

DOCTORAL PROGRAMS

Doctor of Management (DM) and PhD in Management: Designing Sustainable Systems

Business leadership is increasingly required to integrate multiple sources of knowledge, understand the perceptions of diverse parties and put human values into action. Executives are challenged to create social, intellectual and economic value for their organizations and for society at-large based on rigorous and sound evidence. Recognizing these challenges, Weatherhead offers two doctoral degrees in management for working professionals: the DM and the PhD in Management: Designing Sustainable Systems.

The DM is based on the expectation that the practitioner-scholar will develop the ability to think intensely and critically about problems confronting an organization, a community, a nation and the world. Through conceptually modeling these problems, assessing and modifying the assumptions underlying the models, testing assumptions empirically and applying modes of thought drawn from many disciplines, students draw conclusions and propose solutions based on the results their models produce.

The PhD in Management: Designing Sustainable Systems is focused on preparing interdisciplinary practitioner-scholars for successful research and academic careers. Students develop the ability to approach problems of practice rigorously from multiple disciplinary angles and to produce sound evidence and theoretical frames to address those problems.

Curricula and coursework in these programs provide a foundation for conducting rigorous research and practicing evidence-based management. Courses are interrelated theoretically and methodologically and prepare students to bring academic, theoretical and empirical perspectives to bear on problems that they face in their organizations or in public policy advocacy.

DM

The DM is a 54-credit-hour, three-year, lock-step program with an option to pursue the Designing Sustainable Systems track in the PhD in Management. DM students' research projects are evaluated by a faculty review committee over the course of the program at critical research milestones.

Curriculum

First Year	Units	
	Fall	Spring
Theory and Practice of Collective Action (EDMP 611)	3	
Introduction to Research Inquiry (EDMP 665)	3	
Leading Change (EDMP 613)	3	
Qualitative Inquiry I (EDMP 638)		3
Flourishing Enterprise: Creating Sustainable Value for Business and World Benefit (EDMP 672)		3
Understanding, Designing, Managing Complex Systems (EDMP 673)		3
Year Total:	9	9

Second Year	Units	
	Fall	Spring
Qualitative Inquiry II (EDMP 641)	3	
Conflict & Cooperation in the Global Arena (EDMP 680)	3	
Causal Analysis of Business Problems I (EDMP 648)	3	
Technology and Social System Design (EDMP 617)		3
Measuring Business Behaviors and Structures (EDMP 643)		3
Causal Analysis of Business Problems II (EDMP 649)		3
Year Total:	9	9

Third Year	Units	
	Fall	Spring
Integration of Qualitative and Quantitative Inquiry (EDMP 645)	3	
Advanced Analytical Methods for Generalizing Research (EDMP 646) or Business as an Evolving Complex System (EDMP 614)	3	
Designing Sustainable Systems (EDMP 677)	3	
Knowledge Dissemination to Influence Managerial Practice (EDMP 664)		3
Global Economic Systems and Issues (EDMP 616)		3
Social Ethics: Contemporary Issues (EDMP 640)		3
Year Total:	9	9

Total Units in Sequence: 54

Research Requirements and Deliverables

The DM dissertation consists of the Qualitative Research Paper, Quantitative Research Paper and an Integrative Paper that organizes the research into a coherent thesis.

Research Proposal Paper

The first research requirement is a qualitative Research Proposal that frames the student's research problem and question. Additionally, the proposal specifies a design for the fieldwork portion of the qualitative research project. An inductive qualitative research proposal is developed that synthesizes a substantial body of scholarly literature (theoretical and empirical) in a fashion that creates a conceptual framework and model that provides insight into a significant problem of practice reflecting the lived experiences of a specific group of practitioners. The proposal outlines a broad research question to guide the qualitative research and specifies a design for the fieldwork to be carried out in the study. Students develop individual skills of conceptualizing (including modeling), creating ethnographic/phenomenological interview protocols, conducting semi-structured interviews, and interpretively analyzing qualitative interview data.

Qualitative Research Paper

The Qualitative Research Paper presents findings and explanatory concepts from the student's qualitative fieldwork project. It identifies and frames a potent "phenomenological practice gap" where current practitioner and academic knowledge guide effective practice. The research synthesizes significant scholarly literature into a coherent conceptual framework and an understandable model of relationships

among theoretical constructs. Students learn to frame effective questions for practitioner-scholarship research that embodies inquiry and openness, to align the conceptual framework and research question to the chosen problem of practice and to write scholarly papers that are clear and that present a logical flow of well-supported arguments. By understanding the development of grounded theory and understanding ethnographic observation and field notes, students formally and rigorously analyze qualitative data in an interpretive fashion.

Capstone

The Capstone integrates the analytical approaches the student has learned in EDMP 643 Measuring Business Behaviors and Structures and EDMP 649 Causal Analysis of Business Problems II. The Capstone exercise is intended to allow students to demonstrate their independent competence in quantitative inquiry skills and, based on a satisfactory assessment, to progress toward the completion of the quantitative inquiry project, which is a requirement for both the DM and the PhD in Management: Designing Sustainable Systems.

Quantitative Research Paper

At the end of the Fall semester of the third year students complete a Quantitative Research Paper. The objective of the quantitative research project is to generate a rigorous and valid quantitative empirical study that is guided by a hypothesized model of the student's phenomenon of interest. The study must be framed by current theoretical and empirical work within the area of interest. A robust research design is utilized that follows the material covered in the quantitative research courses including collecting and validating data in a way that mitigates biases. The student completes a systematic and rigorous quantitative analysis and interprets the analysis in a way that provides novel insight to the phenomena of interest. The quantitative research paper details the project and is written in a manner that meets high scholarly standards to merit publication in top-rated journals and outlets.

Integrative Paper

As a final requirement for the DM dissertation, each student writes an overview statement introducing his or her Qualitative and Quantitative Research Papers, making substantive observations and conclusions about each project, and presenting a personal reflective statement about each project's significance to the author. The Research Proposal frames the dissertation overview in a preliminary way, but in light of the student's experience in conducting qualitative and quantitative studies, the synthesis is rewritten, revised and critically evaluated to become the Integrative Paper. The approved Integrative Paper, Qualitative Research Paper and Quantitative Research Paper serve as the dissertation requirement of the DM program.

PhD in Management: Designing Sustainable Systems

Weatherhead's Designing Sustainable Systems track in the PhD in Management (<https://weatherhead.case.edu/degrees/phd-management/designing-sustainable-systems>) program offers an extension to the DM. This program is for DM students who wish to reorient their careers to formally pursue positions as academic researchers and scholars. DM students can apply for this degree program during their second year in the DM program.

Research Requirements and Deliverables

Although transdisciplinary research is the main focus of the 72-credit-hour PhD in Management: Designing Sustainable Systems track, candidates must be grounded in a disciplinary field. Therefore, throughout their course of study, candidates will read seminal works and

acquire knowledge that leads to grounding in their chosen discipline(s) (for example, marketing, strategy, accounting, information systems, organizational behavior, finance or economics). Students are required to take a comprehensive exam demonstrating knowledge of the field's theories, research methods and results. Upon passing the comprehensive exam, students are advanced to candidacy for the PhD. Candidates defend their PhD thesis proposal and the final thesis during their course of study.

Doctoral candidates in the PhD in Management: Designing Sustainable Systems track undertake dissertation research during their fourth year of study to extend their contributions to managerial knowledge. Informed by courses in design practices, sustainable value and complex systems thinking, candidates incorporate human values and appropriate mixed methods of analysis into their research. An original and significant endeavor, the dissertation includes a detailed review of the chosen topic, relevant research questions, methods of inquiry used and findings obtained, as well as the implications of these findings.

For more information, contact Sue Nartker (sue.nartker@case.edu), managing director of the DM program, at 216.368.1943; or Marilyn Chorman (marilyn.chorman@case.edu), associate director of the program, at 216.368.3638.

PhD in Management

A PhD in management offers students the opportunity to develop theory-driven scholarship that is grounded in practice and explores various dimensions of value creation, and to prepare for a career as a faculty member.

Candidates may specialize in one of three areas:

- Accountancy
- Designing Sustainable Systems
- Design & Innovation

Accountancy

The PhD in accountancy is structured and a student study plan is developed to support high-quality research and effective teaching based upon knowledge and skill levels appropriate to a student's goals. Doctoral students work with faculty whose research investigates matters of importance to academics, practitioners and policy makers, in order to influence practice and standard setting in both the private and public sectors.

Curriculum

The first two academic years are directed toward the study of the literature, methods and recent research appropriate to a student's identified interests. Summer periods are available for individual reading, development and writing along project lines to be determined by the student's chair and program committee. This two-year period is expected to provide the foundation for preparing well-developed research papers that exhibit knowledge and skill levels appropriate to an individual's goals as he or she approaches candidacy.

The third year is devoted to writing focused individual papers leading to a dissertation proposal under the supervision of a study program committee. Based upon one of these high-quality research papers, a suitable dissertation proposal will be prepared by the end of the third year of study. This research and writing activity will not only help to determine the student's dissertation topic, but will also be considered equivalent to field examinations. The series of papers leading up to the dissertation

proposal, the proposal itself, and an oral presentation to the student's study program committee will be taken into account as the committee determines whether to grant doctoral candidate status to the student.

The fourth year is focused upon completion of the dissertation. The student will also prepare documents necessary and helpful to the acquisition of a full-time academic appointment. Most students will also be engaged in the revision of submissions of academic work to journals in the accounting discipline. Throughout the program, the student will develop competencies related to classroom and teaching activities as well.

For more information, visit our website (<http://weatherhead.case.edu/degrees/phd-management/accountancy>) or contact Elaine Iannicelli (elaine.iannicelli@case.edu), department administrator, at 216.368.4141.

Designing Sustainable Systems

Please refer to the Doctor of Management (p. 1) section of the Bulletin for more information on the PhD in Management: Designing Sustainable Systems.

Design & Innovation

The PhD in design and innovation brings together the disciplines of information systems, strategy and marketing to prepare scholars for path-creating research on consequential issues faced by organizations and managers.

The program encourages a cross-disciplinary approach to the generation of new knowledge on the management challenge of creating value for customers, stakeholders and society. Because traditional boundaries between the economic and the social, between the public and the private, and between management disciplines are becoming blurred, economic elements that had been separate and autonomous are now interconnected and interdependent. As a result, the global market economy requires unrelenting innovations in designing better products, services, interactions and environments.

The guiding principles for PhD studies in the Department of Design & Innovation are:

- To develop scholars with the interdisciplinary theoretical grounding and methodological skills that enable path-creating research on important management problems
- To prepare scholars and educators capable of holding academic positions in top universities and research institutions
- To produce scholars with a reputation as risk-takers who are unafraid to embrace the unconventional and engage in exciting research that informs both disciplinary and interdisciplinary interests
- To train graduates that value partnership with practitioner-scholars who share their interests and engage in joint exploration of research opportunities for publication in top scholarly journals

Curriculum

The department's PhD program is focused on disciplinary research and trains academic scholars for faculty positions in the disciplines of information systems and marketing at leading business schools.

The organizing principles for the program are:

- To provide rigorous interdisciplinary training in theory and methods through core courses

- To challenge students to develop research articles in each year of study that are discipline-focused and draw from their interdisciplinary training

The PhD program consists of coursework in three areas and a dissertation. Coursework in the following areas is required: general management research and methods, specialization research, and a minor area of study.

The general management research and methods component involves six courses offering sufficient interdisciplinary orientation:

- Research theory and methods
- Qualitative research methods
- Measurement in management research
- Multivariate data analysis
- Theory building and analysis
- Advanced data analysis

At the end of the first and second years of study, each student will be expected to complete and present a publishable paper that draws from one or more of their courses of study and demonstrates their progress in the program. These papers are expected to be targeted to top academic conferences and academic journals. In addition, students are required to attend the interdisciplinary research seminar series during each year of their study.

Following the completion of all required coursework, students take a comprehensive qualifying examination, generally during the second summer semester or early in the fall semester of the third year. Upon successful completion of the comprehensive qualifying examination, the student is admitted to candidacy and formally begins the dissertation phase of the program. The dissertation proposal and the dissertation itself are generally completed in one-and-a-half to two years. The advising team for each student will be led by a faculty member from the student's disciplinary focus but is expected to have interdisciplinary representation.

Students making normal progress should expect to finish all degree requirements within four to five years. Students must remain in residence throughout the coursework portion of the program, and the faculty strongly discourages any student from relocating prior to completion of the dissertation as doing so dramatically reduces the likelihood of completing the degree.

Students will be expected to complete a teaching requirement as part of their PhD studies. This requirement includes engaging in teaching responsibilities for at least two full semesters as an instructor of an assigned course and/or assistant assigned to department faculty teaching a course. Teaching responsibilities are governed by department priorities as determined by the chair.

Qualified students generally receive full tuition support for PhD courses taken at Case Western Reserve University. Outstanding students tend to receive financial aid based on research or teaching assistantships. Such assistantships require at least 20 hours of assigned work each week. The department plans to recruit four students every year.

Student Profile

Potential doctoral students are expected to have strong quantitative ability, a master's degree, a minimum of two years' work experience, a GMAT score which exceeds 650, and interest in pursuing a research topic that aligns with the research interests of the faculty in the department. Interested students are therefore encouraged to contact individual faculty

in the department to explore mutual interests. Qualified students will have a demonstrable record of intellectual curiosity, academic excellence and industry experience. We value diversity and encourage students with academic work in basic and social sciences including engineering, health and law to apply, in addition to those with business backgrounds.

For more information, visit our website (<https://weatherhead.case.edu/degrees/doctorate/phd-management>) or contact Gail Stringer (gcs23@case.edu), department administrator, at 216.365.5326.

PhD in Operations Research

The intrinsic complexity of supply chain organizations and the coordination of operational and financial decisions throughout the supply chain are at the heart of the PhD in operations research. Weatherhead's Operations Department has a rich history as a center of education and scholarship—it was here that the world's first doctorate in operations research was granted. Candidates learn a unique combination of mathematics, statistics and computer modeling to assist in decision-making for complex organizational problems.

For more information, contact Tedda Nathan (tedda.nathan@case.edu), department administrator, at 216.368.2040.

PhD in Organizational Behavior

Weatherhead's PhD in organizational behavior was the first of its kind. Graduating our first PhD students in 1964, our department set the standard for universities worldwide. United by a passion for generating new knowledge of enduring consequence through scholarly research, inquiry, and writing as well as deeply reflective practice, doctoral students study in a department consistently ranked among the best in the world.

Recipients of our PhD in organizational behavior have taken positions in leading universities and research institutions such as the London School of Business, Columbia University, Stanford University and the Naval Post-Graduate School.

Organizational behavior is a vital and growing field of knowledge that is concerned with human and developmental processes across levels of analysis from individuals and groups through organizations, inter-organizational systems and societies. The academic roots of the field span the disciplines of individual and social psychology, sociology, anthropology, political science and social philosophy. Organizational behavior situates the knowledge and tools of those disciplines in the context of the human dimensions of organizational life.

We approach the study of organizational behavior from the perspective of human possibility, with a special concern for the dynamics and processes of development and for creating new knowledge of individual, group and organizational processes of learning, development and transformation.

Goals of the Program

Our educational goals are to prepare PhD students to:

- Obtain a doctoral-level foundation in academic areas pertinent to organizational behavior, from the micro to the macro. This interdisciplinary course of study covers key social science domains such as psychology, sociology, learning theory, organization theory, living systems theory, management science and the organizational dimensions of global sustainability and change.
- Master and triangulate rigorous qualitative, quantitative and action-research methodologies in the quest for deep and comprehensive understanding.

- Develop a high level of professional creativity and interpersonal competence, as well as a foundation of professional values and ethics enabling the pursuit of research and teaching in the field, including the facilitation and design of contexts for human development and self-reflective learning, organization development and larger-system transformative change.

Our mission is to provide students with the knowledge, skills and values needed to: (1) conduct the highest quality research and teaching in the field and sub-fields of organizational behavior, and (2) become leading scholars in careers as researchers and educators at the top levels of their specializations and in high-impact areas of society.

Our vision is clear: to be a world-class center of doctoral education—known for our bold ideas, our powerful learning community, and our commitment to value-driven knowledge for the betterment of organizations and the greater good. All of this is in clear and strong alignment with the aim of the Weatherhead School of Management at Case Western Reserve University "to develop transformational ideas and outstanding leaders for the betterment of business and society," and through this environment to have a transformational impact on all who teach, learn, discover and work here, so they are prepared and engaged to advance knowledge and serve humanity.

The philosophy of the Organizational Behavior Department (<http://weatherhead.case.edu/departments/organizational-behavior>) is rooted in human values. These values guide our behavior as we strive to enhance research, learning and academic excellence amidst the demands and complexities of everyday life. They also reflect the spirit of connectedness among us that gives life to the doctoral learning community as a whole. The following guiding ideas represent our aspirations and our community at our best:

- Knowledge of consequence
- Methodological rigor and variety
- A community of inquiry
- A deep value for diversity and inclusion
- Whole person development
- The life of the mind
- Academic innovation and excellence

Curriculum

Our doctoral program is structured to resonate with our department's mission of developing world-class researchers and educators interested in doing high quality academic work of enduring consequence. Hence our program and course requirements encourage continual development of reading, writing, research methods, statistical skills and relational skills to help students effectively study and communicate their ideas. Coursework is completed in the first two years of the program, as follows:

Sample Course Schedule

First Year	Units		
	Fall	Spring	Summer
Organizational Behavior Department Seminar (ORBH 510)	1.5		
ORBH Dynamic Modules (3 each semester)	4.5		
Research Methods I (ORBH 560)	3		
Advanced Statistics: Linear Models (NURS 630)	3		

Organizational Behavior Department Seminar (ORBH 510)	1.5		
ORBH Dynamic Modules (3 each semester)	4.5		
Qualitative Research Methods	3		
Advanced Statistics: Multivariate Analysis (NURS 631)	3		
Measurement Theory and Method (MGMT 571)		3	
Year Total:	12	12	3

Second Year	Units	
	Fall	Spring
ORBH Dynamic Modules (3 each semester)	4.5	
Applied Multivariate Data Analysis (MGMT 573)	3	
Elective/Independent Study	3	
Organizational Behavior Department Seminar (ORBH 510)	1.5	
Organizational Behavior Department Seminar (ORBH 510)		1.5
ORBH Dynamic Modules (3 each semester)		4.5
Elective/Independent Study		3
Year Total:	12	9

Total Units in Sequence: 48

The PhD in organizational behavior program is designed for full-time, year-round engagement. Although some students may take shorter or longer to complete the program, it is generally completed in four to five years.

Each semester during the first two years, students participate in the ORBH Dynamic Modules, which are a series of short courses, each meeting once a week for five weeks. These Modules are designed to introduce the knowledge bases and key research of organizational behavior and related fields as well as share the current research interests of the department's faculty.

Students also participate each semester in the ORBH Research Seminar which is designed to create and sustain an intellectually nourishing and appreciative learning space for the entire community. The ORBH Research Seminar is required for both the first- and second-year cohort groups. It includes gatherings of the department's learning community of doctoral students and faculty. It provides a forum for discussion and advancement of ongoing research and scholarship through preparation and presentation of Integrative Scholarship Papers, Qualifying Papers, Dissertation Proposals and Dissertation Defenses. Thus the ORBH Research Seminar is a department-wide platform for developing productive and collaborative research relationships and for increasing collective knowledge of the current state of organizational behavior and related fields.

Research Requirements and Deliverables

The coursework is delineated for the first two years of the PhD. This provides a strong theoretical foundation for conducting future research. Other program requirements include the following:

Integrative Scholarship Paper

By the end of the spring semester of the first year, each doctoral student is required to complete an Integrative Scholarship Paper (ISP). This is a critical review and integration of the literature about a topic or problem of interest. It can be thought of as a report on the current state of the scholarly conversation about the topic, encompassing historical perspectives on the evolution of the scholarly conversation to date, an examination of how the topic is approached by different disciplines or schools of thought, theoretical propositions and suggestions for future research. The ISP is reviewed by the faculty adviser and a faculty reader, and upon approval is included in the department's working paper series. Beyond the first year, students are expected to work with their faculty adviser and others to submit their ISPs for consideration for conference presentation and journal publication during their second and subsequent years of the doctoral program.

Qualifying Paper

During the summer of their second year in the doctoral program, students complete a Qualifying Paper. Generally, this is an initial empirical investigation or meta-analysis of the topic of choice. The student is expected to form a committee, headed by a faculty adviser of the student's own choosing and two other departmental faculty members who guide the research. Often understood as a mini-thesis or pilot study, the student is expected to produce an in-depth analysis of the research question explored through a relevant method of inquiry. Students are expected to submit their qualifying paper for consideration for conference presentation and journal publication during their third and subsequent years of the doctoral program.

Dissertation

Doctoral students undertake dissertation research after completion of their qualifying paper. Each student forms a committee, consisting of three departmental faculty members (one of whom will be the committee chair) and one faculty member from outside the department but within the university, to guide the research conducted. An original and significant endeavor, the dissertation includes a detailed review of the chosen topic, relevant research questions, research methods, findings obtained and an analysis of their implications.

Though all three deliverables (the ISP, Qualifying Paper and Dissertation) may optimally flow within a single stream of inquiry, the student is free to choose a different topic of interest for each.

For more information, contact Lila Robinson (lila.robinson@case.edu), department administrator, at 216.368.2055.