

October, 2007

ACCOUNTING DOCTORAL PROGRAM AT THE UNIVERSITY OF ARIZONA

INTRODUCTION

Welcome to the University of Arizona Accounting Doctoral Program!

Our goal is to prepare you to excel as an accounting researcher/educator. Graduates have been placed at excellent universities including BYU, Chicago, Florida, Illinois, Notre Dame, Ohio State, Oregon, Rice, Rochester, Southern California, Texas at Austin, and Wisconsin. Our expectation is that, as you near completion of the program, you will generate employment offers from comparable institutions. To meet this expectation, you must acquire the intellectual skills that are necessary to design, execute, and report “cutting-edge” research on substantive accounting issues. The primary evidence of such skill acquisition will be your dissertation project. When you enter the academic job market, decision-makers at other universities will place a significant weight on the perceived quality of your dissertation project, as reported in a working paper that you will prepare and present to the faculty here. Other evidence includes a joint research project with faculty. Beyond your skills in conducting research, you also must develop into an effective teacher. Throughout the program, our faculty will be ready to support your efforts and applaud your successes.

OVERVIEW OF ACCOUNTING RESEARCH

Accounting research may be classified on three dimensions: substantive area, method, and source discipline. The key substantive areas are managerial accounting, financial accounting, auditing, and tax. The typical research methods are mathematical modeling, archival data analysis, and experimental data analysis. The common source disciplines are economics, finance, management, and psychology. Most accounting researchers focus on issues in one substantive area (which normally coincides with their teaching specialty), employ one type of empirical or analytical method, and rely on the literature from one or more source disciplines.

Relative to undergraduate or masters’ programs, you will find that the doctoral program involves much more interaction between the student and faculty, especially in the dissertation stage. A natural outcome of such interaction is that the student’s research focus overlaps significantly with that of one or more faculty members. An advantage of such overlap is that it increases the degree of support that the faculty can provide as you develop your dissertation. Accordingly, as you plan your coursework and clarify your research focus, it is important to consider the research approaches of current faculty. However, it is not enough for students to re-trace and modestly extend the past efforts of faculty. New and experienced researchers alike are held to the high standard of doing *original* research that makes a *significant* contribution to the literature.

Table 1 shows a taxonomy of accounting research and the primary research approach of current tenure-track faculty: Dan Bens (DB), Mei Cheng (MC), Dan Dhaliwal (DD), Leslie Eldenburg (LE), Bill Felix (BF), Ted Goodman (TG), Oliver Li (OL), Jeff Schatzberg (JS), Bill Schwartz (BS), Monica Stefanescu (MS), Mark Trombley (MT), and Bill Waller (BW).

TABLE 1. Taxonomy of Accounting Research.

Substantive Area	Archival Method	Experimental Method	
	Economics/Finance	Economics	Psychology
Managerial Accounting	LE	BW	BW
Financial Accounting	DB, MC, DD, TG, BS, MS, MT		
Auditing	BF	JS, BW	BF, BW
Tax/Financial	DD, OL		

Table 1 suggests the following options for your primary research approach:

- [A] financial accounting + archival method
- [B] tax + archival method
- [C] managerial accounting + archival method
- [D] managerial accounting + experimental method
- [E] auditing + archival method
- [F] auditing + experimental method

In presenting the above classification of accounting research, we do not intend to stifle “out of the box” thinking by doctoral students. On the contrary, innovation often involves an integration of previously disparate approaches. Before conducting path-breaking studies, however, new researchers should become familiar with at least one path currently in use. During your first year in the program, we encourage you to begin to develop a research focus in one substantive area (managerial accounting, financial accounting, auditing, or tax), select a minor area as a source discipline (finance, economics, or management), and plan to take related research methods courses (econometrics or statistics for behavioral scientists).

COURSEWORK

The following advice on coursework makes a few assumptions. First, we assume that you are familiar with the Graduate College requirements (see Graduate Catalog). For example, the Graduate College requires the equivalent of at least six semesters of full-time graduate study, with a minimum of 36 units in the major subject (i.e., accounting + research methods), a minimum of 9 units in the minor subject, and a minimum of 18 units of dissertation. Second, we assume that students have an undergraduate degree or the equivalent in accounting. Students without this background need to take additional accounting courses. Third, we assume that students have at least one year of calculus and a good understanding of matrix algebra. Students without this background or in need of a refresher should take MATH 125 (Calculus I), MATH 129 (Calculus II), and AREC 580 (Math for Economists) or ECON 519a (3-week “boot camp” in mathematical economics), during the summer before the first year. **WARNING:** Many students

underestimate the quantitative rigor of research methods courses. Unless you are certain about the adequacy of your quantitative background, we strongly encourage you to take ECON 519a during the summer before the first year.

In the student's first year, the Department Head serves as advisor. For subsequent years, the student will arrange for another faculty member to serve as "major professor." The Department Head and major professor are jointly responsible for approving the student's Plan of Study (to be submitted to the Graduate College no later than the third semester). Eventually, the student will arrange for a tenured faculty member to serve as dissertation supervisor. The student and dissertation supervisor work together to form a dissertation or examining committee, which provides timely input to the student and ultimately is responsible for approving the dissertation. The dissertation committee should be formed no later than the end of the third year.

Major Subject

The Graduate Catalog distinguishes between the major and minor subjects. We use a refined distinction with three categories: major subject (accounting), minor subject, and research methods.

Besides the dissertation, the major subject consists of five courses, including ACCT 696b, ACCT 682, and three electives. ACCT 696b provides a general introduction to empirical accounting research, with an emphasis on identifying viable research questions and designing empirical tests that support valid inferences. ACCT 682 surveys the literature in financial accounting research, and requires students to conduct their own archival data analysis.

In addition to ACCT 696b and ACCT 682, the major subject requires three more courses. The selection of courses depends on the student's research focus. One option is to take additional accounting doctoral seminars. The Department's offering of accounting doctoral seminars depends on student demand and faculty availability. In the past, the seminars have included a second course in financial accounting, managerial accounting, auditing, tax, and experimental accounting. Another option is supervised independent study. For example, an independent study could involve a joint research project by the student and a faculty member. A third option is to take a non-accounting course which would yield a special complementary effect given the student's research focus (e.g., a doctoral course in microeconomics, macroeconomics, game theory, or public policy). A non-accounting course that counts in the major subject cannot also count in the minor subject or as a research methods course.

The dissertation stage normally takes one to two years, after the completion of coursework. We encourage students to identify a research question for their dissertation *before* the completion of coursework. This timing allows the student to make early progress on the literature review, plan the collection and analysis of data, and so on, which can greatly accelerate the dissertation stage.

Most students enter the academic job market in the spring semester of the fourth or fifth year. As noted earlier, an important step is the student's preparation of a working paper that reports the dissertation project. Before sending the working paper (along with a resume, letters of recommendation, etc.) to other universities, students make a formal presentation of their

dissertation project in a departmental workshop here. The audience for this formal presentation includes tenure-track faculty and other doctoral students, who will provide useful and timely input. This presentation should be scheduled no later than October of the calendar year before the spring semester when the student plans to be on the market. This scheduling requires the careful planning and execution of earlier steps (e.g., forming a dissertation committee). In addition, the faculty strongly recommends that the student make an informal presentation of work-in-progress on the dissertation no later than May of the calendar year before entering the market. The audience for this informal presentation includes the dissertation committee plus other interested faculty and doctoral students. Failure to make this informal presentation on a timely basis strongly indicates that the student will not be ready to enter the market during the next academic year.

There are many departmental workshops during the academic year, at which faculty, students, and visitors from other universities present their work. These workshops are scheduled on Friday afternoons, 3:30 to 5:00. In addition to the above seminar requirements, all students are expected to participate in these workshops. All students should read the papers in advance and prepare to ask relevant questions and provide constructive comments during the workshop. Students who actively participate in workshops accelerate their development and enhance their reputation as a scholar. The course designation for the workshops is ACCT 797a.

Minor Subject

The common minor subjects are finance, economics, and management. Before embarking on the minor subject, students must obtain agreement from the relevant department as to the specific courses that are necessary and sufficient for completing the minor subject. Students also should find out the requirements as to any minor subject exam. Table 2 lists the courses for possible minor subjects. Because the student must obtain approval for the specific set of courses from the department that offers the minor courses, the listing of courses in Table 2 is illustrative and not definitive.

TABLE 2. Illustrative Minors for Accounting Students.

FINANCE. FIN 600 (Theory of Finance), and either the three courses FIN 602 (Dynamic Asset Pricing), FIN 695a (Investments), and FIN 696e (Corporate Finance), or two of those courses plus one 500-level finance course. FIN 600 is a prerequisite for the other 600-level courses. A student with no prior finance background must take FIN 510 before taking any other course.

MANAGEMENT (Organizations). M&O 554, Field Research Methods, or M&O 600, Behavioral Science Theory & Methodology, plus three other 600-level courses in Management and Organizations. Completion of the minor requires a review paper or theoretical paper on a topic to be approved by the minor advisor and the graduate advisor in Management & Organizations.

ECONOMICS. Four of the following courses: ECON 501a, 501b, 501c (Microeconomic Theory), ECON 520 (Theory of Quantitative Methods in Economics), ECON 522a (Econometrics).

DISTRIBUTED MINOR – EXPERIMENTAL. Four doctoral seminars designated by the minor professor on the psychology of judgment and decision making (e.g., MAP 696d), behavioral game theory (e.g., MAP 558), experimental economics (e.g., ECON 696a), or behavioral economics (e.g., ECON 696b).

When planning the minor subject, students should meet with relevant senior faculty: financial accounting (Dan Bens, Dan Dhaliwal, and Mark Trombley), managerial accounting (Leslie Eldenburg and Bill Waller), auditing (Bill Felix, Jeff Schatzberg, and Bill Waller), and tax (Dan Dhaliwal and Oliver Li).

Research Methods

All students take a minimum of six courses in research methods. All students take ECON 518 (Introduction to Econometrics), ECON 520 (Theory of Quantitative Methods in Economics), and ECON 522a (Econometrics I). In the first year, students normally take ECON 518 in the first semester. Students who are “math ready” when they enter the program should take ECON 520 for credit in the first semester of the first year, and ECON 522a in the second semester. Other students should audit these courses during the first year, and take them for credit in the second year. As stated earlier, students can enhance their math background by taking courses in calculus and matrix algebra (AREC 580, ECON 519a, MATH 124, MATH 129). The latter courses do not count toward the minimum of six courses in research methods.

The three remaining courses in research methods depend on whether the student’s approach to accounting research involves archival data analysis or experimental data analysis. As with the minor subject, the student should talk to senior accounting faculty about the appropriate set of research methods courses in light of the student’s primary approach to accounting research.

For students taking the archival route, the remaining courses should emphasize econometrics, i.e., ECON 522b (Econometrics II) plus two electives such as ECON 549 (Applied Econometric Analysis), ECON 696e (Econometric Modeling I), ECON 696f (Econometric Modeling II), MATH 562 (Time Series Analysis), MATH 568 (Applied Stochastic Processes), MAP 582b (Multivariate Statistics), or SIE 520 (Stochastic Modeling).

For students taking the experimental route, the remaining courses should emphasize statistics for behavioral science, i.e., MAP 582c (Univariate Statistics), MAP 582d (Multivariate Statistics), plus one elective such as MAP 554 (Research Methods – Survey/field Methods), MAP 600 (Behavioral Science Theory and Method in Management), MATH 562 (Time Series Analysis), MATH 568 (Applied Stochastic Processes), MATH 569 (Nonparametric Statistics), MATH 570 (Categorical Data Analysis), or SIE 520 (Stochastic Modeling). Another possibility for students who pursue experimental economics is ECON 522b (Econometrics II).

Putting It Together

To develop a program of study, the student's first decision should be one of the six options for a primary approach to accounting research, i.e., options A-F on page 2. Given this decision, the program of study should include a minor subject and a set of research methods courses that support the student's primary approach to accounting research.

Option A (financial accounting + archival method): In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in financial accounting, tax, auditing, or economics (e.g., ECON 501a, ECON 501b). The minor subject should be finance and the research methods courses should emphasize econometrics.

Option B (tax + archival method): In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in tax, financial accounting, or economics (e.g., ECON 501a, ECON 501b). The minor subject should be finance and the research methods courses should emphasize econometrics.

Option C (managerial accounting + archival method). In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in managerial accounting, financial accounting, auditing, or economics (e.g., ECON 501a, ECON 501b). The minor subject should be economics or management (organizations), and the research methods courses should emphasize econometrics.

Option D (managerial accounting + experimental method). In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in managerial accounting, financial accounting, auditing, or experimental accounting. The minor subject should be management (judgment and decision making) or distributed minor – experimental, and the research methods courses should emphasize statistics for behavioral science.

Option E (auditing + archival method). In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in auditing, financial accounting, or economics (e.g., ECON 501a, ECON 501b). The minor subject should be finance or economics, and the research methods courses should emphasize econometrics.

Option F (auditing + experimental method). In addition to ACCT 696b and 682, the major subject normally would include three more seminars or independent studies in auditing, financial accounting, or experimental accounting. The minor subject should be management (judgment and decision making) or distributed minor – experimental, and the research methods courses should emphasize statistics for behavioral science.

First-year Courses

Fall – All students should enroll in ACCT 696b, ACCT 797a, and ECON 518. Students who are “math ready” should enroll in ECON 520 for credit. Other students should audit ECON 520 and otherwise upgrade their math skills. For students who have already selected a minor subject, we

advise an additional course: a FIN or ECON course for students who minor in finance or economics, or a MAP course for students who minor in management.

Spring – All students should enroll in ACCT 682 and ACCT 797a. Students who took ECON 520 for credit in the fall semester should take ECON 522a for credit in the spring semester. Students who audited ECON 520 in the fall semester should audit ECON 522a in the spring semester. Additional courses in the spring semester depend on the student's selection of the minor subject and other research methods courses.

QUALIFYING AND COMPREHENSIVE EXAMINATIONS

In June of the first year, students take a written exam (i.e., qualifying exam) that covers the content of ACCT 696b and 682. The Department Head selects faculty (normally those who teach these two seminars) to write and grade this exam. There are three possible outcomes: (1) pass and continue in the program, (2) fail and leave the program, or (3) fail with permission to re-take. In the latter case, the student must re-take the exam by the end of August of that year.

In addition, a comprehensive exam is taken upon the completion of coursework, but no later than three months prior to the Final Oral Defense Examination. As required by the Graduate College, the student must pass a general examination that tests his or her comprehensive knowledge of the major and minor subjects, both in breadth across the field of study and in depth within the area of specialization. This exam has two parts: (1) a written portion covering the major and minor fields, and (2) an oral portion that is conducted before a committee of five faculty members appointed by the Dean of the Graduate College, upon the recommendation of the major and minor departments. The written and oral portions are to take place within two successive semesters, not including summer sessions. No student is permitted a second attempt to pass the Oral Comprehensive Examination unless it is recommended by the examining committee, endorsed by the major department, and approved by the Dean of the Graduate College. The second examination, if approved, may not take place until four months after the date of the first examination.

FINAL ORAL DEFENSE EXAMINATION

Upon completion of the dissertation, the student must take a Final Oral Defense Examination that focuses on the dissertation. The examining committee must be composed of at least three faculty members in the major area and, at the option of the minor department, two members of the minor area (see Graduate Catalog for other details).