

Roads to Business

FOR NORTHWESTERN UNDERGRADUATES

Table of Contents

Many Paths to Business at Northwestern	. 1
Academics	. 2
Majors and Minors Particularly Relevant to Business	. 2
Economics Major and Minor	. 2
Industrial Engineering and Management Sciences Major	. 2
Learning and Organizational Change Major	.3
Mathematical Methods in the Social Sciences Adjunct Major	.3
Harvey Kapnick Business Institutions Program Minor	۷.
Certificates Open to All Undergraduates	. 5
Kellogg Certificates for Undergraduates	.5
Integrated Marking Communications Certificate	.5
Undergraduate Leadership Certificate	.6
For-Credit Internships	. 6
Chicago Field Studies Internships	.6
Other Good Prebusiness Studies	. 7
Programs for All McCormick School Students	. 7
Business Enterprise Certificate	. 7
Walter P. Murphy Cooperative Engineering Education Program	. 7
Internships	. 8
Business-Related Extracurricular Activities	۶

No single path to a business career suits Northwestern's extremely diverse group of students. For this reason the University offers a range of opportunities—from deep quantitative training in finance and operations to applied majors that can be combined with business courses such as accounting, marketing, and business communications. There is no basic business major at Northwestern, but there are many programs that will give you the training you need to get a successful start in the business world.

Strongly quantitative students may be drawn to programs like industrial engineering and management science or the Mathematical Methods in the Social Sciences Program. Those fascinated by organizations may want to consider the learning and organizational change major. Those interested in working for employers who deliver complex information may study communication or journalism. Those who love the social sciences may head into business through majors like economics and psychology. And if you're just entering Northwestern and don't know yet which of our educational programs will suit you best, the University has many advising resources to help you choose.

No matter what major you decide on, you can also acquire useful business understanding and skills through the Harvey Kapnick Business Institutions Program or the highly quantitative Kellogg certificates in financial economics and managerial analytics.

Northwestern matches its prebusiness academic options with opportunities for you to apply and practice what you learn. For-credit internships and practicums are performed in serious business settings. In the wide array of student organizations, you can take leadership roles—making decisions, implementing innovations, and responding to the choices you've made—that will be significant advantages when you apply for that first job in business.

Many Northwestern undergraduates interested in business careers go directly from Commencement into the business world, not stopping to get an MBA first. This brochure gives you an overview of the prebusiness opportunities offered at Northwestern that will help you to follow in their footsteps.

Whatever your path, make sure to take advantage of University Career Services as early as your freshman year. Its staff and resources will help you assess, explore, and choose your future career goals and act on them. See www.northwestern.edu/careers.

Academics

Majors and Minors Particularly Relevant to Business

Economics Major and Minor

Judd A. and Marjorie Weinberg College of Arts and Sciences www.econ.northwestern.edu

Northwestern's economics department is ranked one of the world's best, and economics is the most popular major at Northwestern, particularly among students preparing for business careers. Many students combine other majors in any Northwestern school with an economics major or minor. Many graduates go into finance and consulting, but every field of business is well represented.

Students start studying economics with introductory macro- and microeconomics. The major requires introductory, intermediate theory, field, and related classes, including calculus and statistics. Calculus and statistics are vital to the intermediate courses in econometrics, which look at how theory is tested against data, and in intermediate microeconomics and macroeconomics, which cover the formal tools used in upper-level field classes. Students consult with department advisers to choose field courses that fit their needs; these include corporate finance, money and banking, transportation, economics of nonprofits, environmental and natural resource economics, game theory, industrial organization, regulation, and international finance and trade.

The minor requires statistics, calculus, most of the core classes, and three field classes.

The major and minor are structured so that students can make progress while working around requirements for other programs, doing internships, or studying abroad. All of the core classes as well as a diverse group of upper-level field classes are offered every term.

Industrial Engineering and Management Sciences Major

Robert R. McCormick School of Engineering and Applied Science www.iems.northwestern.edu

Students in the McCormick School's industrial engineering and management sciences major take a range of courses that develop their understanding of business along with their analytic skills. The curriculum focuses on probability, statistics, and mathematical modeling, particularly in economics and decision analysis. Graduates present potential employers with not only the exceptional analytic capabilities expected of engineers but also an understanding of the business and organizational implications of engineering decisions and the nature of technological development. They have the skills needed to create, design, analyze, and improve the operation of complex financial, information, production, logistics, transportation, and other organizational systems.

Many industrial engineering graduates eventually assume management positions. In preparation for such careers, students take full advantage of the additional academic, business, and leadership programs available at Northwestern: a major or a minor in economics, the business enterprise certificate for engineers, the Undergraduate Leadership Program, the Business Institutions Program, study abroad, and the McCormick School's co-op program. The two-quarter senior design project allows students to integrate all of these experiences.



Learning and Organizational Change Major

School of Education and Social Policy www.sesp.northwestern.edu/ugrad/learning-and-organizational-change

The learning and organizational change major in the School of Education and Social Policy explores how organizations and the individuals within them use knowledge and learning to create and respond to change within their environments. The interdisciplinary curriculum addresses forces of change such as technology, globalization, and demographics by drawing on theories and applications of learning, innovation, and knowledge sharing; current research in learning sciences and organization behavior; and interdisciplinary perspectives, including those of economics, anthropology, psychology, sociology, and computer science.

LOC students acquire knowledge, skills, and flexible ways of thinking and working with real-world problems that are transferable to many industries and professions in both nonprofit and for-profit settings. Students interested in business often seek their first jobs in consulting, e-learning development, instructional design, change management, marketing, and management rotation programs. Many gain valuable work experience upon graduation and then pursue graduate studies in education, business, psychology, or law.

Students take core courses in life span development, research methods, and statistics and then have the flexibility to tailor the program to their interests. Many choose an interdisciplinary specialization, double major, or minor along with the LOC focus. Classes encourage team projects, presentations, frequent discussions, and reflection. All LOC juniors complete a one-quarter, four-credit practicum that includes social science research. The school's Summer Field Studies Program in San Francisco, Washington, DC, and Chicago fulfills practicum requirements and is open to all Northwestern students.

Mathematical Methods in the Social Sciences Adjunct Major

Judd A. and Marjorie Weinberg College of Arts and Sciences www.mmss.northwestern.edu

Modern social, behavioral, managerial, and policy sciences use mathematics and statistics both as languages and as methods of abstraction and analysis. Most traditional undergraduate programs in the social sciences do not incorporate mathematical approaches in an organized and consistent manner. Students who graduate with an adjunct major from the Mathematical Methods in the Social Sciences Program in Weinberg College are actively sought by employers because of their systematic preparation in mathematical modeling of social science situations.

MMSS students pursue a double course of study: a common mathematics and quantitative methods sequence and a social science major of their choice. The first two years require a coordinated sequence of 12 one-quarter courses (2 per quarter) that rigorously apply mathematics and statistics to the social sciences. Open only to MMSS students and taught at an advanced level, these courses address both theory and analysis of concrete data, stressing historical context, the data to be explained, policy questions, and the mathematical implications. Students complete the requirements of their chosen social science major during their junior and senior years, including the yearlong senior seminar in which they work closely with the seminar leader and a social science faculty adviser to formulate, research, and write independent theses.

The breadth of training gives MMSS students many career options. Many graduates join firms specializing in consulting, financial services, or computing, while others pursue graduate study in such fields as economics and other social sciences, law, medicine, or public policy.

The program admits approximately 30 freshmen and 30 sophomores each year. A strong high school curriculum, including a year of calculus, is required for admission.

Harvey Kapnick Business Institutions Program Minor

Judd A. and Marjorie Weinberg College of Arts and Sciences www.wcas.northwestern.edu/bip

The minor, offered by Weinberg College's Harvey Kapnick Business Institutions Program, is open to any Northwestern undergraduate. The program offers students an opportunity to thoughtfully investigate business from cultural, political, philosophical, literary, and social approaches. It provides a broad multidisciplinary perspective rather than narrowly conceived preprofessional training. Recent graduates have gone on to jobs in finance, banking, consulting, marketing, the entertainment industry, nonprofits, and Teach for America; some have started their own businesses.

Students take four prerequisite courses in economics, regulation, and organizations and must complete two of these before declaring the minor. Six additional courses are required for the minor. One of these is a business tools course, either Marketing Management or Accounting and Business Finance, and the other five are electives chosen from other Northwestern areas—including anthropology, art history, communication studies, dance, economics, general liberal arts, business German, history, industrial engineering, integrated marketing communications, learning and organizational change, philosophy, political science, radio/television/ film, and sociology. Electives may also be chosen from other BIP courses. These include professional linkage seminars and special topics courses in investment banking, consumer behavior, theories of investing, and the business of fashion. The professional linkage seminar is designed to bridge the academic and the "real" worlds; it is taught by people highly experienced in their fields, often features guest speakers, and has real-world-based assignments and final projects.

Certificates Open to All Undergraduates

Kellogg Certificates for Undergraduates

J. L. Kellogg School of Management www.kellogg.northwestern.edu/certificate.aspx

The Kellogg School of Management's Certificate Program for Undergraduates prepares students for careers in financial services, consulting, and other data-driven professions, as well as for advanced



study in economics, business, law, and other fields. Students develop critical thinking skills, gain exposure to business applications and analytical models, and learn about strategic business analysis. The courses are quantitatively oriented and taught by Kellogg professors. Recent alumni work primarily in finance and consulting but also in academic research, government, and not-for-profit organizations. A program career adviser provides career planning and support to each student.

Students choose from four-course certificates in either financial economics or managerial analytics. The financial economics certificate teaches skills primarily

related to corporate finance, capital markets, and securities pricing. The managerial analytics certificate teaches the business analytic models that guide strategic and tactical decision making.

Any Northwestern student who has taken certain prerequisite courses in advanced calculus and linear algebra, probability, econometrics/statistics, microeconomics, and optimization may apply for admission. About 70 percent of students apply as sophomores and participate as juniors; the rest apply as juniors for senior-year participation. Admission decisions are based on the grade point average overall and in prerequisite courses, a personal essay, and faculty recommendation letters.

Integrated Marketing Communications Certificate

Medill School of Journalism, Media, Integrated Marketing Communications www.medill.northwestern.edu/imc/undergrad.aspx

Integrated marketing communications education was pioneered at Medill, and an undergraduate certificate program has been available since 2008. The five-course certificate program prepares students for entry-level jobs in traditional and interactive marketing communications. Certificate alumni work nationwide in agencies, media firms, corporations, and nonprofits in advertising, interactive marketing, marketing research, and communications.

The program is open to students from any Northwestern school at any time in their undergraduate careers. The two introductory courses (Consumer Insight and Introduction to Integrated Marketing Communications) are open to all students; the advanced electives are open only to students admitted to the program. An application is required once three prerequisites (two economics courses and another course chosen from an approved list) and the two introductory courses have been completed. Acceptance is guaranteed to students meeting minimum grade and prerequisite requirements.

Undergraduate Leadership Certificate

Cross-school program

http://lead.northwestern.edu/pages/programs/certificate.html

This certificate is open to all Northwestern undergraduates. Its process of ongoing collaboration among program students and faculty prepares students to become leaders on campus, in the community, and in their professions. Focusing on critical leadership assets such as asking powerful questions, inspiring, mobilizing, navigating change, collaborating, and being resilient, participants develop a personal leadership foundation on which to build throughout their lives.

The certificate requires the foundation course, Paradigms and Strategies of Leadership; a field study where students propose, design, and conduct leadership projects; and an elective chosen from classes in entrepreneurship, organizational behavior, public policy, international affairs, and civic engagement.

For-Credit Internships

Chicago Field Studies Internships

www.wcas.northwestern.edu/cfs

The largest academic internship program on campus, Chicago Field Studies every year serves more than 240 students from all schools and majors. The Weinberg College program has helped students to find internships in the Chicago and Evanston communities for more than 40 years. Full- and part-time options allow students to focus only on an internship and related CFS courses for a quarter or to



participate in an internship while taking other Northwestern classes. Juniors and seniors may participate full-time, while part-time programs may be done as early as sophomore year.

Each quarter around 60 students are selected competitively for CFS programs. CFS helps them identify and apply for internships that match their career interests. Internship fields include banking, finance, trading, e-commerce, consulting, advertising, market analytics, public relations, sports marketing, international relations, health, museums, education, arts outreach and administration, legal advocacy, public policy, criminal justice, government, urban planning, environment, sustainability, and more. While interning, students take on-campus

CFS seminars whose readings and discussions are connected to the work, the organizational culture, and current issues encountered on the job. These seminars are limited to 15 students to maximize each student's opportunity to share experiences and ideas.

CFS operates year-round including summer, which is the most competitive time for internships in many fields.

Other Good Prebusiness Studies

No single program of study is suited to all prebusiness students. Employers are looking for the ability to think critically about and to make sense of the diverse and changing situations faced in business. What is most important is developing the ability to pick up ideas quickly, think them through, and grasp and extend their logical structures. Every major involves learning about complex relationships, assimilating large amounts of information, identifying and interpreting the central issues, and then using or presenting what one has learned. You'll be well prepared for the job market and the working world if you follow your intellectual passions and major in something you love; perhaps supplement your major with a business-related minor, certificate, or applied course work; gain real experience from internships and extracurricular involvements; and are prepared to explain your choices.

Programs for All McCormick School Students

Business Enterprise Certificate

www.mccormick.northwestern.edu/undergraduates/curriculum/non_degree_programs/business_enterprise_certificate.html

Although many engineering students ultimately pursue an MBA, many of those who aim to have business careers want to work before returning to school. The Business Enterprise Certificate Program gives them the necessary orientation through its required business courses and work experience. It is open to students in any McCormick bachelor's degree program. Students intending to pursue the certificate submit a "declaration of intent" form that is available on the McCormick website.

Students in the Walter P. Murphy Cooperative Engineering Education Program (see below) must take two additional courses for the certificate; their work experience fulfills the internship requirement. Non-co-op students must take four extra courses and complete technical internships. To complete the certificate, students must submit acceptable reports on the work experience and finish their McCormick BS degree.

Walter P. Murphy Cooperative Engineering Education Program

www.mccormick.northwestern.edu/mcd

Students in all McCormick departments can gain on-the-job experience through the Walter P. Murphy Cooperative Engineering Education Program. Co-op students alternate terms of study at Northwestern with terms of paid engineering work, completing the bachelor's degree in five years. The co-op coordinator makes every effort to secure interviews for the students so that their co-op work assignments relate to their professional objectives.



Internships

Many Northwestern degrees include internships as part of the curricula—for instance, practicums in the School of Education and Social Policy and a journalism residency in Medill. Students in other fields are strongly advised to seek real-world experience through internships and summer employment. Such experience cannot be stressed enough when it comes to a job search. Internships teach you about business culture and how to work reliably within an organization. They show that you planned your future seriously and help you to evaluate what you would like to do. Many students have been hired for full-time postgraduate jobs by their internship employers.

University Career Services (www.northwestern.edu/careers) is your best source for advice on internship searches. You should consult with its staff early and often, beginning with attending one of its information sessions.

Business-Related Extracurricular Activities

Classes and grades are important, but once you reach the interview stage in your job search, you will find that extracurricular activities count as well. Extracurricular activities help potential employers evaluate your personality, interests, and leadership skills.

When it comes to choosing extracurricular activities, a deep commitment in a significant role with just a few or even one group is more impressive than a host of groups where you had at best minor roles. Within any organization, it's good to show that you can be both part of an effective team and take initiative on your own. Northwestern is full of large and complex student-run organizations that offer experience with business-related tasks, particularly allocating budgets, advertising and promoting activities, planning events, and organizing people. Northwestern students also can find many volunteer opportunities in the community. A place to start looking for ways to become involved on campus and in the community is the Norris Center for Student Involvement (www.norris.northwestern.edu/csi), located on the third floor of Norris University Center.





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