DEPARTMENT OF ECONOMICS



Student Handbook

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Student Handbook

Fall 2019

NB: Substantial effort has been made to ensure the accuracy and completeness of this Student Handbook. However, policies may change and there may be inadvertent errors or omissions. If you have questions about official department policies, you should always check in the College Catalog and talk to your advisor. Suggestions for improvement and additions to the Handbook are always welcome – just contact the department (john.vahaly@louisville.edu).

TABLE OF CONTENTS

Welcome	
Why Major in Economics?	2
Economics Major Report	6
Declaring an Economics Major	7
Course of Study	8
The Core	g
Electives	10
Co-op/Internships	11
Flight Plan	12
Study Tracks	14
Advice for Graduate School	15
Studying Advice	16
Economics Faculty and Staff	18

WELCOME

When you declare your economics major, you join the community of students and faculty studying Economics at UofL. We think economics is an exciting subject, and we look forward to sharing our passion for it with you! We encourage you to talk with faculty and other students about economic theories and issues outside of class, around campus, and in office hours, and to broaden your engagement with economics beyond your classes.

As an economics major, you will be included in department events such as seminars, lunches, or guest speakers – keep an eye out for announcements from the department and join us to do economics! But it is up to you to make the most of your economics major. Think about the academic and professional goals you wish to achieve, read up on the major requirements and course offerings, and plan ahead.

This Handbook is intended to serve as a resource in your academic planning. As professors and advisors, we are committed to supporting you as a student of economics. We encourage you to take ownership of your own education. Be aware of both the opportunities and the requirements of the economics major, and seek out appropriate guidance as you engage in your studies and plan for your future.

This document will help you answer questions such as:

Should I major in economics?

How do economics majors usually schedule their courses over their time at UofL?

Which core theory course should I take first?

Should I take the advanced core theory courses?

When should I start taking upper-level electives?

I'm thinking of going to graduate school in economics – how should I prepare?

Welcome to the Economics Department!

You can follow us on Facebook at https://www.facebook.com/groups/econuofl/

Or Twitter @UofLEcon

Economics is Everywhere

Macroeconomics deals with the big issues of inflation, income inequality, unemployment, mergers, economic growth, pollution, government, poverty, productivity, and other issues that appear in the headlines of news outlets. However, economics is also relevant to other problems of society, such as jobs, wages, discrimination, the environment, voting, marriage, crime, raising children, the internet, e-commerce, healthcare, and education.

Economics is a Successful and Prestigious Social Science

The accomplishments of economics have established it as perhaps the most successful social science. No other social science has had equivalent impact in applying reason and science to the shaping of the nation's social destiny. No other social science has a Nobel Prize. The Council of Economic Advisers is unique; no such permanent federal agency exists for any other social science.

Economics Uses Theoretical Models and the Scientific Method

Some students become impatient with the seemingly endless array of conjecture and descriptive material that characterizes much of the social sciences. Economics offers a social science with models for organizing facts and for thinking about policy alternatives. Because economics deals with prices and numbers, and because so many of its magnitudes are objectively measurable, economic theory is more fully developed than most other kinds of social theory. Many students find this rigor and completeness one of the attractive aspects of studying economics. Sometimes students view math as a fascinating game or language, but are impatient at not being able to use it for human problems. While mathematics is increasingly used by all the social sciences, economics has long been in the forefront in this respect. A student with a background in algebra, geometry, calculus, and statistics finds many places to use these skills in economics.

What Some People Have Done With an Economics Major

- Meg Whitman, Former CEO of Ebay
- John Elway, NFL Quarterback
- Gerald Ford, Ronald Reagan, Donald Trump, Presidents of The United States
- Millard Fuller, Founder of Habitat for Humanity
- Ted Turner, Former CEO of CNN/Atlanta Braves/Atlanta Hawks/TBS
- · Scott Adams, Creator of Dilbert
- Sandra Day O'Connor, First female Justice of Supreme Court
- Lionel Richie, Mick Jagger, Singer/Songwriter

(All information compiled by Dr. Greg Delemeester at www.marietta.edu.)

An Economics Major Prepares Students for Community Leadership

The knowledge of how institutions operate will help individuals seeking a life of public service.

Economics can serve as an avocation as well as a career foundation. As a person knowledgeable about economics, you may play a leading role in a local or national political party, a civic club or organization

concerned with the local economy, a union or teacher's association, or be an informed commentator on current issues in any setting. Few disciplines are equal to economics in preparing one to be an interested, interesting, and understanding observer of passing events and a leader in making decisions that require understanding economics. With only 8.4% of Congress members holding degrees in economics, we need a better-educated Congress when making decisions about how our country spends our money.

Reasons for Avoiding Courses in Economics

There are reasons why students avoid studying economics. Other disciplines may simply be more attractive; something else may interest students more. Here are some reasons for avoiding economics.

- Economics is a Quantitative Field. Yes, we do use mathematical models and Greek letters to
 explain our models. Some students will find this approach intimidating. We do require Math 180 or
 Math 205, but beyond this level of mathematics most students will be able to earn a BA/BS degree
 simply knowing some algebra and geometry. However, graduate studies will require much higher
 levels of mathematics.
- Economics is very formal and technical (i.e. boring). Sometimes boring is a replacement word for difficult. Economics quantifies a favorite activity of people watching. However it does so by marring numbers and words, which may bring back memories of those evil word problems from primary school. For some individuals this is just a difficult way to learn, but for others it brings together two worlds and allows us to see logically the many complex relationships we see in the world today.
- <u>Economics is a business degree and I do not want to do business.</u> Economics is a social science and can help you in many other occupations that are not specifically business related. Economics majors tend to do very well on LSAT and MCAT examinations. In fact, economics majors tend to score within the top 3 on the LSAT and earn more than other lawyers on average.
- <u>Economics is not as good as other majors for business.</u> Economics is actually the mother discipline for most other business majors. Finance is a subfield in economics. Management combines psychology and managerial economics. Marketing uses key aspects of behavioral economics, econometrics for market research, and pricing.

Career Opportunities for Economists

What is it that an economist does? According to the National Science Foundation, an economist is someone who has had professional training in economics at the graduate level and is a member of a professional group, such as the American Economic Association (AEA) or the National Association of Business Economists (NABE).

The economist's job title may or may not include the word economics or economist, particularly if his or her background is limited to an undergraduate major in economics. For most individuals with either and MBA or undergraduate degree in economics individuals apply for jobs with titles such as analyst (in finance or marketing or government policy, for example), manager, planner, coordinator, teacher, or consultant, but rarely economist.

If you want to be an *economist* as such — to pursue one of the three traditional career paths of academia, government, or business — you will usually need graduate training.

The Academic Economist

Almost half of all professional economists are college teachers. A Ph.D. degree is essential to teach at a four-year college. Junior college instructors usually have a Master's degree in economics, but a Ph.D. or work toward a Ph.D. may be required.

A new Ph.D. generally begins an academic career as an assistant professor. Most starting salaries in 2019 ranged from \$101,000 to \$132,000, depending on the academic program of the university.

Salaries vary widely with the type of school and the area of the country, as well as the particular skills and area of specialization that the new faculty member has to offer. Responsibilities usually include teaching from two to four courses a term. Promotion to associate professor and tenure (permanent employment) typically takes from three to seven years. At more prestigious schools, the rule for promotion and tenure is "publish or perish." Faculty members must publish articles (and, increasingly, obtain research grants) in order to be promoted. Promotion to the full professor rank usually occurs from five to 15 years after the promotion to associate professor, depending on the candidate's research record, publications, and teaching ability.

Academic economists often supplement their incomes by writing textbooks and other educational materials and by consulting. In recent years, economists have provided consulting services for a variety of clients in such diverse areas as environmental quality, health care, public education, the value of human life in lawsuits, rural development, and industrial location.

The Business Economist

The rapidly growing professional field of Business Economics reflects the increased use of economics as a business tool. For many years the business community disdained academic training and expressed a preference for practical experience. Early business schools were largely training grounds for middle managers, founded to teach accounting and practical management skills. Any contact that these early business students had with economics was accidental and usually unsatisfactory; economists were considered theoretical ivory-tower dreamers.

Today's economics courses play a major role in the general business curriculum. The increased interest in the uses of economics in business is also reflected in the increasing number of graduate-trained economists in the business community and on the faculty of business schools.

Economists today are found throughout the business community from top management positions down through the company hierarchy. Business economists receive excellent salaries and are in great demand. The largest employers of economists, according to the NABE are firms engaged in manufacturing, banking, business services, and securities and investments. In 2019, persons with an Economics Bachelor's degree received a median starting salary of \$71,400 a year; a Master's degree received a median starting salary of \$111,000.

Top 10 Jobs for Economics Majors				
Market Research Analyst	Financial Analyst			
Economic Consultant	Policy Analyst			
Compensation and Benefits Manager	Lawyer			
Actuary	Management Consultant			
Credit Analyst	Business Reporter			

The Government Economist

There are positions for economists in every federal governmental agency, primarily as policy analysts. A few positions are available at junior grades for economists with undergraduate degrees, but most government economists must possess an Economics Master's or Ph.D. degree. There are jobs for labor economists, international economists, agricultural economists, development economists, public finance economists, and population economists, as well as macro and other micro fields.

The duties of a governmental economist are very diverse and in large part depend on the particular governmental agency. For example, in the State Department or the CIA an economist might become an expert on the economy of a particular country; in the Office of Management and Budget, an expert in a program area such as welfare or health care; and at the Treasury, a specialist in tax policy.

Salaries for government economists vary by region. In 2019, an individual with a B.A. or a Bachelor of Science (B.S.) degree and at least 21 semester hours in economics could get a job at the GS5 or GS7 level, which paid a starting salary of \$33,949 and \$42,053, respectively. An Economics Master's degree qualifies one to start work at the GS9 level at \$51,440 per year, and a Ph.D. qualifies an individual to start work at the GS11 level at \$62,236 per year₅. For more information on jobs with the federal government, visit www.usajobs.gov.

Another area of employment for economists is in state and local government. State government economists play a wide variety of roles, just as they do in the federal government, but there are a few differences.

State economists are more likely to be involved with Microeconomic problems and issues because states do not carry out independent monetary and fiscal policy. They are also likely to be less narrowly specialized, working on a variety of problems and issues. Developing strategies for state economic development, compiling state economic indicators, interpreting the impact of changes in federal policy on state agencies and programs, and developing good state and regional data bases are all important responsibilities for state government economists. Almost all state governors now have the services of at least one economist in a high administrative position.

At the state and local level, the primary areas of research by economists are labor market analysis, school finance issues, state and local taxation and tax reform, natural resource and environmental issues, and budget expenditure analysis. Economists are also moving into important administrative responsibilities in state and local government.

UofL Economics Major Report

Companies that hired University of Louisville Economics students:

Alltech Midwest Metals

Regional Economics Models, Inc. Atria

C.H. Robison Schneider Electric (formerly Summit Energy)

Chase Stockvard Bank and Trust

Teach for America Humana

Kentucky Humane Society US Army

KPMG USIS

Other job placement not reported on the survey (some with undergraduate degrees and others with graduate degrees)

Navigant (Consultant) Accent Marketing (Financial Analyst)

CSC (Data Analyst) Fifth Third Bank

JP Morgan Chase (Mortgage Banking Credit Optimal Blue Secondary Services (Trade

Operations Administrator) Program)

PharMerica (Pricing Analyst) Ameriprise Financial (Financial Service

Kroger Co. (Cost Management Analyst) Professional)

Brown-Forman (several positions in Data Fellon-McCord (Market Analyst II)

Business Analytics at HAVI Global Solutions Analytics)

Ernst & Young (Transfer Pricing Staff) (Senior Analyst)

Graduate School

These outcomes are over several years. Some are economics major and others are minors.

Medical School: University of Louisville

Law School: University of Louisville, University of Kentucky, University of Cincinnati, William and Mary, Washington and Lee, UCLA, and NKU.

Masters Programs: University of Cincinnati (MA Economics, MBA), University of Illinois at Urbana-Champaign, Vanderbilt University (MA Economic Development, MBA), University of Virginia (Data Analytics), University of Maryland - BC (MA Economics and Public Policy), University of Louisville (MBA, MSBA), Xavier University (MBA), Cornell University (Public Policy), NYU, University of Arizona, George Washington University (MA Economics)

PhD Programs: American University, George Mason University, Georgia State University, University of Louisville (Audiology)

DECLARING AN ECONOMICS MAJOR

Choosing your major is a big decision. We encourage you to seek advice from your advisor and other professors. *The economics major should be declared in sophomore year, or at the latest by the end of junior year.* Note that if you are double-majoring you should still declare both majors as soon as your plans are definite. If you put it off, you miss out on the benefits of department advising and communications, and you may not be able to fulfill the major requirements.

If you received a B or better in either Principles of Macroeconomics or Principles of Microeconomics, then you should consider majoring in economics.

 To declare the major, visit the <u>Reinhardt Academic Center</u> and speak with Dr. Nora Scobie, <u>nora.scobie@louisville.edu</u>, 852-4803.

While there is no official deadline for choosing a major, College of Business students will be focused on a major in the second semester of their sophomore year. Officially choosing a major insures that you will receive any departmental notifications and changes in curriculum.

The Economics Department offers two different undergraduate degrees

The difference between to the degrees

BSE – Bachelor of Science in Business Economics

This degree is specialized in the application of economics for business. The student will be required to take courses in Accounting, Business Communications, and Computer Information Systems. Additionally, students will be able to take 15 hours of business elective credit. This degree is recommended for individuals who would like to go directly into industry upon graduation or pursue an MBA in the future. This degree is particularly attractive to individuals interested in double majoring with other College of Business degrees such as Finance.

BA – Bachelor of Arts in Economics

This degree offers students more flexibility in their choice of electives. In lieu of the business specific courses offered in the BS, the BA degree requires a foreign language. This degree is attractive to individuals who want a more liberal arts educations or are interested in graduate school. We recommend individuals who are interested in Law School, Medical School, Doctorate programs in Economics, or other MA programs to select this degree.

COURSE OF STUDY

The economics major consists of a 30 credit hours of courses specific to economics

- 15 hours of core courses
- 15 hours of electives

Additionally students must complete or have equivalent credit in Math 180 or Math 205 and Business Statistics.

Core Course Requirements

Core Classes:

- ECON 201 Principles of Microeconomics
- ECON 202 Principles of Macroeconomics
- ECON 301 Intermediate Microeconomics
- ECON 302 Intermediate Macroeconomics
- ECON 475 Senior Seminar

Honors Classes: Honors Sections of ECON 201 and ECON 202 are both available.

Math requirement:

BSTAT 301 - Business Statistics MATH 180 or MATH 205 – Calculus

THE CORE

There are three elements of the core theory of economics: microeconomics, macroeconomics, and econometrics.

Microeconomics addresses the behavior of individuals and firms, developing theories to understand how these actors make decisions in a variety of market situations.

Macroeconomics takes a more top-down approach, studying the behavior of the economy as a whole, through analysis of aggregate supply and demand, growth, inflation, and unemployment.

Econometrics completes the economist's basic toolbox, developing statistical and mathematical tools to test economic hypotheses using empirical data. However, Intro to EconometricsS NOT REQUIRED for the major, but highly recommended especially for those interested in graduate studies such as data analytics, economics, public health, and public policy.

All majors must complete the sequence of Microeconomics (Econ 301) and Macroeconomics (Econ 302) theory courses. These will indeed form the core of your study of economics.

Things to keep in mind about the core theory courses:

- You must complete either Math 180 or Math 205 for the major.
 - You are highly encouraged to complete your math requirement prior to your intermediate theory courses. While you can still complete these courses without Calculus, these courses become much easier with prior knowledge of Calculus.
- It is not advisable to take more than one of the intermediate theory courses in a given semester.
- Calculus will be used in certain electives (400 level).
- The best time to take Intro to Econometrics shortly after taking your business statistics course.

ELECTIVES

We offer many electives, covering a wide variety of topics in economics. Each major must take five of these courses. The offerings change from year to year depending on the interests of students and faculty.

Lower-Level Electives

The elective courses numbered in the 300s are informally called our "lower-level electives." These courses require only Principles of Microeconomics as a prerequisite, and are most appropriate for students relatively early in their study of economics. They tend to be slightly larger lecture-based classes with 20 to 40 students in each.

Upper-Level Electives

The elective courses numbered in the 400s are informally called our "upper-level electives." These courses require one or more of the core theory courses (300-level courses) as prerequisites. They are appropriate for students a bit further along in their study of economics, primarily (though not exclusively) juniors and seniors. They often tend to be smaller seminar-style classes with fewer than 20 students in each. Classes will often require close reading of the current academic literature, the writing of papers of varying length, and empirical or theoretical exercises. The mathematics used in these courses will tend to be more advanced and use calculus.

How Many Electives to Take

The typical economics major will need to take 5 elective courses to complete the major. At least one of these must be an upper-level elective, but we encourage you to view that as a *minimum* rather than a *maximum*. Once you have mastered the core theory of the 300-level courses, it is satisfying to be able to apply that theory in more advanced study of topics in economics in the 400-level courses.

Both the BA and the BSE provide 15 credit hours outside of the economics concentration. These additional hours provide students with ample ability to add a minor or even a second major and still graduate on time.

If you have any questions about these policies, consult your academic adviser.

INTERNSHIPS/CO-OP

The Ulmer Career Center, which serves business school students only, is happy to assist with your co-op/internship opportunities. A co-op/internship is an excellent way to become acquainted with job opportunities available to economics majors.

Here are a few benefits

- You will gain industry knowledge that you won't learn anywhere else.
- You will accumulate evidence of your abilities outside of the classroom.
- You will make critical professional contacts
- You will learn if you enjoy a certain type of work. Think of an internship as an
 opportunity to experiment with the different types of jobs available to
 economics majors. Do not get stuck in a job you hate and possibly find a job
 you will love.
- You can earn college credit toward graduation
- You can even get paid. A majority of the co-op/internships available have hourly compensation.
- Sixty percent of interns receive full-time offers

If you are interested in a co-op/internship, then please contact the Ulmer Career Center and Dr. Barry Haworth (<u>Barry.Haworth@louisville.edu</u>). Economics Majors must complete ECON 201 and ECON 202 before they can start a co-op or internship.

Flight Plan for the Bachelor of Science in Business Economic Major (BSE)

Fall	Spring				
Year 1					
Gen Ed (Arts & Humanities)	Math 180 or Math 205				
Camp 100	ENGL 102 Intermediate Writing				
Gen Ed (Natural Science Lab)	Gen Ed (Oral Communication)				
Gen Ed (Natural Science)	Gen Ed (Natural Science)				
Econ 201-Principles of	ECON 202 - Principles of				
Microeconomics	Macroeconomics				
ENGL 101					
Y	ear 2				
BUS 201 – Career Development	BUS 301 Business Comm				
BSTA 301 – Business Statistics	ACCT 202 - Managerial Accounting				
ECON 301 – Intermediate Micro	ECON 302 – Intermediate Macro				
ACCT 201 - Financial Acct	Gen Ed (Arts & Humanities)				
CIS 205 – Information Systems	CIS 305 - Data Analysis				
PHIL (222, 235, 321, 323)	•				
Y	ear 3				
HIST 101 or 102	Economics Elective				
General Electives (3)	General Electives (2)				
Economics Elective	Business/Economics Electives (2)				
Y	ear 4				
General Electives (2)	Economics Elective				
Economics Electives (2)	General Elective				
Business/Econ Elective	Business/Economics Elective (2)				
	Econ 475 Senior Seminar				

Flight Plan for the Bachelor of Arts in Economics Major (BA)

Fall	Spring				
Year 1					
ENGL 101 – Intro to College Writing	MATH 180 or MATH 205 - Calculus				
Camp 100	ENGL 102 Intermediate Writing				
Gen Ed (Natural Science)	ECON 202 - Principles of				
Gen Ed (Natural Science Lab)	Macroeconomics				
ECON 201 – Principles of	POLS 202 Comparative Politics				
Microeconomics	Foreign Language				
Foreign Language					
Y	ear 2				
BUS 201-Career Development	ECON 301 – Intermediate Micro				
BSTA 301 – Business Statistics	Social Science Elective				
Foreign Language	POLS 201 American Government				
HIST 101 or HIST 102	Gen Ed (Oral Communication)				
Gen Ed (Arts & Humanities)	Gen Ed (Arts & Humanities)				
Gen Ed (Natural Science)	,				
Y	ear 3				
ECON 302 – Intermediate Macro	Economics Elective (2)				
Economics Elective	Humanities/Natural Science (300+)				
Gen Ed (300-level or above)	General Elective (300+)				
Social Science (300-level or above)	Social Science Elective (300+)				
Humanities or Natural Science	,				
Elective					
Yo	ear 4				
Economics Elective	ECON 475 – Economics Seminar				
Social Science Elective	Economics Elective				
General Elective (3 at 300-level or	Humanities or Natural Science				
above)	Elective (300-level or above)				
•	General Elective				

Tracks for Economics Majors:

Theory/Quantitative -

Math 205 Calculus I, Math 206 Calculus II, Math 301 Calculus III and two or more of the following:

401 Mathematical Economics
380 Intro to Econometrics
410 Advanced Price Theory
442 Industrial Organization

490 Game Theory

(other math classes which could substitute are Probability, Higher Math, and Linear Algebra)

Law and Public Policy

331 Labor Economics341 Public Finance365 Law and Economics

and choose from the following:

- 342 State and Local Public Finance
- 355 Economics of Health
- 360 Environmental Economics
- 421 History of Economic Thought
- 442 Industrial Organization

Business Economics

331 Labor Economics380 Intro to Econometrics442 Industrial Organization

and two or more of the following:

- 312 Urban Economics
- 375 Capitalism and Economic Freedom
- 431 International Economics

International Economics

International Economics
 Emerging Market Economies
 The Chinese Economy

Advice for Applying to Grad School in Economics

Here we provide a short summary of things you should do if you are considering advanced degrees in economics.

- What Courses to take to prepare for Grad School?
- What Graduate programs are available?
- Some advice for graduate school?

Graduate School Types

An undergraduate degree prepares you for many different types of graduate school programs.

Here is a short list

- MA, MS, or PhD in Economics
- Master in Environmental Science
- Master in Public Health
- Masters in Public Policy
- Masters in Urban Planning
- Masters in Business Administration
- Law School, JD
- Data Analytics

Choosing classes

- Graduate schools care much more about what hard classes you've taken and how you've done in them than about overall GPA.
- If you have taken difficult classes its probably a good idea to point this out in your application essay because schools might not know what the math classes are, which economics classes are the advanced ones, etc.
- And while we are on the subject, take Math! As much Math as possible if you are considering a PhD. It is recommended you complete the Calculus Sequence (Calculus I III) and Linear Algebra. Also recommended, but not required are upper levels in Probability, Statistics, and Real Analysis. Here is what the American Economics Association recommends.
- For MA degrees, the math requirement is less stringent. Calculus I-II, Linear Algebra, and some quantitative Economics Electives.
- Below you will find a list of suggested courses depending on your interest.

PhD/Masters in Economics here, here</

Job outcomes for Economics majors

Useful programs to learn for graduate studies: R, STATA, and SAS for statistical analysis

Programming Languages: C/Fortran, Matlab, Python, and Julia There are lots of free resources for these above programs.

STUDYING ADVICE

There are many valuable approaches to studying economics, and we encourage you to build on your past experiences and work to develop new strengths. In this section, we provide some general advice that may be helpful to you as you take economics courses at Amherst.

Keep in mind that there are many resources available to you as you study:

REACH (http://reach.louisville.edu/)
Office hours with the professor
Help sessions
Study Groups

Some general advice about good studying habits:

- Schedule your time carefully.
- Studying is a full-contact endeavor! Do problem sets, ask yourself questions, and engage actively with the material. It is not a spectator sport.
- Read actively. Try to ask yourself questions as you read, jot a few notes in the margin, stop to explain the concepts and put them in context. Keep yourself engaged and thinking as you read.
- Read ahead. You will get more out of your classes.
- Think ahead. Don't try to do problem sets at the last minute, or write a paper in two hours. Take some time with it. Enjoy it, and learn from it. Pause briefly to try to get the larger picture.
- Read your returned work carefully, look at the places where you may have faltered, help yourself understand them and ask the professor, TA, etc. for help. These are learning experiences – use them as such.
- Get study partners, and talk about the class material. Explain things to each other.
- Talk to professors, ask questions. It is great to see students do the problem set or reading, mark down questions that are unclear to them, and come to talk to the professor about it. Students who do this do well in their classes, whatever their comfort level with the material.
- Be flexible. There are so many resources available if one doesn't work just try out another! Do not get discouraged, something will work, and there are many people on campus interested in helping.

Some advice about the particular demands of studying economics:

- Keep up. Especially in courses with weekly problem sets, make sure you keep up. Do not fall behind. Organize your time so that you can stay on schedule.
- Pursue multiple modes of understanding. Economic ideas can often be understood mathematically, intuitively, or graphically – try to cultivate all three modes.
- Do problems. Economics professors often assign problem sets or practical exercises to help students learn analytical material. Realize that these problem sets are essential.
- They may only count for a small fraction of the grade, but it is a mistake to use
 that as an excuse to allocate little time to them. Doing problem sets, assimilating
 the material, asking for help with the problems, talking to others about them –
 these are the heart of learning economics. This is particularly true of the core
 theory courses.
- Read actively. A good strategy is to go through a chapter and try to explain any figure, table, or equation to yourself the theory behind it, its implications, any assumptions, what it really means, how it relates to problems, etc. Explain it aloud. Work with a partner to explain it to each other. It is amazing how something can seem obvious when you just read through it, but then be very confusing when you have to explain it to yourself or someone else. Figures presented in economics courses usually embody more than one insight. Scrutinize them! Try to reproduce them from scratch. If you see a pattern in the economic analysis, don't just memorize it investigate why and how it happens.
- Build on your past work. When an assignment is returned to you, take some time
 to look at it carefully with the solutions, and learn from the experience. Even write
 down suggestions for your own future work. These will help focus your studying
 later on.
- Prepare early and thoroughly for exams. Review the material, making review notes if that is useful. Write out key definitions and concepts, and know them. Draw figures, and understand them. Explain the material to yourself. Then try to do problems, possibly categorizing them into types. You can do new problems from the book or review materials, or just re-do problem set problems. Understand the types of problems, the approach, what purpose they serve. Think about the issues, just play around with the ideas and become comfortable with them. Ask for help with any questions that come up in your studying. If there is a pre-exam help session, you can go to it even if you don't have questions, just to hear the discussion generated by others' questions. When you think you're close to ready, take an old exam for practice (do this under exam conditions), and use that as another learning experience.

ECONOMICS FACULTY AND STAFF

Visiting Professor Jacob Burgdorf

Industrial Organization, Public Economics, Applied Microeconomics

My main area of research is in industrial organization. My study has focused on the US beer market. Currently, I study how firms interact along the vertical supply chain, and how restraints and regulations affect brewer/wholesaler behavior which affects the availability, production, and price of beer in local beer markets. I regularly teach econometrics and introductory microeconomics.

Associate Professor Yong Chao

Industrial Organization, Antitrust and Regulatory Policies, Behavioral Economics

Yong Chao is an applied micro-economist, whose research focuses on industrial organization, antitrust and regulatory policies and behavioral economics. His work has appeared in leading academic journals including the *American Economic Review*, *RAND Journal of Economics*, *International Economic Review*, *Management Science*, and *Review of Financial Studies*. He is a recipient of several research awards and grants from Microsoft Corporation, NET Institutes, and Ministry of Education in China. In addition to his academic credentials, Chao has advised several antitrust cases and the design of regulatory policies.

Chao earned his PhD in Economics from the University of Southern California in 2010, his M.A. in Economics from the University of British Columbia in 2004, and his B.S. in Mathematics and B.A. in Economics from the Huazhong University of Science and Technology in China in 2003.

Associate Professor Nan-Ting Chou

Macroeconomics, Applied Microeconomics, China's economy

My main area of research is in the area of Macroeconomics and applied Microeconomics. I am also interested in research in financial markets and the economic development of China specifically the management of small enterprises and environmental economics. I regularly teach Principles of Macroeconomics, Intermediate Macroeconomics, and Money & Banking to our undergraduate students. I also teach Managerial Economics in our MBA program.

Associate Professor Jose Fernandez

Health Economics, Labor Economics, Industrial Organization

My main areas of research is in Health Economics. I study subjects related to mental health, illicit drug use, alcohol use, and suicide. I have also worked on projects associated with wage floors such as the minimum wage and living wage ordinances to study how these policies affect criminal behavior. Lastly, I have an interest in pricing models that include behavioral concerns such as Pay-what-you-like pricing.

I currently teach Law & Economics, Game Theory, Principles of Microeconomics (on-line) and Business Statistics (on-line) to undergraduate students as well as the core Economics courses for our Full-Time and Weekend MBA programs.

Professor Per Fredriksson

Political Economy, Environmental Policy, International Trade

My main area of research is the intersection of political economy and the environment policy. I am interested in how political institutions (corruption and democracy, for example), political parties, legal systems, and history shape environmental policies. I have also done research on the determinants of trade policy, labor regulations, cigarette taxes, and alcohol taxes. I regularly teach Principles of Macroeconomics, Intermediate Macroeconomics, and Environmental Economics.

Professor Stephan F. Gohmann Entrepreneurship. Labor Economics, Policy

I regularly teach the course ECON 375, "Capitalism and Economic Freedom." I also teach the online Principles of Microeconomics course. All of my remaining classes are in the MBA program. My research focuses the influence of institutions and regulations on entrepreneurship. I also examine how prohibitions influence various markets such as the beer and meth lab market. Most of these studies examine the influence of various policies on individual behavior.

Assistant Professor Barry Haworth Industrial Organization, Economic Education

I regularly teach Principles of Microeconomics and Principles of Macroeconomics. I have received numerous teaching awards including the student nominated Faculty Favorite award while teaching these courses. Outside of the classroom, I am the head coach for Assumption High School's cross country running team.

Associate Professor Alexei Izyumov Comparative Economics, International Economics, Defense and Peace Economics, Political Economy of Post-Communist Transitions, Economics and Politics of Immigration, and Entrepreneurship

My research centers on the political economy of transition economies. I have studied the role of capital accumulation and labor share as economies transition in capitalist based systems. I also consider the effect of economics transitions have on measures of corruption and macroeconomic policies.

I regularly teach International Economics (undergraduate and graduate), Global Business (MBA), Principles of Microeconomics, Principles of Macroeconomics, Intermediate Macroeconomics, Foundations of Economics (graduate), Emerging Market Economies.

Associate Professor Audrey D. Kline

Applied Microeconomics, Industrial Organization & Regulation, Economics of Prohibition, Economics of Religion

My teaching and research interests are in areas of applied microeconomics. I have focused on both historical and contemporary applications of microeconomic theory to various issues, ranging from the economics of religion to more recently, the economics of prohibition, particularly applied to gun control. After serving in academic administration department chair

and MBA director, and over 10 years as senior associate dean of the college, I returned to teaching a few years ago. I love working with students and enjoy teaching microeconomic principles, intermediate microeconomics, applied economics electives, and special topics courses as well as independent studies.

Assistant Professor Conor Lennon

Labor Economics, Health Economics, and Economic History

I teach ECON 201- Principles of Microeconomics, ECON 475 - Senior Seminar, and an honors seminar (ECON 490) focused on the use of narratives to address important economic issues. Broadly, I am interested in how various labor market policies such as minimum wage policies and mandated health insurance in the United States affect individuals' earnings. I also have interests in the relationship between education and future earnings and in economic history, particularly in the microeconomics of slavery, public health improvements, and the history and origins of the unique US system of employment--based health insurance.

Assistant Professor Elizabeth Munnich

Health Economics, Labor Economics, Public Economics

My main area of research is health economics, in particular applying microeconomic theory and econometric tools to understand the U.S. healthcare market. Recent research projects have examined efficacy of health care provision, the health care workforce, and the effects of family structure on child outcomes.

I regularly teach undergraduate courses in health economics and business statistics, as well as health economics courses in the M.B.A. program. I am very interested in using economic and statistical tools to shape effective public policies, and I try to incorporate current policy and other relevant applications in all of my courses.

Professor Babu Nahata

Microeconomics, Industrial Organization, Pricing, Multidimensional Screening and Happiness Economics

My main area of research interest is microeconomic theory, multidimensional screening, pricing and mergers and antitrust related issues in industrial organization. I have taught here since 1978 and have also taught in Greece, India, Japan, Panama, Russia and Singapore. I have traveled to many countries around the world to lecture at many universities and present the scholarly work at many renowned national and international conferences. My research work has been funded by the Japan Foundation, Japan Society for Promotion of Science, the Soros Foundation, the World Bank, and the University of Louisville, among many others. My research has been published in the leading economics journals. I am currently teaching Intermediate Microeconomics and Economics of Happiness courses.

Professor John P. Nelson

State & Local Government, Public Finance, History of Economic Thought

I have taught Principles of Microeconomics & Macroeconomics, State & Local Government, Public Finance, Economic Forecasting, History of Economic Thought, and Managerial Economics at the undergraduate level. At the graduate level, I have taught Managerial

Economics, Public Finance, and Economic Forecasting.

Beside my teaching and administrative positions, I have spent most of my career in working with state and local government. I have been director of research for the Kentucky Legislature (LRC), director of management reorganization study in Governor's Office, Head of Finance for Kentucky Education, director of budget for City of Louisville, and financial consulting to legislative branch of Metro Government.

Associate Professor Joshua C. Pinkston Labor Economics, Health Economics

My research interests include the economics of labor markets and health. I am best known for studying imperfect information in labor markets, including applications to labor market discrimination and firm hiring. My recent work includes multiple studies of obesity, two examining the unintended consequences of local alcohol laws, and one investigating changes in how the unemployed look for work.

I teach labor economics, microeconomics, and mathematical economics at the undergraduate level. I also teach the core economics course for U of L's entrepreneurship MBA program. Before moving to Louisville, I taught labor economics in the Applied Economics MA program at Johns Hopkins University. In each of my classes, I strive to show how the abstract models I present are relevant to public policy, business performance and daily life.

Instructor Lynn Usher

I currently teach Principles of Microeconomics. I have received the Outstanding Faculty Award in Economics and have been nominated by the students as the Faculty Favorite numerous semesters. I graduated from UofL's College of Business and then studied Economics and Statistics in graduate school at NCSU. I began teaching Economics at UofL in 1987. Outside of the classroom, I own and operate a small residential rental property business.

Associate Professor John Vahaly

Macroeconomics, Inequality, Public Policy

I have been teaching and doing research in macroeconomic policies, especially as they affect global development issues. This includes research in development problems encountered in developing and transition economies. Specifically those aspects of economic development that rely upon international capital flows. I am also interested in the linkage between economic theory as it applies to distributional issues and the two issues of poverty and inequality. My teaching has focused on macroeconomics with particular emphasis on optimal regulation of financial markets following the 2008 global meltdown.

Assistant Professor Weihau Zhao

Urban, Regional, and Real Estate Economics

My research areas are in urban, regional, and real estate economics. I teach urban economics to help students to gain a better understanding of our cities, which are the big engine of our economy. In addition, I teach business statistics.

I am interested in understanding urban spatial structure change over time, urbanization

Department of Economics – University of Louisville

process in the developing countries, and effects of housing regulations on housing price and housing redevelopment. I have written papers on the effects of telework on urban form and energy use, the effects of minimum lot size zoning on housing redevelopment, the relation between oil price and housing demand, and the effects of self-driving cars on urban spatial structure change and energy use.

ECONOMICS MAJOR PLANNING SHEET

tudent	Current Semester					Date		
Course Category	Course		SEM	ESTER	GRA	DE	Notes	
Introduction								
Principles								
Core Theory Courses								
Microeconomics								
Macroeconomics								
Econometrics (elective)								
Electives								
Elective 1								
Elective 2								
Elective 3 (poss upper)								
Elective 4 (poss upper)								
Elective 5 (def upper)								
Other courses								
Math 180 or MATH 205								
Business Statistics								
Senior Seminar								
ems to discuss with my advi	sor:							