THE ROSS PhD

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Welcome ::

Welcome to the Ross School of Business at the University of Michigan. Our school offers you an unparalleled opportunity for multidisciplinary study and research.

As a top-ranked business school operating within one of the world's largest research universities, you will work side by side with faculty who are shaping their fields and the global business community with ground-breaking research.

Here at the Ross School, no one paradigm dominates the research enterprise. Economic and behavioral models are valued equally, as are methodologies blending the two or incorporating innovations from other fields. This freedom enables faculty and PhD candidates to take advantage of the rich breadth and depth of intellectual inquiry found across the University.

The Doctoral Studies Program prides itself on its diversity of scholars. Because we are a general management institution, our seven areas of concentration are equally strong. As a result, we have doctoral students working in all disciplines. These individuals come from across the United States and around the world. The international composition of students and range of scholarship mimic the global business community of the 21st century and foster creative problem solving.

It also is important to note that the Ross School has a full complement of computing and database resources. Our institutes and centers — dedicated to entrepreneurial studies, emerging and transitional economies, global sustainability, technology and operations, global finance, positive organizational scholarship, tax policy, and accounting methods — provide further support and infrastructure.

Just as the multidisciplinary nature of the Ross School and the University of Michigan is a defining characteristic of this institution, so too is the degree to which faculty and doctoral students collaborate. Our faculty regard PhD students as colleagues. This environment proves rewarding, both professionally and personally.

I invite you to apply to our Doctoral Studies Program and hope to welcome you as a colleague in the near future.

Best wishes,

More

Wallace Hopp
Associate Dean for Faculty and Research
Alessi Professor of Business Administration
Professor of Industrial and Operations Engineering
Professor of Operations and Management Science

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Wallace Hopp // Senior Associate Dean for Faculty and Research, Alessi Professor of Business Administration, Professor of Industrial and Operations Engineering, Professor of Technology and Operations

As associate dean for faculty research, part of Wally Hopp's job is to oversee the Ross Doctoral Studies Program. It is a duty that comes with a great deal of pleasure. "Our students are really smart, really creative, and really interested in working on real problems with the potential to change the world," he says. Hopp's own research background gives him a particular appreciation of the Ross style of methodologically diverse, problem-driven research. After publishing widely on manufacturing and supply chains, he branched into hospital management and new product development by adapting the principles of operations management from manufacturing to knowledge-based work systems. Like many members of the Ross faculty, he regularly collaborates with students elsewhere in the University, in medicine, engineering, social science, architecture and design, and even music and dance. "At Ross, we are more driven by practical problems than any other top business PhD program. We're willing to reach out to other disciplines and to use methods that span the analytic, empirical, and behavioral spectrum to solve these problems," he says. "The talent and energy of our students, combined with our unique culture, makes the Ross Doctoral Studies Program something truly special."

Become a Distinguished Scholar ::

The reasons to choose the Ross School are abundant

We harbor a renowned business school within an internationally recognized university that is among the world leaders in funded research. This rich environment creates opportunities for self-directed, collaborative work and the funding to support it. Ross faculty are among the most influential in the world. Their research impacts the way business is taught and practiced on a global scale. Much of this research is conducted in collaboration with PhD students as part of the PhD training program.

The realms of theory and practice come together seamlessly in our Doctoral Studies Program. For researchers seeking to bring new discoveries to the world, the University's collaborative spirit is vital. For scholars looking to put their ideas into practice, the program is connected to an enormous network of business partners.

With a PhD in business administration, you will have the opportunity to influence both the academic and business sectors while advancing your career. A degree from the University of Michigan is recognized globally and guarantees that your credentials certify your scholarly abilities as a teacher, researcher, and colleague. Upon graduation, you will join a community of more than 40,000 Ross School alumni from all 50 states and 88 countries, and a network of half a million U-M alumni worldwide.

To get a sense of the vitality of the thought leadership of the Ross School, subscribe to Ross Thought in Action. This bimonthly resource for the business world and the media presents relevant research and ideas from Ross faculty.

www.bus.umich.edu/rossthought

SAMPLE OF RECENT PhD PLACEMENTS

Brigham Young University Cornell University

Dartmouth College

Duke University

Emory University

Georgia Institute of Technology

Harvard University

HEC Paris

Hong Kong Polytechnic University

Hong Kong University of Science and Technology

Indiana University

Korea Advanced Institute of

Science and Technology

London Business School

Massachusetts Institute of Technology

McGill University

National University of Singapore

New York University

Northwestern University

Peking University

Southern Methodist University

Stanford University

University of California Los Angeles

University of Chicago

University of Illinois

University of Maryland

University of North Carolina - Chapel Hill

University of Notre Dame

University of Pennsylvania

University of Texas - Austin

University of Toronto

University of Virginia

University of Washington

Washington University - St. Louis



ABOUT THE ROSS PhD::

The goal of our program is to prepare the faculty of the future for the world's top business schools. Our graduates use their research, discoveries, and insights — expressed through writing, speaking, and teaching — to shape the world of business. To accomplish this, we utilize coursework and directed research.

In keeping with the school's overall core values and strategy, the doctoral program has its foundation in:

- generating broad-based intellectual capital with impact
- providing innovative educational experiences
- offering co-creation opportunities with students as active participants
- connecting theory and practice with action-based learning

If you are passionate about exploring the intersection of academic discipline and business practice, we invite you to consider the Ross Doctoral Studies Program.



Professor and Chair of Strategy

Jim Westphal's research is socially driven. "I'm currently examining corporate governance, strategic leadership, and symbolic and institutional processes in organizations," he says. "I'm interested in social relations among corporate leaders and between leaders and external constituents of the firm, including financial market actors and other stakeholders. I look at how those relations influence strategic decision-making, corporate governance, and firm performance." Westphal points out that relationships also are at the core of the Ross PhD experience. "There is more informal interaction between faculty and students in different disciplines here (in colloquia, courses, dissertation committees, and many other contexts) than at just about any other university," he says. "As a result, students naturally develop richer interdisciplinary theories to explain business problems and develop original solutions to those problems. Ross students are well-trained in methodology and statistics. Developing interesting and counterintuitive answers to important questions using rigorous methodologies is what sets our students apart."

Our Community::

A Mentorship Philosophy

We nurture students who best fit our program's philosophy and supply them with the resources to succeed. The program's small size allows students exceptional access to faculty. Students work with faculty formally and informally as research assistants, beginning in the first semester. From there on, students have many opportunities to work closely with faculty as co-authors on papers that target top academic journals.

The program typically admits 16-20 students from a pool of 400-500 applicants. In the past five years, more than half of the students have been international, while about one-third have been women. Of domestic students, six percent have come from underrepresented minority groups.

The Ross PhD is rated among the top doctoral programs offered at the University of Michigan, and it has one of the highest rates of academic placement. In the past five years, 92 percent of Ross PhD graduates secured tenure-track faculty positions in universities around the world upon completion of their studies, including Cornell University, Harvard University, HEC Paris, Hong Kong University of Science and Technology, Massachusetts Institute of Technology, National University of Singapore, Northwestern University, Stanford University, University of Chicago, University of Pennsylvania, and many more. This high rate of success is a direct result of our hands-on approach to developing research skills and our outstanding teacher development program. Also, the program's small size allows faculty to have a more intimate working knowledge of students' capabilities, which they can then share with prospective employers.

Intellectual Challenge, Collegial Spirit

Students accepted into our doctoral program will find themselves in an intense academic environment that demands full-time commitment over a five-year period. Unlike an MBA program, which offers principles, tools, and techniques of immediate utility in the business world, the Ross doctoral program requires students to step back from the day-to-day business world to examine why that world works as it does — and to pose long-term questions that bridge the theoretical and practical.

A distinguishing feature of the Ross School is the collegial spirit and noncompetitive nature of the community. Students collaborate on projects and assist each other; joint research with faculty is expected. Our informal atmosphere and open-door policy encourage students to engage in conversation with faculty or continue seminar discussions with distinguished visitors beyond the allotted class time and space.

A Top Business School

The Ross School is a leader in programmatic innovation and action-based learning in business education. Ross stands out among the world's best business schools for the depth and breadth of its programs. In addition, the school is recognized by the Aspen Institute as one of the leading business schools in the world for integrating ethical, social, and environmental issues into its curriculum.

In addition to world-class academic departments in core business disciplines, the Ross School houses research institutes and centers that provide extraordinary thought leadership and learning opportunities. These include:

- Center for International Business Education and Research
- Erb Institute for Global Sustainable Enterprise
- · Office of Tax Policy Research
- Paton Center for Research in Accounting
- Tauber Institute for Global Operations
- · William Davidson Institute
- Zell Lurie Institute for Entrepreneurial Studies

A World-Class Facility

Fruitful, informal encounters that occur outside the class-room are essential to the culture of the Ross School. Accordingly, the heart of our campus is the Davidson Winter Garden, a glass-enclosed public space that facilitates gatherings of all kinds. Surrounded by Blau Auditorium, Seigle Cafe, and informal meeting spaces, the bright and spacious Winter Garden is the figurative and literal center of our collaborative learning community.

TECHNOLOGY Seamlessly integrated technology enables students and faculty to interact with one another on campus and with colleagues all over the globe. A high-performance computing services environment supports the use of cutting-edge research techniques. Services include financial data retrieval, programming development, statistical consultation, research computer account administration, research software support, and individual training, as well as workshops and online help resources.

SUSTAINABILITY The Ross School is among the world leaders in research and academic programming devoted to sustainable enterprise. Our facility was designed and built in accordance with the Leadership in Energy and Environmental Design (LEED) Green Building Rating System, and earned its silver designation. It incorporates many architecturally innovative and environmentally responsible features.

BEYOND BUSINESS A foundation of health and wellness is essential to meet the demands of business today. Och Fitness Center is open to full-time students, faculty, and staff. This state-of-the-art and professionally managed facility offers on-site, affordable access to top-quality equipment, programs, and instruction. In addition, Seigle Cafe offers fresh whole foods, many of which are raised and harvested locally.

The Resources of a Great University

The University of Michigan is highly regarded in many fields, including the social sciences, economics, psychology, sociology, and statistics. It also is home to the nation's preeminent academic social science laboratory, the Institute for Social Research; a superb College of Engineering; and highly ranked schools of law and medicine. The Ross School's doctoral program leverages the University's resources by allowing students to pursue coursework in other disciplines. This proves advantageous when they must possess the same skills and vocabulary as experts in these fields.

In recent years, the University has received nearly \$600 million in research expenditures, with almost 69 percent coming from the federal government. University research, from medical to social to cultural, is a major contributor to the state's capacity for growth and development. And through their teachers, U-M students often are among the first to learn the applications of such research findings.



"One of the main advantages of the Ross School is that it is part of the University of Michigan, a place where it is very easy for students to gain experience in inter-disciplinary social science research. There are few other universities that have such a vibrant intellectual community focused on basic social science research. Having some disciplinary training is becoming an important hiring consideration for other top business schools." Chris Marquis, MA '02/PhD '05 // Associate Professor of Business Administration. Marvin Bower Fellow: Harvard Business School

AREAS OF CONCENTRATION::

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- |22| Technology and Operations



Accounting::

Ross is the birthplace of modern accounting research. The program builds on this tradition by developing the next generation of academic leaders who will produce work of lasting importance at the nation's top research-oriented universities. Placements in the last three years include the University of Chicago, Cornell, Harvard University, Massachusetts Institute of Technology, and Stanford University.

A major strength of our program is its productive and highly regarded research faculty, who focus on issues of importance to the accounting and business communities. Our recent research topics include the impact of accounting information on capital markets and on the behavior of decision-makers within firms.

The Ross PhD program in accounting also is well-known for its emphasis on close faculty-student interaction. We only admit two or three students into the program each year. This fosters joint research and ensures a highly collegial environment.



"Michigan does an excellent job of preparing research-oriented faculty. The first major factor is the faculty's commitment to the PhD Program, whether taking the time and thought to help students build research skills and ideas, or by ensuring that the program gets resources such as offices near the faculty. The second factor is the quality of the students. The students, themselves, were helpful as we progressed through coursework and refined our research ideas. The use of research assistantships for funding also was valuable in developing my skills as a researcher." Judson Caskey. '06 // Assistant Professor, University of Texas Austin, McCombs School of Business

PROGRAM OF STUDY

Students devote the first two to three years to coursework, research projects, preparation for the preliminary exam, and development of a dissertation proposal.

Courses Entering students are expected to have completed courses in introductory finance, advanced-level financial accounting, and intermediate managerial accounting in addition to the school's required background and analytical tools courses.

All doctoral students majoring in accounting also are required to complete the following minimum course requirements:

- econometrics/statistics (3 courses)
- economics (2 courses)
- finance (2 courses)
- PhD seminars in accounting
- electives (normally fulfilled in economics, finance, statistics, or operations management)

Research The program requires two projects: a research proposal (at a minimum) completed in the first year and a small-scale study completed in the second year.

Preliminary Examination and Candidacy

After completing coursework and the first research project, students may take the preliminary written exam. They advance to candidacy by passing the exam and completing the second research project. The remainder of the program is devoted to the dissertation.





"Collaboration" is a buzzword on many campuses. But as an alumnus and faculty member, Greg Miller knows it's a way of life at Ross. "What makes Michigan special is how the faculty and students interact," he says. "PhD students are truly involved in the life of the department, providing great experiences and bringing energy to the faculty. That relationship is the heart of our PhD experience, and I believe it is unique among accounting programs." Miller calls his student experience "more than just a set of classes; it was an apprenticeship into being a scholar." Now, he is responsible for cultivating that experience for others. "What makes Ross students stand out is their passion for answering real questions in a way that adds value for researchers, students, and practitioners," he says. "The diversity of our people allows us to have rich discussions and investigations into many areas — providing true engagement without dogma." Miller spent 10 years on the faculty at Harvard before returning to Ann Arbor in 2008. His research focuses on financial communication — understanding how managers use financial information and the markets to communicate to outside stakeholders and opinion formers.

Business Economics:

To achieve and maintain high performance in today's competitive, global economy, firms need to make complex resource allocation and organizational design decisions, within the constraints of government regulations and stakeholder pressures. Understanding how the markets, institutions and policies shape, and are shaped by, the conduct and performance of firms provides exciting questions for research.

The Ross PhD in business economics is rooted firmly in economic theory and econometric methods. All students select a second field in economics such as industrial organization, international economics, public finance, development economics or labor economics (from the Department of Economics), and take a cognate class typically from within the business school (in finance, strategy, marketing, or any of the other areas).

Our research topics include understanding governance, innovation and other drivers of firm performance; transaction cost economics; international and domestic tax policy; entry and expansion into new markets; the economics of contracting; corporate environmental strategy; the effect of health and environmental regulation on firm competition and consumer welfare; antitrust or competition policy; and the drivers and effects of competition in international markets.



"I was looking for a program that would allow me to combine my passion for economics with business applications and do top research. The business economics program at U-M was a perfect fit. I received a very good training in both theory and methodology. The program was rigorous but flexible, so I could take courses in other departments such as economics or the School of Information. Compared to other schools I have been to, Ross has great resources like Kresge Library, which has a tremendous collection of research data. I still use my alumni access if I need anything. In addition, I met wonderful people. They first were my professors; now we are working together as colleagues. I could not wish for more." Renata Kosova, '04 // Assistant Professor of Strategy; School of Hotel Administration, Cornell University

PROGRAM OF STUDY

Courses Students devote the first two years of the program to meeting core and secondary requirements.

Core requirements include:

- microeconomic theory (2 courses)
- methods (Math for Economists and three econometrics courses)
- BE seminars (5)

Secondary requirements include courses in:

- a field of economics, such as international economics, industrial organization, or labor economics (2 courses)
- a cognate field (2 courses)
- additional courses as necessary

Research Students complete an empirical research project by the end of their third year. Work on the project begins the summer following the first year of study.

Preliminary Examination and Candidacy

Students pass written preliminary exams in business economics to advance to candidacy. The remainder of the program is devoted to the dissertation.



Francine Lafontaine examines how firms — especially franchised chains — organize their transactions, the public policies that affect those choices, and the performance consequences of those decisions. More recently, she has begun to examine business activities outside the U.S. "I have a strong interest in understanding the similarities and differences in how firms organize their activities in international markets," Lafontaine says, "and I plan to continue pushing the boundaries of what we know in this area." She praises her department's ability to do the same. "Our faculty are specialists in a variety of areas that are all relevant to business. The intellectual glue that holds us together is training in the tools of microeconomics analysis and a common approach to the research questions we consider, even as we diverge in terms of the type of issues that we pursue." She also welcomes such divergence in the student body. "It is very rewarding to work with students from a variety of backgrounds and different parts of the world, all coming together to form a vibrant learning community," she says.

Finance ::

Ross PhD students in finance have access to a large faculty whose research interests span the field's three main areas — corporate finance, asset pricing, and financial intermediation. Our faculty conduct research on a broad range of topics such as the design of corporate financial policies, financial intermediation systems, measurement of default risk, the organization of mutual funds, market microstructure, risk-return dynamics in the asset markets, and the role systematic irrationality plays in financial market behavior.

To complement its own courses, the finance program takes advantage of the University of Michigan's strengths in economics, engineering, and mathematics. Within Ross, two weekly finance seminars offer students exposure to the ideas of scholars from all over the world, and an informal setting in which to present their own research.

The Ross PhD program in finance emphasizes close interaction with faculty, both through research and teaching.



"Ross faculty are more engaged with PhD students than any other school I've seen. They are accessible and actively participate in the development of PhD students. By the time I finished, I was working on three papers with different faculty members. The benefits have been high, as success in academia is not just a matter of having an excellent foundation, like Ross provides, but it also is about learning the art of pushing knowledge forward through research."

Adair Morse, '07 // Associate Professor of Finance; Booth School of Business, University of Chicago

PROGRAM OF STUDY

Courses Students complete most coursework during the first two years of the program. Because classes in microeconomic theory, mathematical economics, statistics, and finance are among the first-year requirements, strong prior preparation is essential.

Courses during the second year comprise at least six electives (typically in math, economics, and econometrics) in addition to two finance courses. Students take two more seminars in finance during the third year.

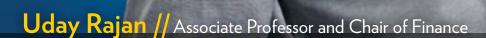
For the remainder of the program, students typically take at least one course per term in an area related to their research.

Research To become proficient in the art of research, students produce a research paper in the summer of each of the first two years under faculty guidance. They present their work in departmental seminars during the academic year. The Mitsui Life Financial Research Center awards \$2,000 for best performance in the first year of the program and \$3,000 for the best dissertation proposal in any given year.

Preliminary Examination and Candidacy

Exams, covering finance and related areas, typically take place at the end of the second year. Students advance to candidacy by passing the exams and completing the two research papers. The remainder of the program is devoted to the dissertation.





Since the onset of the global financial crisis, discussions among finance professors and students at Ross continue to be heated. And that's just the way Uday Rajan likes it. "A Ross PhD student never stops asking 'why.' We train each student to think through the cause-and-effect relationships behind real-world phenomena at an abstract level," he says. "The student then has the theoretical and empirical tools to provide insight into the causes of a phenomenon and prescribe improvements for the future." There is a close level of interaction between faculty and students at Ross, leading to several joint projects. "Our department spans all research areas in finance, be it asset pricing, corporate finance, market microstructure, or behavioral finance," he says. "We have a large mass of junior to mid-career faculty members, and interactions at seminars and workshops are very lively." Rajan currently is working on the behavior of subprime mortgage lenders leading up to the recent financial meltdown.

Management and Organizations ::

Understanding individual, group, and organizational dynamics is crucial to modern business. The management and organizations group brings an interdisciplinary approach to these issues through theoretical work, field and laboratory research, and archival studies. Our research spans micro-social psychological dynamics in organizations to macro-sociological /organizational theory topics.

Our doctoral students collaborate closely with our faculty and those involved in the school's executive education program. They also have at their disposal the University's extraordinary resources in social sciences. Several faculty hold joint appointments in social science fields at the University.

Interaction among scholars across social science disciplines is common. For example, the Interdisciplinary Committee on Organizational Studies brings together faculty and students from schools and departments across the University for weekly seminars. The Inter-University Consortium for Political and Social Research, based at U-M, offers summer methods institutes that our students frequently attend. Faculty strength in the burgeoning field of economic sociology has prompted U-M's Department of Sociology to organize a new area called economic sociology and organizations.



"I chose Ross because it's the best PhD program out there. It provides very rigorous theoretical and methods training, but everyone also cares about impact. It is a very personal experience, focused on bringing the best out of each student. There is a lot of individual freedom, but at the same time, a lot of faculty support and attention. The faculty help students discover their own passions and develop them into a unique research agenda."

Klaus Weber, '03 // Associate Professor of Management and Organizations;
Kellogg School of Management, Northwestern University

PROGRAM OF STUDY

Courses The first two years of the program include a sequence of four seminars on organizational behavior and theory and four terms of research methods courses, two of which must be quantitative. Students take additional graduate courses in their areas of interest.

Research Before the end of the second year, students complete a piece of empirical research under faculty quidance.

Preliminary Examination and Candidacy

The preliminary exam, covering organizational behavior, organizational theory, and research methods, takes place at the end of the second year. The remainder of the program is devoted to the dissertation.



As a recent recipient of the Ross Researcher of the Year award, Jerry Davis excels at asking the questions and pursuing the answers at the heart of important business problems. His current research focuses on effects that dependence on financial markets has had on corporations, banking, governments, and households within the United States. The research became the basis of his book *Managed by the Markets: How Finance Reshaped America* (2009). Davis also studies social movements, corporate governance, and social networks. But as a two-time recipient of the PhD teaching excellence award, Davis also excels at making good research a collaborative learning process. "The Ross doctoral program involves students as junior colleagues in all stages of research, from conceptualization and design through the review process. This leaves them much better prepared than graduates of other programs to undertake successful careers as faculty at top schools." Davis says it's the caliber of students in the program that allows this approach. "Ross PhD students are smart, engaged, hard-working, and entrepreneurial. They are good at bringing together the diverse resources available at a great university to pursue their own distinct research agendas."

Marketing::

As a field, marketing is concerned with developing an understanding of how consumers and producers interact in markets. As a department at Ross, marketing takes an interdisciplinary approach to developing this understanding, drawing from such disciplines as psychology, statistics, economics, and engineering to investigate important basic questions or applied problems.

Ross faculty and PhD students work collaboratively to publish cutting-edge research on such topics as consumer decision-making, sensory marketing, decision and cultural neuroscience, marketing resource allocation, brand portfolio management, new product development, advertising response models, and social media in leading academic journals in marketing and related disciplines.

At Ross we prepare our students to become research scholars at top research universities who further the field of marketing in both research and practice.



"I came to Ross because it is part of one of the world's leading research centers. With distinguished scholars in many disciplines who are doing exciting research, I gained exposure to powerful ideas and tools. I was able to mingle with outstanding students who combined intelligence with great values, and I learned from faculty at the forefront of their field. The PhD is a license to create, test, and disseminate new ideas. Ross provides an excellent environment to accomplish this."

Gerard Tellis, '83 // Professor of Marketing, Jerry and Nancy Neely Chair in American Enterprise, and Director of the Center for Global Innovation;

Marshall School of Business, University of Southern California

PROGRAM OF STUDY

Courses Students are expected to take a sequence of rigorous courses over the first two years as a prelude to conducting original dissertation research. These cover methodological foundations (e.g., econometrics and multivariate statistics), theoretical foundations (e.g., microeconomics and social psychology), and advanced marketing-specific seminars. The course sequence includes required courses and electives that speak to students' own interests. We encourage students to achieve master's-degree competency and certification in one of the basic cognates to marketing, such as psychology, economics, or statistics.

Research Aside from working directly with faculty from the outset, students complete a large-scale research paper by the end of their second year of the program, modeled on articles in leading academic marketing journals.

Preliminary Examination and Candidacy

A preliminary exam, which covers marketing-specific and other methodological topics, is given at the end of the second year of the program. Students are allowed ample preparation time, including meetings with individual faculty sharing their interests.

Fred Feinberg // D. Maynard Phelps Collegiate Professor of Marketing

"Ross students are self-starters with a passion for scholarly learning and getting knee-deep in cutting-edge research," says Fred Feinberg. The same can be said of the faculty. "We work shoulder to shoulder with students on research from the start. It's an intense, but unusually collegial, environment. Students pursue their ideas in collaboration with leading researchers at Ross and across the entire University." Feinberg lists the department's strengths as consumer evaluation and choice; attitude formation; information processing; behavioral decision theory; consumer satisfaction; and the modeling of pricing, advertising, and promotion through the use of lab, scanner, Web-based, and other data sources. Methodologically, Feinberg cites special strengths in experimental design, Bayesian econometrics, consumer neuroscience, dynamic and causal models, and experimental economics. His own research focuses on using statistical models to better understand human behavior, particularly sequences of choices in uncertain environments. Like other Ross faculty, he uses many tools to get a handle on what drives behavior. "One of our strengths is our emphasis on collaborative, cross-disciplinary research," he says. "We are fortunate to work with world-class scholars across the University, training our doctoral students to the highest levels of scholarship in core disciplines."

Strategy::

As the dominant social and economic organization of our time, the business corporation wields enormous power. The Ross PhD program in strategy prepares students for research and careers that address issues of corporate character, actions, and success. Drawing from behavioral sciences, the program examines the firm's internal organization, its relationship with external environments, its strategic decision-making processes, and its overall performance. Strategy research at the Ross School focuses on assessing fundamental, underlying differences among seemingly similar organizations.

Many business schools house strategy programs within a larger management department. At Ross, the program reflects the specific research interests of our faculty. At the same time, the program is highly interdisciplinary. Our students and faculty interact with students in other disciplines, including economics, sociology, psychology, and political science, through coursework, research projects, colloquia, and dissertation committees. Our students and facultyalso are tied to other programs across the University. We encourage students to conduct research with a broad spectrum of faculty, and we require them to choose a cognate field.



"At Ross, I had the opportunity to immerse in my primary field of interest and receive training in related fields, such as microeconomics and organization theory. This combination of depth and breadth is important because it prepares students to conduct research that is rigorous and applicable to a broader audience. Ross also excels at teaching students how to focus their research. A great PhD program is one that prepares students not only to formulate compelling answers to relevant research questions but also to identify relevant questions in the first place." Francisco Polidoro, '06 // Assistant Professor of Management; McCombs School of Business, University of Texas – Austin

PROGRAM OF STUDY

Our doctoral program includes formal coursework and collaborative research with faculty, followed by preliminary examinations and a dissertation.

Courses Students generally take two years, or four to five semesters, to complete the requirements of 16–20 courses. Courses, some of which are taken outside the Ross School, include:

- economics and organizational theory (5-6 courses)
- methods (5-6 courses)
- strategy applications (6 doctoral seminars, plus seminars in related areas)
- cognate applications (often business economics, management and organizations, psychology, or sociology)

Research By Jan. 1 of the third year in the program, students must complete a research paper. It may use existing data but also must demonstrate the student's capacity for original research.

Preliminary Examination and Candidacy

Written qualifying exams have two components: an area exam and a research methods exam. Both exams usually are taken during the summer after the second year of the program, after completion of all doctoral coursework. Successful completion of all courses and the comprehensive exams qualifies a student for candidacy. The remainder of the program is devoted to the dissertation. Strategy dissertations tend to have both theoretical and empirical components. Students generally develop a model of a phenomenon or problem and then collect data to test their theoretical predictions and generate implications of their study.



Gautam Ahuja takes pride in the diverse interests of Ross students and his role in helping fuse their education in strategy with other fields in the social sciences. "We try to develop students who are characterized by a strong discipline orientation but are fundamentally strategy scholars," he says. "This provides them with a competitive advantage against candidates from other schools. In the end, they combine the rigor of social science disciplines with the relevance of business applications of those ideas." Ahuja acknowledges the University of Michigan offers a welcoming venue. "Ross is at the center of an amazingly resource-rich, full-service university with an unusually strong history of cross-disciplinary intellectual exchange. Well-developed linkages between the Ross School and other parts of the University make this co-location of intellectual resources even more potent," he says. "Students who come here find depth in the form of the high-quality intellectual inputs you expect from a top-tier school and breadth in the form of the numerous paths they can take while still finding support for their interests." Ahuja's own interests focus on how firms create and exploit technology for competitive advantage.

Technology and Operations ::

Technology and operations is central to a wide range of global management challenges. Some examples include: how increasing globalization has placed supply chain management at the core of the world economy; how the rapid evolution of technology, from e-commerce to social media, is presenting enormous information technology and operations management challenges; and how sustainability concerns have raised operational efficiency as an urgent management concern.

At Ross, we study these important issues by using the overlapping heritages of operations management, organizational information technology, operations research, management science, and statistics. Students master rigorous, model-based, empirical, and experimental research methods and apply these to current research problems. Current research topics include: innovations in health care services; technology enabled business ecosystem innovation; sustainability in supply chains; global health care delivery; supply chain risk management; renewable energy management; analysis of customer reviews of experiential goods; revenue management for sports events; collaborative product design using social networks; dynamic pricing of limited inventories; information systems and environmental sustainability; transforming retail supply chains to serve webbased consumers; and online auctions in sourcing and multichannel retailing.



"Michigan's faculty are world class, publishing in the best journals and researching a diverse range of topics. Their accessibility, encouragement, and uncompromisingly high standards ensure superior training, enabling graduates to pursue productive academic careers at leading business schools. There also is an opportunity to teach an entire undergraduate course in operations management, which provides superb classroom experience." Rodney Parker, '02 // Associate Professor of Operations Management; Booth School of Business, University of Chicago

PROGRAM OF STUDY

Courses First-year courses focus on fundamental mathematical modeling and analysis tools, including dynamic programming, stochastic processes, game theory, and inventory theory. Courses in the second year allow students to apply these tools to technology and operations topics, develop areas of specialization, and round out their business education.

Research Students complete research papers at the end of each of the first two years of the program.

Preliminary Examination and Candidacy

Students must complete two preliminary exams, one at the end of each of the two years of coursework. The remainder of the program is devoted to the dissertation.





Izak Duenyas // John Psarouthakis Professor of Manufacturing Management, Professor and Chair of Technology and Operations, Professor of Industrial and Operations Engineering

"Ross students are among the brightest PhD students in the nation," says Izak Duenyas. "The program is extremely competitive, and we only admit students who have excellent technical training but also a natural interest in good business problems and using analytical and empirical models to discover interesting new insights about business issues." Duenyas' own research interest is supply chain management. His most recent focus is on how companies manage supply chain issues under information asymmetry. That applies to inventory management in the supply chain, sourcing, production, and outsourcing. Duenyas believes good academic research is driven by close collaboration with industry. "What sets the Ross PhD program in technology and operations apart from other programs is the problem-driven focus of the faculty and students," he says. "We work with companies continuously. Instead of dreaming up problems in our offices, we are interested in finding out the important problems that keep high-level executives awake at night. Most students work with multiple faculty members and on several papers at a time exploring different issues. This focus on real problems addressed by cutting-edge methodologies is what makes Ross one of the top programs in the world."

PROGRAM DETAILS::

A doctoral education is a once-in-a-lifetime investment that requires committing personal resources of time and talent. Although the intellectual stimulation and satisfaction are rewarding, balancing coursework, assistantships, research, and other responsibilities can be challenging. You must be self-directed, with a passion for learning, a love of thoughtful inquiry, and excellent communication skills. The intimate size of the Ross Doctoral Studies Program is designed to foster in-depth research and develop teaching abilities in close partnership with the school's renowned faculty.

Program Structure ::

TIME FRAME Doctoral study is a full-time, year-round enterprise. Accordingly, we only admit students who expect to devote their entire energies to the program. Although some students may finish more quickly, the program requires an average of five years to complete.

OPTIONS FOR STUDY Because the PhD Program is a component of the Horace H. Rackham School for Graduate Studies at the University of Michigan, students have full access to the resources, privileges, and obligations of the University community. However, the program is structured and supervised by the faculty and administration of the Ross School.

Students may choose from seven areas of concentration:

- accounting
- · business economics
- finance
- management and organizations
- marketing
- strategy
- technology and operations

It is important to choose your concentration carefully. Fields overlap, and interests may span several areas. If you are uncertain about which area best suits your career objectives, we urge you to speak with a member of the Doctoral Studies Program before you apply.

TEACHER DEVELOPMENT Because the graduates of our program typically pursue academic careers, and teaching at a top-notch school such as Michigan is demanding, we require our PhD students to teach an undergraduate course for one semester.

Our teacher development program guides students by providing special mentors and addressing instructional concerns through multiple avenues, including:

- lectures, workshops, and brown bag discussions
- · a teaching methodology course
- class observations of master teachers
- videotaping of instructional presentations
- experience with the latest technologies

The diverse techniques our faculty employ — from the case method to action-based learning to interactive video — provide a solid base for exploration.

Degree Requirements ::

COURSEWORK The first two years of the program usually are devoted to courses that satisfy University, school, and area requirements.

University Requirements Cognate courses: Two graduatelevel courses in University departments or colleges outside the Ross School. This requirement is designed to increase students' intellectual breadth. Students commonly elect cognate courses in economics, psychology, sociology, statistics, or engineering.

Ross School Requirements General background courses: Basic knowledge in accounting, finance, marketing, and organizational behavior. Students entering with an MBA usually will have satisfied this requirement. Others fulfill it through doctoral, MBA, or executive education courses.

Analytical tools courses: Mastery of statistical inference. Typically, students take a one-year, graduate-level sequence in statistical methods and probability through the University's statistics or economics departments. Individual areas determine the appropriate sequence and additional courses to prepare students for research in their fields.

Area Requirements Doctoral seminars: These sequences acquaint students with research literature and current themes and controversies in the field. Area seminars are supplemented by schoolwide doctoral seminars in research methods and research on decision-making under uncertainty.

RESEARCH Although coursework is important, the main goal of the doctoral program is to impart independent research skills. We achieve this under a mentorship model.

Research Assistantships Students work with faculty formally and informally as research assistants, beginning in the first semester.

Research Requirements Students must satisfy research requirements specified for their area.

TEACHER DEVELOPMENT Because doctoral students generally are preparing for demanding business school teaching careers, we offer rigorous training.

Teacher Development Program This required sequence is tailored to students' experiences.

Classroom Experience Students teach at least one undergraduate course in their specialty, often during the third year of doctoral study. Students are paid as teaching assistants for the courses they teach.

PRELIMINARY EXAMINATIONS Preliminary examinations are a prerequisite for candidacy. They are designed and administered by each area to evaluate a student's mastery of basic knowledge.

DOCTORAL DISSERTATION When students have fulfilled the above requirements, they are eligible to prepare a doctoral dissertation — an original and significant piece of research that is conducted and written under the guidance of a faculty committee. The average time from dissertation proposal to oral defense of the completed project is two years.



"Ross stands out due to the commitment of faculty to actively engage with students. I had the opportunity to work with

several professors on joint research, which really developed my research capabilities. Co-authorship opportunities are keys to success as a PhD, and Ross faculty have a strong track record of this. Two of the papers I started as a PhD student have already been published — a great start to my vita."

Paige Ouimet, MBA '02/PhD '09 //

Assistant Professor of Finance; Kenan-Flagler Business School, University of North Carolina – Chapel Hill

Admission::

CRITERIA We rank creativity, the capacity for independent thinking (demonstrated through work or research), and excellent academic skills high on our list of qualifications. We also consider high scores on standardized tests, fit with faculty research interests, and contribution to the diversity of the student community. All students must possess a bachelor's degree from an accredited college or university and, through previous courses or other means, demonstrate working knowledge of college-level algebra, calculus, and intermediate microeconomics. Accounting and marketing students also must demonstrate proficiency in linear algebra and advanced calculus. An MBA or master's degree in an allied field may be helpful but is not required. It will not shorten the time in the program. We especially invite applications from qualified students with nontraditional backgrounds, foreign students, women, and members of underrepresented racial and ethnic groups.

APPLYING TO THE PROGRAM The Ross School and the Horace H. Rackham School of Graduate Studies at the University of Michigan jointly administer application to the PhD program in business administration through a single submission. The application and most of the related credentials are submitted online. As a part of the application, individuals must designate a single area of study from among the seven areas offered by the Ross School.

You will find detailed information regarding the application process, our faculty and their research, and our seven academic areas at www.bus.umich.edu/phd.

FINANCIAL AID The Ross School provides meritbased financial aid to nearly all students admitted to our doctoral program. We provide five years of funding, which includes a full tuition waiver, health insurance, and a generous stipend package that combines fellowship funding and a graduate assistantship. We do not require an additional application for financial aid.

The Ross School provides assistantships year-round. Students spend three-and-a-half years as a research assistant. These assistantships, which typically require 10-12 hours of work per week, are not just a source of financial assistance; they are the centerpiece of the program's mentorship philosophy. In addition to research, all students spend at least one term as a graduate student instructor, typically during their third year.

We encourage students to apply for additional external sources of support when available. We also nominate students for University fellowships when they are eligible.



"People at Ross are accessible — they're working on campus and they're willing to talk. Plus, they're actively doing research. I really benefitted from the research experience — working with faculty, giving presentations on my own work, and getting feedback. The people I met at Ross are the ones I still trust to read early drafts of my ideas. And I'm working with them on new projects." Anne Fleischer, '08 // Assistant Professor of Strategic Management; Rotman School of Management, University of Toronto

Class Profile::

NUMBER OF STUDENTS IN PROGRAM Approximately 100

AVERAGE TIME TO COMPLETE THE PhD Five years

SELECTIVITY

Acceptance rate of about 5%

ACCEPTED STUDENT PROFILE

• Age range: 22-39 at enrollment

Average undergraduate GPA: 3.65

Average GMAT score: 720

Average GRE scores: verbal - 162, quantitative - 163

- Minimum TOEFL requirements: 106 iBT, with scores of 26 or higher in each section
- Undergraduate majors include: business, economics, engineering, English, history, math, political science, psychology, and sociology
- Many have post-graduate business experience
- 60% have a relevant master's degree
- 55% are international students
- 33% are female
- •5% are from underrepresented minority groups



"The Ross PhD Program does a fantastic job of providing students with the methodological skills and training to tackle issues of prime concern to top managers across industries. We worked closely with faculty on cross-disciplinary topics and were treated on par with faculty with respect to the resources provided for research and teaching. I was excited to be part of a highly intellectual and culturally diverse community comprising faculty, researchers, and student colleagues." Ravi Subramanian, '05 // Ravi Subramanian is the Steven A. Denning Associate Professor and Faculty Director of the Steven A. Denning Program in Technology and Management at the Ernest Scheller Jr. College of Business at Georgia Tech.

Ann Arbor::

Cosmopolitan Living Without the Hassle

As home to one of the greatest universities in the world, Ann Arbor is a city that is both intellectually robust and economically resilient. The University of Michigan attracts global leaders in all fields, including medicine, life sciences, law, engineering, public policy, and education. Twenty percent of Ann Arbor residents speak a language other than English at home.

Rich with history and tradition, U-M and Ann Arbor offer a classic college-town experience, complete with all the exuberance that comes with a Big Ten campus. There are restaurants for every budget and taste, music for fans of concertos and garage bands, and pleasures for lovers of both sports and the arts. It doesn't take long to realize that Ann Arbor naturally melds high culture and popular culture.

Public transportation is accessible and often free for students; several area attractions are within walking distance of campus, and Detroit Metro Airport is about 30 minutes from downtown Ann Arbor.

THE ARTS Ann Arbor enjoys an international reputation for its robust music and performing arts scene. In addition to bringing the Martha Graham Dance Company and Wynton Marsalis to Ann Arbor, the University Musical Society also hosts the only U.S. residency of England's Royal Shakespeare Company. The University of Michigan Museum of Art houses dramatic new galleries that highlight pieces drawn from the museum's collection of more than 18,000 works.

FOOD You can find whatever you want to eat (or cook) in Ann Arbor. Quality ethnic cuisine abounds, and there's no shortage of high-end restaurants. A word to the wise: If you leave Ann Arbor without going to Zingerman's Delicatessen, you'll never have the pleasure of discovering everything a sandwich can do for you.

OUTDOOR RECREATION Those who love the great outdoors can bike along more than 60 miles of scenic trails, kayak down the Huron River, get lost in the Nichols Arboretum, or take advantage of Ann Arbor's many golf courses.

"2ND MOST-EDUCATED CITY IN AMERICA"

- U.S. NEWS AND WORLD REPORT 2011

16% of A² was born outside the u.s.



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Senior Associate Dean for Faculty Research, Alessi Professor of Operations and Management Science, Professor of Technology and Operations

Brian Jones

Director, PhD and Research Administration

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Student Services Associate/Financial Aid

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www.bus.umich.edu/phd



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