Technical focus options

Fuel and Combustion
Must take 2 courses from required section and any combination of courses from elective section.

Required (2 courses)
ME 501 Combustion Fundamentals
ME 503 Design of Int. Comb. Engines

Electives
ABE 436 Renewable Energy Systems
CEE 445 Air Quality Modeling
CEE 446 Air Quality Engineering
CEE 447 Atmospheric Chemistry
CEE 545 Aerosol Sampling & Analysis
CEE 546 Air Quality Control
GEOL 540 Petroleum Geology
ME 400 Energy Conversion Systems
ME 403 Internal Combustion Engines
NPHE 470 Fuel Cells & Hydrogen Sources

Energy in the Built Environment
Must take 1 course from required section and any combination of courses from elective and required section.

Required (1 course)
ARCH 441 Heat & Moisture in Buildings
ARCH 580 Adv Sustainability Principles

Electives
ARCH 544 Bldg Sys & Design Integration
ME 400 Energy Conversion Systems
ME 401 Refrigeration & Cryogenics
ME 402 Design of Thermal Systems
ME 502 Thermal Systems
MSE 489 Matl Select for Sustainability

Design and Process for High Thermal Efficiency
Must take 1 course from each required section and any combination of courses from elective and required sections.

Required (1 course)
ME 401 Refrigeration & Cryogenics
ME 402 Design of Thermal Systems
ME 502 Thermal Systems

Required (1 course)
ME 411 Viscous Flow & Heat Transfer
ME 420 Intermediate Heat Transfer
ME 520 Heat Conduction
ME 521 Convective Heat Transfer
ME 522 Thermal Radiation

Electives
CHBE 421 Momentum & Heat Transfer
CHBE 451 Transport Phenomena
CHBE 523 Heat & Mass Transfer
ME 400 Energy Conversion Systems
ME 404 Intermediate Thermodynamics
ME 472 Introduction to Tribology
ME 504 Multiphase Sys & Processes
MSE 401 Thermodynamics Of Materials
MSE 488 Optical Materials

Technical minor options
The following courses are approved for the technical minor requirement.*

Agricultural and Consumer Economics
ACE 406 Environmental Law
ACE 411 Environment and Development
ACE 448 Rural Real Estate Appraisal
ACE 453 Econ Dev in S & SE Asia
ACE 454 Econ Dev of Tropical Africa
ACE 471 Consumer Economic Policy
ACE 474 Economics of Consumption
ACE 500 Applied Economic Theory
ACE 501 Risk and Info: Theory and App
ACE 510 Adv Natural Resource Economics
ACE 516 Environmental Economics
ACE 527 Advanced Price Analysis
ACE 530 Microeconometrics
ACE 553 Topics in Regional Development
ACE 555 Economic Impact Analysis

Anthropology
ANTH 467 Cultures of Africa
ANTH 504 Colonialism & Postcolonialism
ANTH 505 Global Modernities

Atmospheric Sciences
ATMS 420 Atmospheric Chemistry
ATMS 421 Earth Systems Modeling
ATMS 425 Air Quality Modeling
ATMS 447 Climate Change Assessment
ATMS 449 Biogeochemical Cycles
ATMS 511 Atmospheric Radiation
ATMS 512 Clouds and Climate

Business Administration
BADM 403 Principles of Business Law
BADM 553 Ethical Dilemmas in Business

Biophysics
BIOP 432 Photosynthesis

Chemistry
CHEM 440 Physical Chemistry Principles
CHEM 442 Physical Chemistry I
CHEM 460 Green Chemistry
CHEM 524 Electrochemical Methods
CHEM 544 Statistical Thermodynamics

Community Health
CHHL 461 Environ Toxicology & Health
CHHL 469 Environmental Health

Crop Sciences
CPSC 431 Plants and Global Change

Economics
ECON 411 Public Sector Economics
ECON 420 International Economics
ECON 450 Development Economics
ECON 452 The Latin American Economies
ECON 462 Macroeconomic Policy
ECON 481 Govt Reg of Economic Activity
ECON 483 Econ of Innovation and Tech
ECON 484 Labor Economics
ECON 500 General Microeconomic Theory
ECON 501 Quantitative Analysis for Econ
ECON 502 Microeconomic Theory I
ECON 503 Macroeconomic Theory I
ECON 504 Microeconomic Theory II
ECON 505 Macroeconomic Theory II
ECON 509 General Macroeconomic Theory
ECON 516 Environmental Economics
ECON 517 Political Economy
ECON 520 International Trade Theory
ECON 521 Topics in International Econ
ECON 523 Business International Econ
ECON 550 Econ of Development and Growth
ECON 581 Govt Regulation of Industry

Environmental Studies
ENVS 444 Social Impact Assessment

Earth, Society, and Environment
ESE 466 Environmental Policy
ESE 482 Challenges of Sustainability

Geography
GEOG 455 Geog of Sub-Saharan Africa
GEOG 465 Transp and Sustainability
GEOG 466 Environmental Policy
GEOG 467 Dynm Simul of Nat Res Problems
GEOG 520 Political Ecology

Geology
GEOL 450 Petroleum Geology

Integrative Biology
IB 452 Ecosystem Ecology

Natural Resources and Environmental Sciences
NRES 410 Applied Natural Resource Econ
NRES 427 Modeling Natural Resources
NRES 439 Env and Sustainable Dev
NRES 508 Community & Natural Resources
NRES 540 Public Involvement in Res Mgmt

Political Science
PS 457 Dem Gov in a Global Setting
PS 480 Energy and Security
PS 503 US Congress
PS 505 Law and Politics
PS 507 Collect Action & Interest Grps
PS 543 Global Democratization
PS 544 Politics of African States
PS 582 Intl Political Economy

Sociology
SOC 427 Latin Amer Social Pol Inst
SOC 447 Environmental Sociology

Technology Entrepreneurship
TE 565 Technol Innovation & Strategy

Urban and Regional Planning
UP 430 Urban Transportation Planning
UP 441 Land Resource Evaluation

*Some courses listed may have prerequisites. Students should contact the department teaching the course to inquire about prerequisite enforcement.