The Texas A&M Energy Institute's certificate program, the Certificate in Energy, will be offered by taking 10 modules of the Master of Science in Energy degree program either in residence or on-line. Seven modules will be from the required/foundational module list and three from the prescribed elective/specialized module list.

## Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Semester Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICPE 601</td>
<td>Environmental Issues of Energy Systems</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 602</td>
<td>Reservoir Characterization and Modeling</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 603</td>
<td>Bioenergy</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 604</td>
<td>Energy Systems Engineering I</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 607</td>
<td>Energy Accounting</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 608</td>
<td>Beyond Science and Technology: The Role of Policy in Future of Energy in the U.S.</td>
<td>1.5</td>
</tr>
<tr>
<td>ICPE 609</td>
<td>Introduction to U.S. Energy Law and Policy</td>
<td>1.5</td>
</tr>
</tbody>
</table>

**Prescribed Electives**

Select three of the following: 4.5

- ICPE 605 Energy Systems Engineering II
- ICPE 606 Introduction to Optimization
- ICPE 610 The Global Energy Future
- ICPE 611 Economics of Energy
- ICPE 612 Entrepreneurship in Energy
- ICPE 613 Natural and Shale Gas Monetization: Technologies, Fundamentals, Economics and Applications
- ICPE 614 CO2 Sequestration
- ICPE 615 Smart Grid Fundamentals
- ICPE 616 Multi-functional Materials for Energy Conversion
- ICPE 617 Gas Separations for Energy: Fundamentals, Applications and New Directions
- ICPE 618 Carbon Capture, Utilization and Storage, CCUS
- ICPE 619 Nanomaterials Engineering and Energy Storage
- ICPE 620 Thermoelectric Materials and Devices
- ICPE 621 Thermoelectrics: Fundamentals of Electronic and Thermal Transport
- ICPE 622 Energy Efficiency in Buildings
- ICPE 623 Water-Energy-Food Nexus: Towards Sustainable Resource Allocation
- ICPE 624 Energy-Water-Nexus
- ICPE 625 Integrated Risk Management for Exploration and Production Projects
- ICPE 626 Safety in Energy Systems
- ICPE 627 Interfacial Phenomena of Energy Systems
- ICPE 628 Multi-physics Geomechanisms for Energy Applications

Total Semester Credit Hours 15