Master of Science in Earth and Environmental Engineering
Concentration in Sustainable Energy

Core courses for Sustainable Energy concentration:
EAEE E4220: Energy System Economics and Optimization (Fall)
EAEE E4300: Introduction to carbon management (Fall) – will offer starting fall 2021
EAEE E4002: Alternative Energy Resources (Spring)

Recommended courses for Fall semester:
MECE E4211: Energy sources and conversion (fall)
EAEE E4180: Electrochemical Energy Storage (Fall, only offered in odd years)
EAEE E6181: Adv. Electrochemical Energy Storage Systems (Fall, only offered in even years)
CHEN E4231: Solar fuels (Fall)
EAEE E4550: Catalysis for emission control (Fall)
MECE E4312: Solar thermal engineering (Fall)
APAM E4130: physics/solar energy (Fall)
EAEE E4190: Photovoltaic systems engineering and sustainability (Fall)
CHEN E4201: Engineering Applications of Electrochemistry (Fall)
EAEE E4001: Industrial Ecology of Earth Resources (Fall)

Recommended courses for Spring semester:
EAEE E4305: CO\textsubscript{2} utilization and conversion (Spring)
MECE E4302: Advanced Thermodynamics (Spring)
EAEE E4257: Environmental Data Analysis and modeling (Spring)
EAEE E4160: Solid and hazardous waste management (Spring)
EAEE E4150: Air pollution prevention and control (Spring)
CHEE E4228: Separation Science and Technology (Spring)
EAEE E6140: Physicochemical Processes (Spring)
EAEE E4011: Industrial Ecology of Manufacturing (Spring) – This course will be offered in Spring 2021 but will not be offered after that.
EAEE E6150: Industrial catalysis (spring) – In 2021, it will be offer in summer instead of in spring.

Other elective courses:
EAEE E4200: Introduction to Sustainable Production of Earth Minerals & Metal Resources (Fall)
EAEE E4003: Introduction to Aquatic Chemistry (Fall)
CHEE E4252: Introduction to surface and colloid chemistry (Fall)
CHEN E4140: Engineering separations (Fall)
CHEN E4235: Surface reactions & kinetics (Fall)
CHEE E6252: Advanced surface and colloid chemistry (Fall)