

| Course Number | Course Title | Credits |
|-----------------|---|---------|
| BAE 503 | Fundamentals of Biorenewable Resource Engineering | 3 |
| BAE 504 | Biofuels Production | 3 |
| BAE 505 | Thermochemical Processing of Biomass | 3 |
| BAE/EE/EGR 543 | Solar Cell Devices and Systems for Electrical Energy Generation | 3 |
| BAE/ME 580 | Heating, Ventilating and Air Conditioning | 3 |
| CE 351 | Introduction to Environmental Engineering | 3 |
| CE 433 | Railway Freight and Passenger Operations and Intermodal Transportation | 3 |
| CE 533 | Railroad Facilities Design and Analysis | 3 |
| CE/EGR 553 | Environmental Consequences of Energy Production | 3 |
| CHE 565 | Environmental Chemistry | 3 |
| CME 425 | Heat and Mass Transfer | 3 |
| CME 515 | Air Pollution Control | 3 |
| CME/EGR/MFS 523 | Concepts, Assessment Tools, and Methods in Sustainable Power and Energy | 3 |
| CME 580 | Design of Rate and Equilibrium Processes for Water Pollution Control | 3 |
| CME/EGR 542 | Electric Power Generation Technologies | 3 |
| EE 415G | Electromechanics | 3 |
| EE 416G | Energy Conversion Lab | 2 |
| EE 503 | Power Electronics | 3 |
| EE 517 | Advanced Electromechanics | 3 |
| EE 518 | Electric Drives | 3 |
| EE 531 | Alternative and Renewable Energy Systems | 3 |
| EE 532 | Smart Grid: Automation and Control of Power Systems | 3 |
| EE 533 | Advanced Power System Protection | 3 |
| EE 535 | Power Systems: Generation, Operation, and Control | 3 |
| EE 536 | Power System Fault Analysis and Protection | 3 |
| EE 537 | Electric Power Systems I | 3 |
| EE 538 | Electric Power Systems II | 3 |
| EE 539 | Power Distribution Systems | 3 |
| EE/EGR 546 | Electric Power Systems Fundamentals | 3 |
| EE 599 | Topics in Electrical Engineering: Pwr Sys Anly using Adv Softw | 3 |
| EGR 240 | Global Energy Issues | 3 |
| EGR 540 | Power Economics and Public Policy | 3 |
| EGR/CME 542 | Electric Power Generation Technologies | 3 |
| EGR/EE 546 | Electric Power Systems Fundamentals | 3 |
| EGR 549 | Power and Energy Experiences | 3 |
| EGR/CE 553 | Environmental Consequences of Energy Production | 3 |
| ME 321 | Engineering Thermodynamics II | 3 |
| ME 325 | Elements of Heat Transfer | 3 |
| ME 515 | Rotordynamics of Turbomachinery | 3 |
| ME 530 | Gas Dynamics | 3 |
| ME 548 | Aerodynamics of Turbomachinery | 3 |
| ME 549 | Power Generation | 3 |
| ME 563 | Basic Combustion Phenomena | 3 |
| MNG 511 | Mine Power System Design | 3 |
| MNG 575 | Coal Preparation Design | 3 |
| | | |

Special Topics Courses (XXX 599) that are Power and Energy Electives

| | |
|---|---|
| Topics in Chemical Engineering: Sustainable Power and Energy | 3 |
| Topics in Chemical Engineering: Renewable Energy I | 3 |
| Topics in Chemical Engineering: Renewable Energy II | 3 |
| Topics in Chemical Engineering: Biological Conversion of Biomass to Fuels and Chemicals | 3 |
| Topics in Chemical Engineering: Electrochemical Energy Storage | 3 |
| Topics in Electrical Engineering: Power Systems Operation | 3 |
| Topics in Engineering: Smart Grid Communications and Information Systems | 3 |
| Topics in Engineering: Nuclear Engineering | 3 |
| Topics in Mechanical Engineering: Nuclear Engineering | 3 |
| Topics in Mechanical Engineering: System Thinking for Sustainability | 3 |
| Topics in Mechanical Engineering: Energy Assessment | 3 |
| Topics in Mechanical Engineering: Sustainable Pwr Enrgy Assessmnt | 3 |
| Topics in Materials Science: Electrochemical Energy Storage | 3 |