

## **Organizational Behavior and Theory Ph.D. Curriculum**

Mark Fichman—April 8, 1992  
 Revision: Laurie Weingart—August 20, 1996  
 Revision: Laurie Weingart—January 9, 2001  
 Revision: Don Moore—February 5, 2006  
 Revision: Paul Goodman—May 24, 2007

### **Summary of Deadlines**

- |    |                              |                           |
|----|------------------------------|---------------------------|
| 1) | First year summer paper      |                           |
|    | Proposal due:                | May 31, Year 1            |
|    | Proposal presentation:       | By end of May, Year 1     |
|    | Informal draft of paper due: | July 1                    |
|    | Formal draft of paper due:   | August 1                  |
|    | Final draft due:             | August 31                 |
|    | Final presentation:          | Fall, Year 2              |
| 2) | Qualifying exams             | December/January, Year 2  |
| 3) | Second year summer paper     |                           |
|    | Proposal due:                | By the end of May, Year 2 |
|    | Draft of paper due:          | July 1                    |
|    | Formal draft of paper due:   | August 1                  |
|    | Final draft due:             | August 31                 |
|    | Final presentation:          | Fall, Year 3              |

### **Organizational Behavior and Theory Ph.D. Curriculum**

The Organizational Behavior and Theory (OBT) program at Tepper has the objective of providing high quality training in organizational behavior and theory and developing skilled researchers who will make a contribution to the field both as researchers and teachers. Students in our program should develop a core set of theoretical skills encompassing knowledge of both the micro and macro areas of the organizational sciences. Such core skills reflect both the underlying psychological (micro) and sociological (macro) foundations of our field as well as the research and theory emerging within Organizational Behavior and Theory. As a result, students will often do course and research work in psychology, sociology, economics, neuroscience, or human-computer interaction, as well as in Organizational Behavior and Theory. Students should develop an appropriate set of research skills so that they may become contributing scholars in the organizational sciences. These goals are supported by a core curriculum specified by the faculty. Students also should develop their teaching skills to prepare them for an academic position. Upon completion of the core requirements, qualifying examinations, and the first and second summer papers, students shall begin and complete a doctoral dissertation. These are the basic requirements of the OBT program outlined in this document.

Students of OBT are also provided the opportunity to attend seminar series within Tepper, Carnegie Mellon, and at the University of Pittsburgh. These seminar series provide exposure to researchers and their ideas from other universities and from within CMU. Students are expected to attend the OBT seminar series and are strongly encouraged to attend the Groups and Organizations (GO) seminar series offered jointly by units at both CMU and the University of Pittsburgh.

This document describes the curriculum of the OBT program. It describes the various requirements that must be fulfilled to be a student in good standing in the OBT program and complete the program with a Ph.D. in OBT. It outlines evaluation procedures used to monitor progress in the program. This document does not replace the requirements and regulations of the Ph.D. Program at Tepper. It is intended to elaborate, clarify, and supplement the basic requirements of the Tepper Ph.D. program.

Should any conflict arise between the Ph.D. program requirements and regulations and those of the OBT program, the Tepper doctoral requirements supersede the requirements of the OBT program.

Recognizing that OBT is inherently multidisciplinary, we fully expect students to make use of resources throughout the Carnegie Mellon University and University of Pittsburgh social science communities. We appreciate that one OBT group in a business school cannot readily provide all of the training in psychology, sociology, and statistics needed to be a competent organizations researcher. We want to assure students of the best available training in their area(s) of interest. Towards this end, we will try to identify and facilitate the best use of available educational resources.

### **First Year Core Curriculum**

During the first year, students are expected to take a set of introductory and more specialized courses, develop an advising relationship with a faculty member, and begin work on a first summer paper.

#### Courses

The introductory OBT Ph.D. curriculum consists of two survey courses, two methods courses, and special seminars. Students should take:

- 47-890 – Micro Seminar in Organizational Behavior
- 47-903 – Macro Seminar in Organizational Theory
- 47-908 – Field Research Methods in Behavioral Science
- An experimental research methods course (choosing from those offered at CMU or Pitt)
- Special Ph.D. seminars (these rotate each year)

Students are also required to take additional courses to broaden their knowledge of OBT, especially topical Ph.D. seminars offered by OBT faculty.

In addition, students should choose statistics courses, together with their advisor(s), which best meet their needs and the requirements of the curriculum. Students should be able to meet the requirements for understanding and performing data analysis in our field. This implies a knowledge of basic probability and distribution theory, hypothesis testing, the general linear model and its application in both the

analysis of variance, multiple regression and related techniques (e.g., econometric models, limited dependent variable techniques, and so on), some knowledge of multivariate methods (e.g., contingency table analysis, structural equation modeling) and experimental design. These courses have been traditionally offered by Tepper's Ph.D. or Masters' programs, the Statistics department, Psychology department, the Heinz school, the Human-Computer Interaction Institute, or at University of Pittsburgh. Relevant courses that OBT students have taken in the past are listed in an appendix to this document.

If a student has completed some of these requirements prior to entering the program, the student should first speak to their advisors and determine where in the statistics sequence they stand. Then the student and advisors should identify appropriate courses to fulfill the statistical training requirement.

We expect students to take other courses appropriate to their interests and needs after consultation with their advisors. We expect students to be taking courses throughout their first two years in the program. In particular, students are strongly encouraged to take course(s) in the disciplines underlying OBT, including courses on cognitive processes, social psychology, decision making, organization theory, social networks, small groups, etc. These courses are offered by psychology, sociology, and Social and Decision Sciences departments here and/or at the University of Pittsburgh and at the Heinz School of Public Policy. Student programs and course selections will be evaluated at the time of annual student reviews by the OBT faculty.

### Advisors

At the beginning of the first semester of a student's residence in the program, an advisor will be assigned to each student by our Ph.D. coordinator in consultation with the chair of the Ph.D. program. Our Ph.D. coordinator should meet with all incoming students to review this document. The first-year students and their assigned advisors should meet in late August to develop a mutual understanding of the core curriculum, advising, and the meaning of developing competencies in the OBT program. By competency in an area, we mean the skills and knowledge in a particular area (e.g., group decision making, social networks, social cognition) such that the student can conduct research and teach at a professional level in that area of competency.

Students are expected to maintain an advising relationship with an OBT faculty member. However, students are welcome to change advisors as their interests sharpen and/or shift over time. After obtaining approval from the new advisor, students should inform our Ph.D. coordinator and the Chair of the Tepper Ph.D. program of any changes. Students should meet with their advisors regularly on a mutually agreed upon basis, and begin to identify areas of student interest and how best to address those interests. Students and faculty will want to identify courses (in addition to the core curriculum) that would be suited to a student's tastes, preferences and current skills. For example, students interested in group performance might identify courses on the social psychology of groups. Students interested in individual behavior might identify courses in social motivation and attitudes. We encourage students to talk to advisors and other faculty as often as necessary to help identify other opportunities for acquiring skill and experience (e.g., research assistantships, grading positions, data collection, coding and analysis opportunities).

### First Year Summer Paper

The first summer paper requirement is designed to provide students with early exposure to and experience with the research process. It could be a wholly independent project, a portion of a larger faculty research program, part of a joint research project with others (e.g., faculty), or a constructive, conceptual replication of other work in the field. However constructed, the project should clearly represent the student's contribution. The topic should be a social science project with some identifiable link to OBT. Work in related disciplines like psychology, sociology, economics and the management sciences that demonstrates research competence and provides a useful learning experience relevant to the student's development in OBT is welcome. The student must identify two faculty readers for the paper. The student may ask one of the readers to be a primary faculty reader<sup>1</sup>, if the student so desires. At least one of the two readers should be on the OBT faculty. The primary faculty reader does not have to be an OBT faculty member. The faculty readers have primary responsibility for the supervision of the student's

---

<sup>1</sup> A primary faculty reader is a faculty member who is principally responsible for the supervision of work on the summer paper. Since research often requires resource allocation decisions and other decisions requiring faculty approval, a primary faculty reader is the person who fulfills such a role on behalf of Tepper.

research and the evaluation of outcomes. Students should feel free to consult other faculty as well.

Students submit a proposal for the first summer paper at the end of May (immediately following the end of the second semester of the student's first year).

#### First Summer Paper Evaluation

The doctoral program recommends an informal first draft be completed by July 1 of the first year following the student's entry into the program. At a minimum this draft would include a problem statement, relevant literature review, and basic design of the study. A completed draft of the first summer paper must be submitted to the two faculty readers by August 1 (of the first year following the student's entry into the program). Completed here means a reasonable idea has been developed and studied, and the paper is on track for completion by August 31 of the same first summer. Students are expected to spend the summer working on this paper. In general, the summer is a critical time for students to work with faculty on research, and students are expected to be working on their research all year, including summers. The student must complete the proposed study (or in the case of a very ambitious project, a part of the proposed study approved by the faculty readers) by the end of the summer after the first year. The final product will be evaluated for the third semester review following the general evaluation guidelines set out by the Tepper Ph.D. committee for first year summer papers.

#### First Year Summer Paper Proposal and Final Draft Presentations

First year summer paper proposals will be presented to the OBT group (faculty and students) by the end of the second semester (i.e., May). Students should be prepared to present at least the theory and research plan for their first summer paper. The goal of this presentation requirement is to provide feedback to students on their research ideas and to provide an opportunity to practice research presentation skills. Presentations of completed first year summer papers will be made to the OBT group in the fall of the second year. Presentations will be allotted 45 minutes, with 20-30 minutes to present and the remainder of the time for discussion. This requirement is NOT an oral exam, but rather an opportunity for students to develop their skills at presenting research in front of an audience.

## **Second Year Core Curriculum**

The second year curriculum includes additional coursework, qualifying exams, completing the first summer paper and beginning the second summer paper.

### Outside Area “Minor” Requirement

The minor area is designed to build depth around the student’s thesis area. The student and advisor should develop a plan of courses and other learning experiences to create a good background for the thesis work. Courses to fulfill the minor requirement may be taken within Tepper or in relevant outside areas such as psychology, sociology, and economics. These outside departments might include the Psychology Department, the Heinz School, the Department of Social and Decision Sciences, the Human-Computer Interaction Institute, or the University of Pittsburgh. Math or statistics courses can also serve to fulfill this requirement. We encourage students not to delay taking these courses until the 3<sup>rd</sup> semester.

### Qualifying Exam

The qualifying exam will be scheduled at the end of the third semester in residence. Students take three exams: micro, macro, and methods. The questions covered in these exams will draw from the content of all the OBT doctoral courses offered in the 3 preceding semesters. However, we expect students to begin reading the current literature in the field (e.g., in publications like *Academy of Management Journal*, *Academy of Management Review*, *Administrative Science Quarterly*, *American Journal of Sociology*, *American Sociological Review*, *Journal of Applied Psychology*, *Research in Organizational Behavior*, and *Organizational Behavior and Human Decision Processes*). Students should be aware of classic work in the field as well as work appearing in the recent literature that pertains to the topics covered in the required courses.

### Third Semester Evaluation

Upon completion of the third semester the OBT faculty will meet to evaluate student performance. The goal of this meeting will be to review each OBT student’s progress and to prepare for

the Tepper 3<sup>rd</sup> semester Ph.D. student review meeting. All material relevant to student performance (e.g., course grades, qualifying exam performance, summer paper and summer paper evaluations) will be available to the OBT faculty prior to the meeting. Students will also be asked to provide a summary of activities and projects (i.e., annotated vitae). If other faculty have relevant information which pertains to such evaluations, that information will be obtained either in writing or by asking that faculty member to attend the evaluation meeting.

Based on the results of this meeting, the faculty will make any warranted recommendations at the 3<sup>rd</sup> semester review to the Tepper faculty and Ph.D. chair. For example, in some cases, students who fail parts of the exam may be asked to leave the program. In other cases, students who perform poorly or fail may be given a set of recommended activities to address and resolve problems revealed by the exam, class performance, or summer paper. If the two designated faculty readers of the summer paper find substantial problems with the paper such that it is not acceptable, the faculty will consider this evaluation and all the other student performance during the year in developing a recommendation to remedy the problem. In all cases, the faculty will evaluate the total student performance in the program in the formulation of any recommendations to the faculty and Ph.D. Chair. If the OBT faculty feel that a student displays clear, significant and persistent performance problems, and that the student should be asked to leave the program, such a recommendation can be sent to the chair of the Ph.D. program. Any decision on asking a student to leave will be made by the Ph.D. chair in accordance with the policies of the Ph.D. program at Tepper.

A meeting of each student with his or her advisor(s) will be scheduled to provide feedback to the student about the Third Semester evaluation. In addition, a written evaluation will be provided to each student.

### Second Year Summer Paper

The second summer paper is a research project that ideally will help the student work toward the development of a dissertation. The project can involve empirical research and/or theory development. The paper should reflect the greater skill and sophistication of a second year student. Again, the topic

should be a social science project with some clear, identifiable link to OBT. Again, the student must identify two readers for the paper. The student may ask one of the readers to be a primary reader, if the student so desires. At least one of the two readers should be on the OBT faculty. The primary reader does not have to be an OBT faculty member. The readers have primary responsibility for the supervision of the student's research and the evaluation of outcomes.

### Second Summer Paper Evaluation

The due dates and procedures for the second summer paper are the same as for the first summer paper. A completed first draft is due August 1 of the second summer, and the completed final draft is due on August 31. An informal first draft should be submitted by July 1 of the second summer. The completed final draft of the second summer paper will be considered in the fifth semester review.

### Second Year Summer Paper Presentations

Completed second year summer papers will be presented to the OBT group (faculty and students) in the first semester of the third year. Presentations will be allotted 45 minutes, with 20-30 minutes to present and the remainder of the time for discussion. This requirement is NOT an oral exam, but rather an opportunity for students to develop their skills at presenting research in front of an audience.

### Teaching Requirement

In order to develop teaching skills in preparation for an academic position, students are required to deliver a course or recitation section. Typically, Ph.D. students in the OBT teach a section of Organizational Behavior I, the required course in the undergraduate Business Administration program. The opportunity to teach often occurs during the summer session after the second, third, or fourth year. Students typically work as teaching assistants to faculty, grading and assisting more generally, in preparation for this requirement. However, the teaching requirement cannot be fulfilled by working as a TA. Students are paid for their teaching efforts. We encourage students to become involved in the Eberly Teaching Center as a way to develop their skills.

### Annual Reviews

The OBT faculty will meet annually prior to the 3<sup>rd</sup> semester Ph.D. student reviews that are conducted (usually in January) by the entire Tepper faculty to review the work of all other students currently in the program. This means all students beyond their first year can expect to have the faculty review their progress and accomplishments on an annual basis. As at the first year review, all relevant student materials will be made available to the OBT faculty in advance of the annual review so all faculty can participate in the review. Where appropriate, feedback from other faculty who have useful information about students will be solicited. Students will again be asked to submit annotated vitae prior to this meeting. Students will receive feedback about the outcome of these reviews and should meet with their advisor(s) to review this feedback.

### **Dissertation**

The major requirement for the Ph.D. degree at Carnegie Mellon is the doctoral dissertation, which must be a significant research accomplishment representing a clear contribution to knowledge and containing material worthy of publication. In the Tepper doctoral program, the dissertation may be either a monograph or a collection of related papers, depending on the nature and scope of a student's subject.

In OBT, a student works with the faculty to formulate ideas for the thesis. The student then forms a committee, usually composed of three to four faculty members from the student's major field and allied areas. One of these members serves as the Chair of the committee. At least one member of the committee must be a member of the OBT group. Each student at Tepper writes and then presents a thesis proposal in a seminar with faculty advisors comprising the committee, other interested faculty, and other Ph.D. students. This seminar gives the student an opportunity to exchange ideas with faculty members and other students and to collect valuable suggestions and advice on the structure and direction of the dissertation. If the faculty approves the dissertation topic, the dissertation committee is formally appointed. The committee guides the student in completing the dissertation and in developing research skills that meet the highest professional standards. The dissertation and the final oral defense should demonstrate a

student's command of the field of study, independence in defining and solving a problem in that field, and skill in communicating ideas.

### **The Tepper OBT Ph.D. Community**

In addition to the formal requirements of the program, there are a set of related activities. Every year we have a seminar series featuring speakers outside and inside the University. This is another forum for learning. Recently, we have joined a consortium of schools which receive “Methods” lectures via videoconferencing. These broadcasts feature experts and represent a way to supplement our training. We subscribe to these broadcasts for the benefit of our students. We expect students to attend these seminars.

Recruiting new Ph.D. students and faculty represents another part of our life. Each year we recruit new doctoral students, who want to learn about the program from the current students’ perspectives. Therefore, participation in these activities is important.

### **The Tepper Ph.D. Program**

The Ph.D. program in OBT is part of the Tepper Ph.D. program, and operates under the rules established by the Ph.D. committee and Ph.D. chair.<sup>2</sup> Consequently, this document is written such that the OBT program is consistent with the goals, rules and standards of the Tepper Ph.D. program. Where those are in conflict, students should notify a member of the OBT faculty or the Ph.D. chair, so the conflict can be resolved.

Faculty will participate in the third and fifth semester reviews administered by the Ph.D. chair. At the time of the reviews, the OBT faculty will provide the Ph.D. chair with any necessary information required to complete student reviews. In addition, if problems which require the attention of the Ph.D. chair surface in the course of the annual reviews of OBT students, they will be brought to the attention of the chair and any proposals for remedial action will be submitted to the chair for review and approval.

---

<sup>2</sup> The current policy can be found at <http://www.tepper.cmu.edu/current-students/current-doctoral/doctoral-program-policies/index.aspx>

Effective Date: This document is effective for all incoming students as of September 1, 2007.

Appendix: An incomplete list of potentially relevant classes (Excluding OBT seminars) taken by OBT students between 2003 and 2007. These classes can be useful for fulfilling requirements. Statistics and methods classes appear in *italics*.

<u>Course Number</u>	<u>Course Name</u>	<u>Department</u>	<u>Instructor</u>
36-749	<i>Experimental Design in Behavioral and Social Science</i>	Statistics (CMU)	Seltman, Howard
36-743	<i>Statistics for Behavioral and social sciences</i>	Statistics (CMU)	
90-905	<i>Statistical Theory for Social and Political Analysis</i>		
90-906	<i>Intro to Econometric Theory</i>		
90-907	<i>Econometric Theory and Methods</i>		
36-720	<i>Discrete Multivariate Statistics</i>		
88-708	<i>Psychometric Theory</i>	SDS (CMU)	Dawes, Robyn
36-725	<i>Probability Meth and Stat 1</i>		
47-825	<i>Applied Bayesian Methods</i>		
90-909	<i>Topics in Advanced Econometrics</i>		
90-927	<i>Applied Data Analysis</i>		
88-752	<i>Seminar in Organizational Theory</i>		
36-707	<i>Regression Analysis</i>		
47-946	Group Technology and Organizational Efficiency		
21-241	<i>Matrix Algebra</i>		
88-702	Behavioral Economics	SDS (CMU)	Loewenstein, George
88-724	Experiments in Psychology and Economics	SDS (CMU)	Weber, Roberto
88-703	Seminar in Human Judgment and Decision Making	SDS (CMU)	Dawes, Robyn
90-903	Social Network Methodology	Heinz (CMU)	Krackhardt, David
Pitt741	Psychology of Small Groups	Psych (Pitt)	Levine & Moreland
47-858	Communication Skills Theory Practice		
47-990	Seminar in Strategy		
79-821	RIS Industry and Research Development		
85-711	Cognitive Processes in Problem Solving		
88-750	Computational Modeling and Org Tch Soc		
90-919	<i>Social Network Methodology</i>		
21-355	Advanced Calculus		
36-708	<i>Linear models and experimental design</i>	Statistics (CMU)	Vlachos, P.
90-785	Survey design and analysis	Heinz (CMU)	
Pitt	<i>Structural equation modeling</i>	Katz (Pitt)	Carr, Christopher
45-842	Ethical Issues in Business		
47-742	Seminar in Marketing 2		
47-951	Seminar in information systems 1		
47-952	Seminar in information systems 2		
47-954	Seminar in information systems 4		
47-957	Computer Supported Cooperative Work		Kraut, Robert
47-992	Economics of Entrepreneurship		
80-517	Seminar in social and political philosophy		
85-705	Graduate Core Course: Social Psychology		
88-343	Economics of Technical Change		
88-737	Dynamic Models of Firm Decision		
88-740	Entrepreneurship in High Tech Industries		
88-756	Communication in Groups and Organizations		
90-908	Microeconomics		
Pitt723	Topics in Social Psychology		
Pitt751	Topics in Social Psychology		
Pitt	<i>Applied advanced regression</i>	Psych (Pitt)	Vortruba-Drzal, Eliz.
Pitt	<i>Research Methodology (Course ID: BUSADM 2001)</i>	Katz School	Hulland, John