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LeBow College of Business: School of Economics

The LeBow College of Business celebrated its strengths in economics teaching and research by elevating its economics department into a School of Economics. The School of Economics continues LeBow’s commitment to offering a curriculum that is current and challenging and to conducting research that aligns with business trends and informs policy makers.

Economics is at the root of business decisions, government policy making and global relations. As a course of study, it can lead to diverse career opportunities. A degree in economics provides students with a robust understanding of the workings of the market system, major economic institutions, economic policy, and development. The School of Economics boasts an award-winning faculty who are leading researchers and dedicated teachers. The world-renowned faculty members take a hands-on approach to teaching, research and mentoring students.

Majors

• Economics (MSECON) (p. 2)
• Economics (PhD) (p. 5)
• Economics and Computer Science (MSECCS) (p. 7)

Minors

• Economic Data Analysis (p. 8)
• Economics (p. 8)

Economics

Degree Requirements

Core Requirements

Select one course from each of the following sets:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON 540</td>
<td>Intro to Econometrics and Data Analysis</td>
<td>3.0</td>
</tr>
<tr>
<td>STAT 610</td>
<td>Statistics for Business Analytics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Graduate Assistantships and Financial Aid

Admission Procedures

The MS in Economics program admits students each fall. To be considered for admission, the completed application must be received by the LeBow College of Business Office of Graduate Admissions. Admissions are considered on a rolling basis and will remain open until all available slots are filled. It is the applicant's responsibility to ensure that all transcripts, test scores and letters of recommendation, as well as the application form and the personal statement, are received by LeBow College Business, School of Economics.

Degree Requirements
or STAT 931 Statistics for Economics
ECON 548 Mathematical Economics 3.0
or ECON 902 Mathematical Economics
ECON 550 Econometrics 3.0
or ECON 940 Econometrics I
ECON 560 Time Series Econometrics 3.0
or ECON 941 Econometrics II
ECON 610 Microeconomics 3.0
or ECON 910 Advanced Microeconomics I
ECON 614 Macroeconomics 3.0
or ECON 920 Advanced Macroeconomics I

Economics electives *
Complete 18.0 additional credits from the following: 18.0

- ECON 601 Managerial Economics
- ECON 616 Public Finance and Cost Benefit Analysis
- ECON 630 International Economics
- ECON 631 International Macroeconomics
- ECON 634 History of Economic Analysis
- ECON 639 Applied Industrial Analysis
- ECON 644 Trade Policy: Theory and Evidence
- ECON 650 Business & Economic Strategy: Game Theory & Applications
- ECON 661 Health Economics
- ECON 662 Economic Analysis of Health Systems
- ECON 664 Special Topics in ECON
- ECON 700 Economics Seminar
- ECON 902 Mathematical Economics
- ECON 910 Advanced Microeconomics I
- ECON 911 Advanced Microeconomics II
- ECON 920 Advanced Macroeconomics I
- ECON 921 Advanced Macroeconomics II
- ECON 925 Macroeconomic Dynamics
- ECON 940 Econometrics I
- ECON 941 Econometrics II
- ECON 942 Applied Microeconometrics
- ECON 950 Industrial Organization I
- ECON 951 Industrial Organization II
- ECON 959 Industrial Organization Seminar
- ECON 960 International Trade
- ECON 961 Empirical International Trade
- ECON 962 Open Economy Macroeconomics
- ECON 966 International Trade Seminar
- ECON 979 Open Economy Macro Seminar
- ECON 980 Game Theory
- INTB 632 Economic Analysis of Multinational Corporations

Business electives
Complete 6 additional credits from the list of Economics electives or the list below: 6.0

- BLAW 620 Legal Aspects of Employment
- BUSN 501 Measuring and Maximizing Financial Performance
- FIN 601 Corporate Financial Management
- FIN 602 Advanced Financial Management
- FIN 622 Financial Institutions & Markets
- FIN 635 Entrepreneurial Finance
- FIN 640 Mergers and Acquisitions
- FIN 648 International Financial Management
- MGMT 602 Innovation Management
- MKTG 630 Global Marketing
- OPR 601 Managerial Decision Models and Simulation
- OPR 620 Operations Research I
- OPR 622 Operations Research II
- OPR 624 Advanced Mathematical Program

Experiential Learning Requirement 3.0

BUSN 615 Graduate Internship

INTB 790 International Business Seminar and Residency

MGMT 715 Business Consulting

Total Credits 45

* Students who complete ECON 911, ECON 921 and ECON 941 may take the following courses during their second year provided they have the required prerequisites and approval from the Program Coordinator: ECON 925, ECON 942, ECON 950, ECON 951, ECON 959, ECON 960, ECON 961, ECON 962, ECON 969, ECON 979

Sample Plan of Study

First Year

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
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<tbody>
<tr>
<td>Fall</td>
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<tr>
<td>Winter</td>
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<tr>
<td>Spring</td>
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<td>Summer</td>
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First Year (Part-Time)

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<th>Semester</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>Fall</td>
<td>6</td>
</tr>
<tr>
<td>Winter</td>
<td>6</td>
</tr>
<tr>
<td>Spring</td>
<td>6</td>
</tr>
<tr>
<td>Summer</td>
<td>6</td>
</tr>
</tbody>
</table>

Second Year (Part-Time)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>3</td>
</tr>
<tr>
<td>Winter</td>
<td>3</td>
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<tr>
<td>Spring</td>
<td>3</td>
</tr>
<tr>
<td>Summer</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 45

Centers and Facilities

This marriage of academic rigor and practical applications can also be seen in the development of the College's Centers of Excellence. Centers of Excellence are catalysts for research and innovation, think tanks for nationally significant trends and issues, and incubators for opportunities in business and integration among disciplines. LeBow's Centers of Excellence provide students with meaningful experiential learning and impact the performance of business in our region and around the world. As part of the curriculum, Drexel LeBow MBA students will take courses which reside in the centers and will see firsthand how practical learning is applied.

The Centers are:

- Sovereign Institute for Strategic Leadership (https://www.lebow.drexel.edu/faculty-and-research/centers/sovereign-institute-for-strategic-leadership/)
- Center for Corporate Governance (https://www.lebow.drexel.edu/faculty-and-research/centers/corporate-governance/)
- Dana and David Dornsife Center for Experiential Learning (https://www.lebow.drexel.edu/about/experiential-learning/)
Facilities
LeBow College of Business opened its 12-story, 177,500-square-foot home, Gerri C. LeBow Hall in September 2013. Located in the heart of Drexel University campus, it forms a gateway to Drexel and serves as a backdrop to the historic statue of A.J. Drexel (Moses Ezekiel, 1904).

The building’s organization unites the school’s various constituencies around a five-story-high atrium ringed by 15 classrooms of varying sizes and configurations, including a finance trading lab. The atrium is immediately accessible from main entrances at the three corners of the building. An open stair within the atrium leads to a 300-seat auditorium, 100-seat lecture hall, and a behavioral studies lab one floor below. Other amenities consist of 19 collaboration rooms, 3,500 square feet of student lounges and quiet study areas, a bank of four elevators and full ADA accessibility, and an event space with catering capacity. The building’s upper floors contain faculty and staff offices interspersed with seminar and conference rooms.

Gerri C. LeBow Hall brings together faculty, students, and staff in a state-of-the-art building on the University City campus. Please visit the LeBow College of Business webpage (http://www.lebow.drexel.edu/about/campuses/philadelphia/gerri-c-lebow-hall/), the Behavioral Lab webpage (https://www.lebow.drexel.edu/about/campuses/behavioral-lab/), the Finance Trading Lab webpage (https://www.lebow.drexel.edu/about/campuses/finance-trading-lab-and-bloomberg-terminal-room/), and the SAP Next-Gen webpage (https://www.lebow.drexel.edu/about/campuses/finance-trading-lab-and-bloomberg-terminal-room/) to learn more about Gerri C. LeBow Hall.

School of Economics Faculty
Marco Airaudo, PhD (University of Pennsylvania Philadelphia). Associate Professor. Computational economics, international economics, macroeconomics and monetary economics.

Patricia Awerbuch, MBA (Drexel University). Associate Clinical Professor. Distance learning, environmental economics.

Richard Barnett, PhD (University of Minnesota). Clinical Professor. Economic theory, macroeconomics.

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Maria Olivero, PhD (Duke University). Associate Professor. Open Economy macroeconomics, mathematical and quantitative methods, macroeconomics.


Tristan Potter, PhD (Boston College). Assistant Professor. Macroeconomics, labor.

Konstantinos Serfes, PhD (University of Illinois at Champaign-Urbana). Professor. Industrial organization; microeconomics; game theory

Ricardo Serrano-Padial, PhD (University of California at San Diego). Associate Professor. Microeconomics theory, information economics with applications in finance, macroeconomics and industrial organization.

Mark Stehr, PhD (University of California at Berkeley) Director School of Economics. Professor. Health economics; health behaviors; public finance; public policy.

Constantinos Syropoulos, PhD (Yale University) Trustee Professor of International Economics. Professor. International trade, political economy, applied microeconomics.

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Chiou-shuang Yan, PhD (Purdue University). Professor Emeritus. International economics, input-output analysis.
Economics

Major: Economics
Degree Awarded: Doctor of Philosophy (PhD)
Calendar Type: Quarter
Total Credit Hours: 60.0 (Post-Master's degree) or 90.0 (Post-Bachelor's degree)
Classification of Instructional Programs (CIP) code: 45.0603
Standard Occupational Classification (SOC) code: 19-3011

About the Program

Drexel's PhD program in Economics prepares economists for academic research as well as careers in government or industry by providing a solid background in economic theory, quantitative analysis, and analytical tools at the advanced level. Each year a relatively small number of PhD students are accepted into the program, which allows for a collegial environment where the PhD students interact with faculty on a daily basis. Requirements for the MS in Economics program are satisfied if the coursework associated with the first and second years of the PhD program are complete.

The PhD program in Economics offers three fields of study:

• Industrial Organization
• International Trade
• Open Economy Macroeconomics

The PhD program in Economics is also particularly strong in applied microeconometrics.

Students typically complete their coursework in two years and the PhD degree in five. Students work as research and teaching assistants under the supervision of a faculty member. After their second year, students can teach independently.

Additional Information

More information can be found online at the PhD program in Economics (https://www.lebow.drexel.edu/academics/doctorate/phd-programs/) page as well as in the LeBow College of Business LeBow PhD Handbook (https://www.lebow.drexel.edu/sites/default/files/1457548154-lebowphdhandbook2016.pdf).

To apply and for application information please check online at the LeBow PhD Admissions (https://www.lebow.drexel.edu/admissions/doctorate-admissions/phd-admissions/) webpage.

Questions should be addressed to lebowphd@drexel.edu.

Admission Requirements

The LeBow College of Business: School of Economics seeks applicants with exceptional ability and motivation. For the PhD, the School places emphasis on applicants who can provide evidence of strong potential in a research-oriented program. In general, prior training at either the undergraduate or graduate level in economics and mathematics is strongly encouraged. All courses in the program expect a preparation of at least principles of economics and basic statistics. Students who lack some part of this preparation may be considered for admission conditional on their completing the appropriate undergraduate courses as non-matriculated students during the summer term before they begin the program in the fall.

Admission is competitive and highly selective.

In reviewing an applicant's credentials, the faculty will consider the following factors:

• Prior Academic Accomplishments: The faculty will examine all course work taken prior to application, paying particular attention to the specific courses that have been completed. Applicants should have attained a minimum grade point average of 3.0 (on a 4.0 scale) for all undergraduate course work completed. They also should have attained a minimum 3.3 average for any graduate-level course work taken. The faculty generally expects applicants to demonstrate a substantially higher level of accomplishment than these minimum requirements. A master's degree is not a requirement.
• Graduate Record Examination (GRE): Applicants are required to submit GRE scores. GRE scores are not accepted if they are more than five years old.
• Test of English as a Foreign Language (TOEFL): Applicants whose native language is not English and who have not already received a degree from a U.S. university must also submit scores from the Test of English as a Foreign Language (TOEFL).
• Personal Statement/Essay: Each applicant must submit a personal statement. The personal statement should explain the applicant's educational and personal experiences that have influenced the decision to pursue a PhD and should discuss the candidate's career plans and goals. The faculty are especially interested in learning about an applicant's prior research experience and the commitment to future research in the applicant's area of specialization.
• Letters of Recommendation: Two letters of recommendation must be submitted in support of the application. Applicants are strongly encouraged to seek recommendations from academics or other professionals who can assess the applicant's likelihood of success in a research-oriented PhD program.

Admission Procedures

The PhD Programs in Economics admits students each fall. To be considered for admission, the completed application must be received by the LeBow College of Business Office of Graduate Admissions no later than January 15th. It is the applicant's responsibility to ensure that all transcripts, test scores and letters of recommendation, as well as the application form and the personal statement, are received by Drexel University no later than January 15th.

Assistantships and Financial Aid

The LeBow College of Business strives to provide graduate assistantships to all entering PhD students. Each applicant to the PhD program is automatically considered for a graduate assistantship as well as for admission into the program. First-year graduate assistants are assigned to work with a faculty member on research activities. During the second and subsequent years, graduate assistants are generally assigned a combination of teaching and research responsibilities. Assistants receive a stipend and 27.0 credits of tuition remission per academic year. Doctoral students who are making satisfactory progress toward the degree can expect to be provided with an assistantship for at least four years.

Degree Requirements

The PhD in Economics program prepares economists for careers in research, teaching, business, and government. It is designed to provide students with not only a broad understanding of modern economics, but also the opportunity to conduct high quality research in a number
of specific fields of study including industrial organization, international economics, and health economics.

In the second year of study, the PhD in Economics offers three fields of specialization: industrial organization, international trade, and open economy macroeconomics. Students complete courses in two of these fields of specialization.

Curriculum
60.0 credits (Post-Master’s degree)
90.0 credits (Post-Bachelor’s degree)

- 27.0 credits of first year core courses
- 18.0 credits of economics field requirements
- 15.0 credits (minimum) of dissertation research
- 30.0 additional dissertation research credits for students without a Master’s degree

Core Courses *

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<th>Course Title</th>
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<tr>
<td>ECON 902</td>
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<td>ECON 910</td>
<td>Advanced Microeconomics I</td>
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<tr>
<td>ECON 911</td>
<td>Advanced Microeconomics II</td>
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<td>ECON 920</td>
<td>Advanced Macroeconomics I</td>
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</tr>
<tr>
<td>ECON 921</td>
<td>Advanced Macroeconomics II</td>
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<td>ECON 940</td>
<td>Econometrics I</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 941</td>
<td>Econometrics II **</td>
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<tr>
<td>ECON 942</td>
<td>Applied Microeconometrics</td>
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</tr>
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<td>ECON 980</td>
<td>Game Theory</td>
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<tr>
<td>STAT 931</td>
<td>Statistics for Economics</td>
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Fields of Specialization 18.0

Student are required to complete the coursework for at least two of the following fields/sequences:

Industrial Organization

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECON 950</td>
<td>Industrial Organization I</td>
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<td>ECON 951</td>
<td>Industrial Organization II</td>
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<tr>
<td>ECON 959</td>
<td>Industrial Organization Seminar</td>
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International Trade

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<tr>
<td>ECON 960</td>
<td>International Trade</td>
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<tr>
<td>ECON 961</td>
<td>Empirical International Trade</td>
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<tr>
<td>ECON 969</td>
<td>International Trade Seminar</td>
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Open Economy Macroeconomics

<table>
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<tr>
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<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ECON 925</td>
<td>Macroeconomic Dynamics</td>
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<tr>
<td>ECON 962</td>
<td>Open Economy Macroeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 979</td>
<td>Open Economy Macro Seminar</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 998</td>
<td>Dissertation Research in Economics</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Total Credits 90.0

* First Year Examination: After the completion of the core coursework, students are examined on their competence in the core material and their readiness to proceed.

** Taken in the second year.

School of Economics Faculty

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Chiou-shuang Yan, PhD (Purdue University). Professor Emeritus. International economics, input-output analysis.

Economics and Computer Science

Major: Economics and Computer Science
Degree Awarded: Master of Science in Economics & Computer Science (MSECCS)
Calendar Type: Quarter
Total Credit Hours: 45.0

Classification of Instructional Programs (CIP) code: 45.0603
Standard Occupational Classification (SOC) code: 19-3011

About the Program

Advanced computing is disrupting the economy. Markets are increasingly moving to online platforms and machine learning and algorithms are replacing people in the provision of goods and services. Businesses and governments need leaders who understand the computer science that powers these new systems and who can also use economic theory and intuition to help design them.

The Drexel LeBow MS in Economics & Computer Science degree serves this need by combining training in advanced computation, data analysis, and economics to prepare students for careers at the interconnection of these two fields.

Additional Information

For more information about the program, contact the School of Economics (https://www.lebow.drexel.edu/faculty-and-research/disciplines/economics/).

Admission Requirements

- Bachelor's degree
- GRE or GMAT
- Two letters of recommendation
- Statement of purpose

For more information, please contact Lori Miceli or call 215-895-0975.

Degree Requirements

Economics Requirements

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<tr>
<td>ECON 548</td>
<td>Mathematical Economics</td>
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</tr>
<tr>
<td>ECON 550</td>
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<tr>
<td>ECON 560</td>
<td>Time Series Econometrics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 610</td>
<td>Microeconomics</td>
<td>3.0</td>
</tr>
<tr>
<td>ECON 614</td>
<td>Macroeconomics</td>
<td>3.0</td>
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<tr>
<td>ECON 700</td>
<td>Economics Seminar</td>
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Computer Science Requirements

Select six of the following courses: 18.0

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>CS 500</td>
<td>Fundamentals of Databases</td>
</tr>
<tr>
<td>CS 510</td>
<td>Introduction to Artificial Intelligence</td>
</tr>
<tr>
<td>CS 520</td>
<td>Computer Science Foundations</td>
</tr>
<tr>
<td>CS 521</td>
<td>Data Structures and Algorithms I</td>
</tr>
<tr>
<td>CS 525</td>
<td>Theory of Computation</td>
</tr>
<tr>
<td>CS 570</td>
<td>Programming Foundations</td>
</tr>
<tr>
<td>CS 571</td>
<td>Advanced Programming Techniques</td>
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<tr>
<td>CS 575</td>
<td>Software Design</td>
</tr>
<tr>
<td>CS 590</td>
<td>Privacy</td>
</tr>
<tr>
<td>CS 610</td>
<td>Advanced Artificial Intelligence</td>
</tr>
<tr>
<td>CS 613</td>
<td>Machine Learning</td>
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Experiential Learning Requirement 3.0

Please select one (1) of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BUSN 615</td>
<td>Graduate Internship</td>
</tr>
<tr>
<td>MGMT 715</td>
<td>Business Consulting</td>
</tr>
<tr>
<td>INTB 790</td>
<td>International Business Seminar and Residency</td>
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Graduate-level electives 3.0

Total Credits 45.0
Sample Plan of Study

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credits</th>
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<th>Spring</th>
<th>Summer</th>
<th>Total</th>
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<tr>
<td>ECON 540</td>
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<td>ECON 550</td>
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<td>610</td>
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Total Credits 45

Economic Data Analysis

About the Graduate Minor
Integral to the application of economics to decision making is the gathering and interpretation of data for planning, forecasting, and policy-making purposes. The graduate minor in Economic Data Analysis gives students a solid foundation in quantitative methods, including but not limited to econometric and statistical techniques. These quantitative techniques can be applied to a wide variety of fields outside of the economics discipline, such as management and decision sciences, marketing, finance, engineering, public health, medicine, and psychology. The minor consists of taking two courses that provide training in core statistical and econometric theory; students then choose from a variety of additional courses that provide the student with practical and hands-on experience applying these tools to real-life economic problems.

Admission Requirements
Student must be a matriculated graduate student. This minor is not available to students pursuing an MS in Economics. For more information on admissions, please contact the program manager for MS in Economics (http://www.lebow.drexel.edu/academics/graduate/current-students/advising/advisors/).

Program Requirements

<table>
<thead>
<tr>
<th>Credits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.0</td>
<td></td>
</tr>
</tbody>
</table>

Graduate Minor in Economics

About the Graduate Minor
Economics addresses how resources and capabilities can be utilized to provide goods and services to society. As such, the study of economics will be valuable to any student whose area of study involves issues of decision making, resource allocation, or social welfare. The graduate minor in Economics gives students a foundation in economic theory that can be applied to areas such as finance, marketing, public policy, public health, law, business, or medicine. After taking one course that provides training in core microeconomic theory, students can choose from a variety of courses that cover other areas such as macroeconomics, international trade, game theory, or public finance.

Program Requirements

<table>
<thead>
<tr>
<th>Credits</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
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