

Major Fest Fall 2024: Economics

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What is Economics?

The generally accepted definition is that of Lionel Robbins' book "*An Essay on the Nature and Significance of Economic Science*" (1932):

*Economics is the **science** which studies **human behaviour** as a **relationship between ends and scarce means** which have alternative uses.*

The "modern" definition of economics that we subscribe to is:

*Economics is the **science** that studies the **allocation of scarce resources** among 'rational' **decision makers**.*

Economics as a Science

From Wikipedia:

“Science (from Latin *scientia* 'knowledge') ... builds and organizes knowledge in the form of testable explanations and predictions.”

Thus, **economics** is based on:

- **reason**: “*rerum cognoscere causas*” – to know the causes of things.



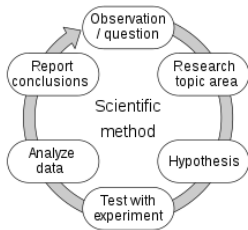
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- **scientific methodology** (the following is from Wikipedia as well)



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Thus, **economics** is based on:

- **reason**: “*rerum cognoscere causas*” – to know the causes of things;
- **scientific methodology**;
- **refutability** (*theory*) and **testability** (*econometrics*);

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Rationality

We need to **know/predict how individuals (decision makers) behave**

- to formulate a sound hypothesis modeling the question and
- to solve the resulting model to be tested against the data.

1950's rationality demands that a rational decision maker can “**rank**” (alternatively, order) all the alternatives he/she faces.

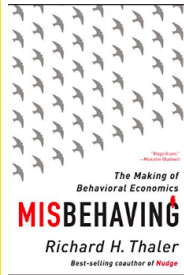
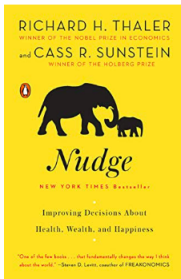
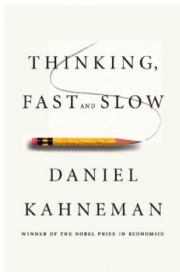
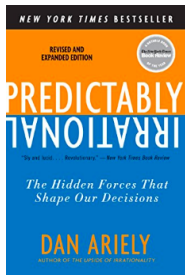
Therefore, individuals' choices can be captured by

- **preferences**, comparisons of only two alternatives at a time; and
- resulting mathematical functions, the so-called **utility functions**.

But real-life is **not that easy!**

Behavioral Aspects

The premise of behavioral economics is predictability.



- Attraction effect; status-quo bias, reference effect, ...
- Intransitivities of indifferences,
- Attitude toward risk and ambiguity.

Status-Quo Effect: A Deviation from Rationality

DMs choices involve a tendency towards the status-quo:

Which SU program should the DM choose? **C**omputer Science or **E**conomics or **I**ndustrial Engineering. Suppose the older brother/sister of the DM is an industrial engineering major.

The set of **alternatives** is $\{c, e, i\}$ and suppose DM's choices are:

| Set of alternatives | Choices |
|---------------------|------------|
| $\{c, e, i\}$ | $\{c\}$ |
| $\{c, e\}$ | $\{c, e\}$ |
| $\{c, i\}$ | $\{c\}$ |
| $\{e, i\}$ | $\{i\}$ |

There cannot be any rankings to capture DM's choices. Thus, this DM is “predictably irrational” even though his choices “make sense”.

Allocation of Scarce Resources

Scarcity is essential:

- The allocation problem becomes trivial without scarcity.

The resources are to be **allocated** among the 'rational' individuals.

- The amount of resources to each individual is determined. E.g.,
 - ▶ *assignment of students to dormitories;*
 - ▶ *allotment of offices to the faculty;*
 - ▶ *assignment of doctors to hospitals in various cities;*
 - ▶ *determination of the weights in a financial portfolio;*
 - ▶ *voting in local (municipality) and country-wide elections.*

Allocation of Scarce Resources

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The resources are to be **allocated** among the 'rational' individuals.

- The amount of resources to each individual is determined.
- How individuals evaluate/value the resources is their call.
 - ▶ An individual may love these resources, while the other may hate them.
 - ▶ The social scientist cannot judge and determine "what should be liked."
 - ▶ Individuals' evaluations are **exogenously given** for the social scientist.

Allocation of Scarce Resources

We could analyze **allocation of scarce resources among rational individuals** in many interesting settings:

- Resources in a closed economy (ECON 370);
- Consumption and investment to various time periods (ECON 360);
- Public funds to public projects (ECON 320);
- Money to various financial assets (Finance courses);
- Doctors to hospitals, and grooms to brides (ECON 488);
- Strategized behavior (ECON 310); ...

Testing the fit of these various models to the data from the real-life

- Econometrics (301); Labor (430); Education (321); ...

Why Economics?

- To obtain strong foundations in theory and practice in economics and social sciences.
- To gain the ability to dissect problems in these fields with an analytic perspective.
- To become valued members of the academic and professional community responsible for policy determination/implementation.

American Economic Journal: Applied Economics 2022, 14(2): 1–22
<https://doi.org/10.1257/app.20200447>

Will Studying Economics Make You Rich? A Regression Discontinuity Analysis of the Returns to College Major[†]

By ZACHARY BLEEMER AND AASHISH MEHTA[✉]

We investigate the wage return to studying economics by leveraging a policy that prevented students with low introductory grades from declaring a major. Students who barely met the grade point average threshold to major in economics earned \$22,000 (46 percent) higher annual early-career wages than they would have with their second-choice majors. Access to the economics major shifts students' preferences toward business/finance careers, and about half of the wage return is explained by economics majors working in higher-paying industries. The causal return to majoring in economics is very similar to observational earnings differences in nationally representative data. (JEL A22, I26, J24, J31)

Why Economics?

- The program is composed of 13 full time prominent and accessible researchers in their field.
- It provides dynamic interaction in core and area courses generally with at most 30 students.
- It offers a wide variety of field of specialization.

Curriculum: Mandatory Courses

- Micro (ECON 204),
- Macro (ECON 202),
- Games and Strategies (ECON 201),
- Econometrics (ECON 301);
- Introduction to Probability (MATH 203);
- Statistical Modelling (MATH 306); and
- Project and Internship (ECON 300).
- One course from the following pool:
 - ▶ MATH 201 Linear Algebra,
 - ▶ MATH 202 Differential Equations,
 - ▶ MATH 204 Discrete Mathematics.

Curriculum: Core Elective Courses

4 courses from the following pool:

- ECON 310 Game Theory,
- ECON 320 Public Economics,
- ECON 330 Industrial Organization
- ECON 340 International Economics
- ECON 350 Financial Institutions and Markets
- ECON 360 Advanced Macroeconomics
- ECON 370 Advanced Microeconomics
- ECON 430 Labor Economics

Curriculum: Area Elective Courses

6 courses from the following pool: (from the BA Degree Requirements)

ECONOMICS UNDERGRADUATE PROGRAM (BAECON)

Area Elective Courses

| | | | | |
|-----------|--|---|---|------|
| * ACC 201 | Introduction to Financial Accounting and Reporting | 6 | 3 | SBS |
| ECON 312 | Behavioral Economics | 6 | 3 | FASS |
| ECON 321 | Education Economics and Policy | 6 | 3 | FASS |
| ECON 322 | Health Economics and Policy | 6 | 3 | FASS |
| ECON 323 | Energy and Environmental Economics | 6 | 3 | FASS |
| ECON 335 | Economics of Information | 6 | 3 | FASS |
| ECON 341 | Corporate Finance | 6 | 3 | FASS |
| ECON 345 | International Finance | 6 | 3 | FASS |
| ECON 346 | Global Finance and Multinational Corporation | 6 | 3 | FASS |
| ECON 347 | Essentials of Project and Infrastructure Finance | 6 | 3 | FASS |
| ECON 391 | Topics in Macroeconomics: Emerging Market Macroeconomics | 6 | 3 | FASS |
| ECON 399 | Independent Study | 6 | 3 | FASS |
| ECON 400 | History of Economic Thought | 6 | 3 | FASS |
| ECON 401 | Applied Econometrics | 6 | 3 | FASS |
| ECON 403 | Economic History | 6 | 3 | FASS |
| ECON 405 | Law and Economics | 6 | 3 | FASS |
| ECON 407 | The Political Economy of European Integration | 6 | 3 | FASS |
| ECON 412 | Competition and Regulation | 6 | 3 | FASS |
| ECON 414 | Applied Macroeconomics | 6 | 3 | FASS |
| ECON 420 | Growth and Development | 6 | 3 | FASS |
| ECON 422 | From Plan to Market: Economic Transformation in Eastern Europe | 6 | 3 | FASS |
| ECON 423 | Economics of the Welfare State | 6 | 3 | FASS |
| ECON 424 | Welfare Economics | 6 | 3 | FASS |
| ECON 425 | Topics in Political Economics | 6 | 3 | FASS |
| ECON 440 | Topics in Economics of Globalization and Development | 6 | 3 | FASS |
| ECON 450 | Microeconomics of Banking | 6 | 3 | FASS |
| ECON 481 | Advanced Microeconomic Theory I | 7 | 4 | FASS |
| ECON 482 | Advanced Microeconomic Theory II | 7 | 4 | FASS |
| ECON 483 | Advanced Macroeconomic Theory I | 7 | 4 | FASS |
| ECON 484 | Advanced Macroeconomic Theory II | 7 | 4 | FASS |
| ECON 485 | Advanced Quantitative Methods | 8 | 4 | FASS |
| ECON 486 | Advanced Econometric Theory | 7 | 4 | FASS |
| ECON 488 | Matchings and Markets | 6 | 3 | FASS |
| ECON 491 | Topics in Economic Theory | 6 | 3 | FASS |
| ECON 492 | Seminar on the Turkish Economy | 6 | 3 | FASS |
| ECON 493 | Understanding Chinese Economy | 6 | 3 | FASS |
| ECON 494 | Spatial Data Science | 6 | 3 | FASS |
| LAW 401 | Law, Business and Society | 6 | 3 | FASS |

* Faculty Courses

Curriculum: Overall Plan

| | | 1st YEAR | | | | | |
|----------|-----------------------------------|--------------|------------|------------|------------------------------------|-----------|------------|
| | | 1st Semester | | | 2nd Semester | | |
| Code | Title | ECTS | SU Credits | Code | Title | ECTS | SU Credits |
| MATH 101 | Calculus I | 6 | | 3 MATH 102 | Calculus II | 6 | 3 |
| | Computational Approaches to | | | | | | |
| IF 100 | Problem Solving | 5 | | 3 AL 102 | Academic Literacies | 5 | 3 |
| NS 101 | Science of Nature I | 6 | | 4 NS 102 | Science of Nature II | 6 | 4 |
| SPS 101 | Humanity and Society I | 6 | | 3 SPS 102 | Humanity and Society II | 6 | 3 |
| | Principles of Atatürk and History | | | | Principles of Atatürk and History | | |
| HIST 191 | of Revolution I | 3 | | 2 HIST 192 | of Revolution II | 3 | 2 |
| TLL 101 | Turkish Language and Literature I | 3 | | 2 TLL 102 | Turkish Language and Literature II | 3 | 2 |
| CIP 101 | Civic Involvement Projects I | 1 | | 0 | | | |
| | | 30 | | 17 | | 29 | 17 |

| | | 2nd YEAR | | | | | |
|----------|-----------------------------|--------------|------------|------------|-----------------------|-----------|------------|
| | | 3rd Semester | | | 4th Semester | | |
| Code | Title | ECTS | SU Credits | Code | Title | ECTS | SU Credits |
| HUM 2XX | Major Works I | 5 | | 3 HUM 2XX | Major Works I | 5 | 3 |
| ECON 201 | Games and Strategies | 6 | | 3 MATH 306 | Statistical Modelling | 6 | 3 |
| ECON 204 | Microeconomics | 6 | | 3 ECON 202 | Macroeconomics | 6 | 3 |
| MATH 203 | Introduction to Probability | 6 | | | Free Elective I | 6 | 3 |
| MATH 2XX | MATH 201/203/204 | 6 | | | Free Elective II | 6 | 3 |
| PROJ 201 | UG Project Course | 1 | | 1 | | | |
| | | 30 | | 16 | | 29 | 15 |

| | | 3rd YEAR | | | | | |
|----------|-------------------|--------------|------------|-----------|-------------------|-----------|------------|
| | | 5th Semester | | | 6th Semester | | |
| Code | Title | ECTS | SU Credits | Code | Title | ECTS | SU Credits |
| ECON 301 | Econometrics | 6 | | 3 SPS 303 | Law and Ethics | 5 | 3 |
| | Core Elective I | 6 | | 3 | Core Elective III | 6 | 3 |
| | Core Elective II | 6 | | 3 | Core Elective IV | 6 | 3 |
| | Area Elective I | 6 | | 3 | Area Elective II | 6 | 3 |
| | Free Elective III | 6 | | 3 | Free Elective IV | 6 | 3 |
| | | | | PROJ 300 | Summer Internship | 3 | 0 |
| | | 30 | | 15 | | 32 | 15 |

| | | 4th YEAR | | | | | |
|------|-------------------|--------------|------------|-----------|--------------------|-----------|------------|
| | | 7th Semester | | | 8th Semester | | |
| Code | Title | ECTS | SU Credits | Code | Title | ECTS | SU Credits |
| | Area Elective III | 6 | | 3 | Area Elective V | 6 | 3 |
| | Area Elective IV | 6 | | 3 | Area Elective VI | 6 | 3 |
| | Free Elective V | 6 | | 3 | Free Elective VIII | 6 | 3 |
| | Free Elective VI | 6 | | 3 | Free Elective IX | 6 | 3 |
| | Free Elective VII | 6 | | 3 | Free Elective X | 6 | 3 |
| | | 30 | | 15 | | 30 | 15 |

Curriculum: Specialization Tracks

30 SU credits, excluding "University Courses" must be completed.

- This allows a wide variety of specialization tracks:
- Computer programming,
- Accounting and finance,
- Corporate finance, financial management, behavioral finance,
- International Law,
- Comparative political studies,
- Social theory,
- Political Sociology, ...

Curriculum: Further Specialization

- Internship opportunities,
- Independent Study,
- PURE and Özgür Proje.

Double Major Opportunities

According to latest figures, the following is the list of programs with which students are doing double majors:

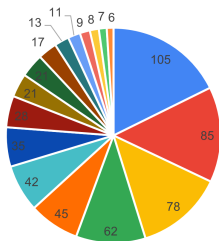
- CS
- Management,
- Industrial engineering,
- International studies,
- Electronics engineering,
- Materials science and NANO engineering,

Minor Opportunities

- Energy, Physics, Mathematics, Chemistry
- Philosophy, Art Theory and Criticism, Gender and Women's Studies, Decision and Behavior, Conflict Analysis and Resolution
- Finance, Entrepreneurship, Business Analytics.

Our Graduates - Economics

Economics BA



- Finance & Banking
- Consulting
- Academia & Education
- Others
- Government & Public Sector
- Energy & Utilities
- Technology & IT
- Entrepreneurship & Startups
- Manufacturing & Retail
- Media & Entertainment
- Real Estate & Construction
- Transportation & Logistics
- Marketing & Sales
- Healthcare & Pharmaceuticals
- Hospitality & Tourism
- Non-profit & NGOs
- Legal & Compliance

Our Graduates - MA Program

MA Program



■ Banking/Finance

■ Research/Analytics

■ Others/Unknown

■ Information Technology

■ Manufacturing/Automotive

■ Academia/Education

■ Government/Non-Profit Organizations

■ Consulting

■ Healthcare/Pharmaceuticals

■ Retail/E-commerce

Our Graduates - Country

| Country | Count |
|----------------|-------|
| Türkiye | 368 |
| USA | 45 |
| United Kingdom | 34 |
| Netherlands | 16 |
| Germany | 14 |
| United Arab Em | 10 |
| France | 7 |
| Switzerland | 6 |
| Canada | 6 |
| Austria | 6 |
| Sweden | 4 |
| Azerbaijan | 3 |
| Australia | 3 |
| Pakistan | 3 |
| Poland | 2 |
| Holland | 2 |
| Morocco | 2 |
| Luxembourg | 2 |
| Denmark | 1 |
| Ukraine | 1 |
| Thailand | 1 |
| New Zealand | 1 |
| Croatia | 1 |
| Belgium | 1 |
| Ireland | 1 |
| China | 1 |
| Italy | 1 |

Our Graduates - Company

| Company | Number of |
|---|-----------|
| Akbank | 7 |
| PwC | 7 |
| Getir | 7 |
| Yapı Kredi | 4 |
| IFC - International Finance Corporation | 4 |
| Trendyol Group | 4 |
| Unilever | 4 |
| Arçelik Global | 4 |
| McKinsey & Company | 4 |
| KPMG Türkiye | 4 |
| Şişecam | 3 |
| Procter & Gamble | 3 |
| Amazon | 3 |
| AstraZeneca | 3 |
| PepsiCo | 3 |
| EY | 3 |
| QNB Finansbank | 3 |
| Google | 3 |
| ÜNLU & Co | 3 |
| ING Türkiye | 3 |
| L'Oréal | 2 |
| Teknosa | 2 |
| Apple | 2 |

Our Graduates

McKinsey
&Company



KPMG



L'ORÉAL

AKBANK



GlaxoSmithKline



HSBC



General Electric

Deloitte.

Our Graduates

