

Expand Your Career Opportunities

Become more competitive in today's job market with industry-focused certificates

ENERGY ECONOMICS CERTIFICATE

This certificate equips you to tackle today's and tomorrow's energy challenges head-on. It delves deep into energy choices, policies, and technologies, examining their impacts on economic sustainability, societal welfare, and environmental conditions. It boosts your competitiveness for a fulfilling **CAREER** in the **ENERGY SECTOR**.

The certificate requires a total of four courses (12 hours).

Required two Economics courses (six hours):

- ECON 4440 Environmental and Natural Resource Economics (fall & spring semesters)
- ECON 4540 Energy Economics (fall & spring semesters)

Select two (2) Engineering courses (six hours):

- CHEM ENG 5658 (MIN ENG 5658) (NUC ENG 5658) (ECON 5658) Building Sustainability & ESG
- CHEM ENG 5325 Carbon Capturé Process Engineering
- ELEC ENG 3540 Power System Design and Analysis
- ELEC ENG 5150 Photovoltaic Systems Engineering
- ELEC ENG 5510 Electric-Drive Vehicles
- ENG MGT 5513 Energy and Sustainability Management Engineering
- ENV ENG 5605 Environmental Systems Modeling
- ENV ENG 5642 Sustainability, Population, Energy, Water, and Materials
- ENV ENG 5662 Air Pollution Control Methods
- MECH ENG 5541 Applied Energy Conversion
- MECH ENG 5543 Energy Efficiency of Vehicles
 MIN ENG 3512 (ECON 3512) or MIN ENG 5532 Mining Industry Economics
- MS&E 5230 Energy Materials
- PET ENG 4531 Natural Gas Engineering
- PET ENG 4590 Subsurface Energy Economics
- PET ENG 5050 Carbon Storage
- PET ENG 5801 Petroleum Data Analytics
- NUC ENG 4207 Nuclear Fuel Cycle
- NUC ENG 5281 Probabilistic Risk Assessment

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For more info!

GUIDE

for ENGINEERING MAJORS to Add Economics as a Secondary Major

ECONOMICS AS A SECONDARY MAJOR:

For engineering students seeking to elevate their studies, S&T's STEM Economics program prepares them as future industry leaders capable of leveraging core economic principles and quantitative methods to articulate and make recommendations for technological and innovation investments aligned with the current and anticipated economic landscape. With expertise in market dynamics, global business, data analytics, and public policies, they possess the essential skill set for strategic decision-making crucial to engineering projects in any organization.

Required a total of 10 courses (30 credit hours):

For most engineering majors, adding only five (5) Economics courses will earn you Economics as a secondary major:

- 1. ECON 1100 Principles of Microeconomics
- 2. ECON 1200 Principles of Macroeconomics
- 3. ECON 3300 Introduction to Econometrics (fall semester)
- 4. ECON 5360 Data-Driven Strategic Insights (fall semester)
- 5. ECON 4440 Environmental and Natural Resource Economics
- 6. ECON 4540 Energy Economics
- 7. Engineering course #1 [select qualified courses
- 8. Engineering course #2 **from the reversed page.**]

9. A qualifying programming course (equivalent to ECON 3333)

10. MECH ENG 1720, or STAT 3111, STAT 3113, STAT 3115, or STAT 3117.



Contact **Dr. Melody Lo**, the Economics department chair, at melodylo@mst.edu or 573-341-4618.

Additional Economics Industry-Focused Certificates to Consider:

Decision Data Analytics

- ECON 3300 Introduction to Econometrics
- ECON 3333 Computational Economics
- ECON 5360 Data-Driven Strategic Insights
- ECON 5380 Data Intelligence Using Case Studies

Financial Economics & Technology

ECON 3333 Computational Economics

5, 6, 7, 8

are for the

Energy Economics

Certificate

- ECON 4383 Financial Economics
- MATH 5737 Financial Mathematics
- ECON 5360 Data-Driven Strategic Insights

Note: ECON 5360 & ECON 5380 are Taught by Industry Executives.