ENERGY, MINOR

The Department of Mechanical Engineering has a strong Thermofluids Systems (TFS) group that is research active with wide expertise in thermal and energy systems including clean, renewable and sustainable energy as well as energy management. This Energy minor will educate students in the TFS domain of Energy and will be accessible to non-ME students, e.g., Electrical Engineering, Computer Science, Chemical Engineering, Aerospace Engineering, Mathematics and Physics to just name a few. Students going through this minor will be prepared to enter a diverse and globally competitive workforce with interdisciplinary knowledge that can meet next-generation challenges relating to energy.

Energy production and utilization, and their effect on our environment, are the pressing issues of our age. Satisfaction of growing energy demand, in the face of declining conventional (petroleum and coal, for example) resources represents a challenge for the coming generations. This minor in Energy will prepare engineers-of-tomorrow to meet this challenge. The University of Alabama possesses significant strength in these areas, and there is a significant demand for students.

This program is technical in nature and is designed to provide engineers, technicians, and policymakers with the depth of knowledge required to analyze a variety of challenging energy problems. This minor is open to all students interested in energy production and utilization but is most accessible to students in the College of Engineering. Students from other engineering disciplines, or from other colleges, can complete the minor, but may require additional coursework.

The minor in Energy required a minimum of 18 hours of coursework.

Code and Title		Hours
Required Coursework:		**9-10**
ECE 225 or ECE 320	Electric Circuits Fundmtl Electrical Engr	
ME 215	Thermodynamics I	
ME 309	Heat Transfer	
Approved Electives:		**9**
Additional courses may be added to the list of approved electives as appropriate with advisor and faculty approvals.		
ECE 350	Electric Power & Machines	
ME 406	Thermal Power Systems	
ME 407	Heatg Ventilat Air-Condg	
ME 411	Cmp Heat Transfer & Fluid Flow	
ME 414	Principles of Combustion I	
ME 416	Energy Conservtn & Manag	
ME 417	Sustainable Energy	
ME 426	Internal Combustion Engines	
ECE 453 & ECE 454	Power Systems and Power Systems Laboratory	
ECE 455	Electromechanical Systems	
Total Hours		**18-19**