	97-100	93-96	90-92	87-89	83-86	80-82	77-79	73-76	70-72	60-69	<60

2 Senior Thesis

2.1 Grading Rubric

A+ (97-100) The thesis either (1) fully meets most of the criteria listed above in Section 1.2 and has no major deficiencies or (2) has some deficiencies but makes a novel contribution to Economics/Finance literature. An A+ senior thesis is a paper that with some additional work could lead to a publication in a field journal.

A- to A (90-96) The thesis is adequate or better than adequate with respect to the above criteria. An A thesis is one that could represent work that is beyond what an undergraduate might reasonably expect to complete with nine solid months of work. In contrast, an A- thesis is one that exactly meets expectation. Not novel enough to qualify as publishable research but reveals the authors' command on various economic/econometric methods important for conducting such research.

B- to B+ (80-89) The thesis represents good, solid work despite some significant deficiencies.

C- to C+ (70-79) The thesis has major flaws and represents work that is significantly below what is expected.

D (60-69) The thesis reveals virtually no command of economic ideas and tools.

F (0-59) The thesis is unacceptable either as economic analysis or as an essay.

2.2 Second Reader Committee

The department relies on a Second Reader Committee consisting of approximately ten faculty members to ensure consistency of grading across senior theses. The primary advisor and a second reader from this senior thesis committee evaluate each senior thesis. Each reader provides a written assessment and assigns the thesis a number grade between 0 and 100. (The scale is 97-100 A+, 93-96 A, 90-92 A-, 87-89 B+, 83-86 B, 80-82 B-, 77-79 C+, 73-76 C, 70-72 C-, 60-69 D, below 60 F). If the two readers' grades are within 6 points of each other, then the final grade is the weighted average with 1/3 weight to the advisor and 2/3 weight to the committee reader. If the two readers are 7 or more points apart, then the committee resolves the conflict.

3. Departmental Course Work

Economics majors must complete, on a graded basis, four pre-requisite courses, three core courses and five elective courses. The pre-requisite courses are Introductory Microeconomics (ECO 100), Introductory Macroeconomics (ECO 101), Multivariate Calculus (MAT 175), and Statistics (ECO 202). The core courses are Microeconomics (ECO 300 or 310), Macroeconomics (ECO 301 or 302), and Econometrics (ECO 302 or 312). In addition, our majors can choose any five departmental courses from a

large list of economics electives. Up to two of these electives can be cognates (which are pre-approved upper level courses from other departments). These courses vary significantly in terms of methodology, level of difficulty, class size, and student self-selection. Thus, uniform departmental standards for coursework (similar to the JIW or senior thesis standards) are neither fair nor feasible. In lieu of dictating such standards, the department has adopted the following principles to promote fairness in grading undergraduate Economics coursework:

- 1) The department has initiated and will continue an internal conversation about grading practices among affected stakeholders. Thus far, it has organized two faculty meetings as well as a meeting with undergraduate student liaison committee representatives to solicit feedback and discuss the grading of undergraduate courses. Visiting faculty members teaching undergraduate courses or advising independent research are also notified of our grading guidelines.
- 2) It will be the right and responsibility of individual faculty members teaching a course to define course-specific standards of excellence for their own course and to clearly articulate their expectations to the students in their syllabi at the start of each semester. Indeed, there will be increased onus on faculty members to state clearly from the outset what a student has to do to meet or exceed course requirements.
- 3) To provide some frame of reference, and to further understanding of how the department has operationalized these definitions in the past, experienced faculty members were asked to share examples of syllabi with detailed criterion and grading standards that they have used. Copies of the department's Junior Independent Work and Senior Thesis handbooks are also available to serve as examples of how to break down written work into manageable deliverables and how to schedule timely feedback on written work.
- 4) New faculty teaching courses with large enrolments and multiple preceptors will also be advised of best practices that are already being used by our more experienced instructors to ensure consistency in grading within a course. Examples of these practices include:
 - Appointment of a head graduate preceptor to coordinate grading across sections, and
 - Asking each graduate preceptor or undergraduate course assistant to grade the same question across all students enrolled in the course to maintain fairness in grading.
- 5) Finally, the department will continue to internally review its grading history on a regular basis to ensure consistency with its promulgated assessment and grading standards.