

BUSINESS, ENERGY, ENVIRONMENT AND SUSTAINABILITY, MBA

The MBA Major in Business, Energy, Environment and Sustainability (“BEES”) is designed to provide in-depth foundations for those interested in the complex relationships between business and the natural environment, management of environmental risks, and the business and economics of energy. As global energy markets grow and change rapidly and environmental challenges rise, there is a strong need for a new generation of expert business leaders who understand the rapidly evolving trends in business models, technology, regulation, and financing. Students choosing the BEES MBA Major are therefore ideally suited for the ever-expanding set of careers in energy companies, clean-tech investing, energy banking, consulting, the non-profit world, and the government. Students will gain insight into these challenges through an inter-disciplinary approach. Relevant courses are offered by departments including Accounting, Business Economics and Public Policy, Finance, Legal Studies and Business Ethics, Management, Marketing, and Operations Information and Decisions. This Concentration/Major is jointly administered by the Business, Economics and Public Policy Department, the Legal Studies and Business Ethics Department, and the Management Department. The Faculty Advisors to this Concentration/Major are Professors Arthur van Benthem (BEPP), Vit Hennisz (MGMT) and Sarah Light (LGST). Questions from current Wharton students regarding this Major should be directed in the first instance to Sara Jane McCaffrey. Prospective students should contact the Admissions Office (<https://mba.wharton.upenn.edu/mba-application-requirements/>).

Please Note – Students who declared BEES during or prior to Spring 2023 (prior to updates to the BEES major) may either follow the current rules listed here or the prior rules set forth at the bottom of the web page listed below.

For more information: <https://esg.wharton.upenn.edu/students/mba-bees-major/>

Business, Energy, Environment, and Sustainability Major Requirements (As of Fall 2023)

Code	Title	Course Units
Major Requirements		4
The BEES major is fulfilled by completing a total of 4.0 credit units from the following list of courses approved for the major. At least three of these credit units (3.0 cu) must be from the “Environmental” course list. Up to one credit unit (1.0 cu) of coursework may be either from the “Social and Governance” course list or from the list of pre-approved non-Wharton courses (also below) with advance permission from the faculty advisors.		
A minimum of 19 course units is required for graduation. Major electives taken on a pass/fail basis cannot be counted toward the BEES Major.		

Environmental

Select at least 3 course units from the following:

ACCT/BEPP 7640	Climate and Financial Markets
BEPP/OIDD 7610	Risk Analysis and Environmental Management
BEPP/OIDD 7630	Energy Markets & Policy
FNCE 7560	Energy Finance
LGST 8150	Environmental Management: Law and Policy
LGST 6470	The Business and Governance of Water
LGST/OIDD 7620	Environmental Sustainability and Value Creation
MGMT 7230	Strategy and Environmental Sustainability
MGMT 8970	Global Modular Course A (on Sustainability; in Germany, by application)
OIDD 5250	Thinking with Models: Business Analytics for Energy and Sustainability
<i>Social and Governance:</i>	
Select up to 1 course unit from the following:	
ACCT 7470	Financial Disclosure Analytics
BEPP 7700	Public Finance and Policy
BEPP 7650	Economics of Diversity and Discrimination
FNCE 7540	ESG and Impact Investing
FNCE 8020	Shareholder Activism
LGST 6420	Big Data, Big Responsibilities: Toward Accountable Artificial Intelligence
LGST 6430	Other People’s Money: The Law, Politics, and History of Financial Institutions
LGST 8020	Law of Corporate Management and Finance
LGST 8080	Employment Law
LGST 8200	International Business Ethics
LGST 8300	Social Impact and Responsibility: Foundations
MGMT 6240	Leading Diversity in Organizations
MGMT 6250	Corporate Governance, Executive Compensation and the Board
MGMT 7200	Corporate Diplomacy
or MGMT 7150	Political Environment of the Multinational Firm
MGMT 7860	Reforming Mass Incarceration and the Role of Business
MGMT 8120	Social Entrepreneurship
MGMT 8970	Global Modular Course A (Impact Hack)
MKTG 7330	Marketing for Social Impact
REAL/FNCE 7300	Urban Fiscal Policy
<i>University Courses:</i> ¹	
CBE 5050	Carbon Capture
EAS 3010/5050	Climate Policy and Technology
EAS 3060/5060	Electricity and Systems Markets
EAS 4020	Renewable Energy and Its Impacts: Technology, Environment, Economics, Sustainability.

ENVS 6300	The Future of water
ENVS 6550	Life Cycle Assessment
ENVS 6840	Energy, Waste and the Environment
ENVS 6440	Meaningful Participation: Race, Place and Environmental Justice
LAW 6130	Climate Change
LAW 9190	Law Seminar
Total Course Units	4

¹ In order to enroll in non-Wharton courses, Wharton MBA policy is to email mbaprogram@wharton.upenn.edu. In addition, to obtain permission to count a non-Wharton course toward the BEES major, please contact Sara Jane McCaffrey at mcsa@wharton.upenn.edu. Pass/Fail courses may not be counted toward the major.

For Students enrolled prior to Spring 2023

A minimum of 19 course units is required for graduation.

Major electives taken on a pass/fail basis cannot be counted toward the Business, Energy, Environment and Sustainability major.

Code	Title	Course Units
Business, Energy, Environment, and Sustainability Major Requirements (prior to Spring 2023)		
Select 4 course units: *		4
<i>At least 3 course units of the following Wharton courses:</i> *		
BEPP/OIDD 7630	Energy Markets & Policy	
FNCE 7540	ESG and Impact Investing	
LGST/OIDD 7620	Environmental Sustainability and Value Creation	
LGST 8150	Environmental Management: Law and Policy	
MGMT 7200	Corporate Diplomacy	
MKTG 7330	Marketing for Social Impact	
OIDD 5250	Thinking with Models: Business Analytics for Energy and Sustainability	
OIDD/BEPP 7610	Risk Analysis and Environmental Management	
<i>Up to 1 course unit of a non-Wharton course (with prior approval of Program Director)</i> *		
Non-Wharton courses include:		
CBE 5050	Carbon Capture	
EAS 5010	Energy and its Impacts: Technology, Environment, Economics, Sustainability.	
EAS 5020	Renewable Energy and Its Impacts: Technology, Environment, Economics, Sustainability	
EAS 5050	Climate Policy and Technology	
EAS 5060	Electricity and Systems Markets	
ENVS 6300	The Future of water	
ENVS 6550	Life Cycle Assessment	
LAW 9190	Law Seminar	

MEAM 5020	Energy Engineering in Power Plants and Transportation Systems	
Electives		
Select 5.5 course units of electives		5.5
MBA Core Requirements		9.5
Total Course Units		19

* The BEES MBA Major requires four course units. At least three course units must be from the list of Wharton courses. Up to one course unit may be from the list of pre-approved non-Wharton courses. If a student believes that a course is missing from this list, they may petition the Director of the BEES Major to add the course to the list prior to the start of the semester in which the course will be taken, or at the latest, within the first two weeks of the semester. Requests after a course has been completed will not be granted. The request should include a copy of the syllabus for the course and a brief statement as to why the course should be added. Courses that are likely to be approved are non-Wharton courses in which the primary focus is on topics relating to energy, environment, and sustainability, such as those listed here: <https://kleinmanenergy.upenn.edu/energy-courses> (<https://kleinmanenergy.upenn.edu/energy-courses/>).

MBA Core Requirements

Code	Title	Course Units
Accounting		
Select one of the following:		0.5-1
ACCT 6110	Fundamentals of Financial Accounting	
ACCT 6130	Fundamentals of Financial and Managerial Accounting	
Finance ¹		
<i>Corporate Finance</i>		
Select one of the following:		0.5-1
FNCE 6110	Corporate Finance	
FNCE 6210	Corporate Finance (Half CU)	
<i>Macroeconomics</i>		
Select one of the following:		0.5-1
FNCE 6130	Macroeconomics and the Global Economic Environment	
FNCE 6230	Macroeconomics and The Global Economic Environment (Half CU)	
Legal Studies		
LGST 6110	Responsibility in Global Management	0.5
or LGST 6120	Responsibility in Business	
or LGST 6130	Business, Social Responsibility, and the Environment	
Microeconomics		
BEPP 6110	Microeconomics for Managers: Foundations	0.5
BEPP 6120	Microeconomics for Managers: Advanced Applications	0.5
Management		
MGMT 6100	Foundations of Teamwork and Leadership	0.5
MGMT 6110	Managing Established Enterprises	1
or MGMT 6120	Management of Emerging Enterprises	
Marketing		

MKTG 6110	Marketing Management	0.5
MKTG 6120	Dynamic Marketing Strategy	0.5
or MKTG 6130	Strategic Marketing Simulation	

OIDD

Select one unit of the following: 0.5-1

OIDD 6110	Quality and Productivity	
OIDD 6120	Business Analytics	
OIDD 6130	Online Business Models and the Information-Based Firm	
OIDD 6140	Innovation	
OIDD 6150	Operations Strategy	
OIDD 6620	Enabling Technologies	
OIDD 6900	Managerial Decision Making	

Statistics

STAT 6130	Regression Analysis for Business ²	1
or STAT 6210	Accelerated Regression Analysis for Business	

Management Communication

Select one of the following options: 0.5

Option 1

WHCP 6110	Management Communication	
WHCP 6120	Advanced Persuasive Speaking	
or WHCP 611	Communication Challenges for Entrepreneurs	
or WHCP 621	Persuasive Writing for Business Leaders	

Option 2

WHCP 6160	Management Communication	
or WHCP 611	Entrepreneurial Communication	

Total Course Units 9.5

¹ Students cannot enroll in both FNCE 6210 and FNCE 6230.

² STAT 6210 is by placement only.

The degree and major requirements displayed are intended as a guide for students entering in the Fall of 2024 and later. Students should consult with their academic program regarding final certifications and requirements for graduation.
