## **Energy and Sustainability (graduate certificate)**

Students should choose one elective from each of the categories listed below:

## Technical fundamentals of energy systems (3 credits):

- SOS 571: Sustainable Energy Technologies and Systems
- CEE 516: Sustainable Energy and Material Use
- CEE 598: Sustainable Energy Technologies
- EGR 598: Alternative energy

## **Energy policy and governance** (3 credits):

- SOS 573: Sustainable Energy Policy

## Restricted elective: other energy courses offered at ASU (3 credits):

- ATE 560: Building Energy Analysis
- CEE 506/SOS 546: Life Cycle Assessment
- ERM 598: Algae in Water/Energy/Food Nexus
- GCU 591: Recycling Energy Landscapes
- GCU 542: Geographical Analysis of Transportation
- GTD 512: International Governance and Development of Nuclear Technologies
- HSD 598: Climate Change, Energy, and Social Justice
- MAE 579: Wind Energy
- MAE 582: Renewable Energy: Mechanical Systems
- MAE 585: Solar Thermal Engineering
- PUP 550: Transportation and the Environment
- SEC 598: Operations and Maintenance of Photovoltaic Systems
- SEC 598: PV Systems Engineering
- SEC 598: Solar Commercialization