Sustainable Engineering Minor (Minor Code = SUSE)

A Sustainable Engineering Minor is available to students in the College of Engineering. The minor will be granted on the completion of the following 18 cr hrs.

The core requirements (12 crs) are:

- CE 35500 Engineering Environmental Sustainability 3crs
- EEE 43000 Industrial Ecology and Life Cycle Analysis 3crs
- AGEC 40600 Natural Resource and Environmental Economics 3crs
- POL 32700 Global Green Politics 3crs

And 6-credit hours (3crs public policy and 3crs technical) from the following approved elective requirements*:

Public Policy
- PHIL 29000 Environmental Ethics 3crs
- POL 22300 Introduction to Environmental Policy 3crs
- POL 42500 Environmental Law and Politics 3crs
- POL 52300 Environmental Politics and Public Policy 3crs

Sustainable Energy Options
- ABE 58000 Process Engineering of Renewable Resources 3crs
- ABE 59100 Biomass Feedstock Systems Engineering 3crs
- CHE 55800 Rate Controlled Separation Processes 3crs
- CHE 59700 Advanced Solar Energy Conversion 3crs
- ECE 59500 Physics and Manufacturing of Solar Cells 3crs
- ME 59700 Bio-energy and Bio-fuels 3crs
- ME 59700 Solar Energy 3crs
- ME 59700 Sustainable Energy Options and Analysis 3crs
- ME 59700 Wind Energy and Turbines 3crs

Sustainable Design and Construction
- AD 39700 Sustainability in the Built Environment 3crs
- BCM 41900 Sustainable Construction 3crs
- CE 59700 Sustainable Building Design Construction and Operation 3crs
- ME 55300 Product and Process Design 3crs
- ME 59700 Sustainable Design and Manufacturing 3crs

Energy Utilization and Equipment
- ECET 581C00 Efficient Energy Systems 3crs
- ME 44000 Automotive Prime Movers: Green Engines and Clean Fuels 3crs

Agricultural/Environmental Sustainability
- AGRY 57500 Soil and Nutrient Management 3crs
- ASM 33600 Environmental Systems Management 3crs
- BIOL 48300 Environmental and Conservation Biology 3crs

* Provided the 18 hrs are successfully completed with a grade of “C” or better in all of the courses, then a Sustainable Engineering Minor will be awarded. A grade of “C- or lower” in any of the minor courses is not adequate to fulfill the minor.
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CE 59700 Water Resources Sustainability  3crs

*Energy Conversion and Storage*
- NUCL 47000 Fuel Cell Engineering  3crs
- NUCL 56300 Direct Energy Conversion  3crs
- MSE 59700/ECE 59500 Materials and Devices for Solid State Energy Conversion  3crs

Generally, all of the above prescribed minor courses must be taken at the Purdue West Lafayette campus to be eligible for the Sustainable Engineering Minor. The only exceptions to this rule are as follows:

1. One equivalent transfer course from another university can be used if it is a core course and comes from an ABET-accredited program, OR
2. One equivalent Purdue substitution may be used if it is deemed equivalent to the prescribed minor course and acceptable by the home School of the student.

No more than one substitution from either of the above two categories is acceptable for the Sustainable Engineering Minor.

Finally, as new courses are developed on campus, interested students can request a review by the Undergraduate Chairs Committee of any new courses with substantial engineering sustainability emphasis to be considered as elective options for the minor. Please contact Jim Jones (jonesjd@purdue.edu) in ME to submit your request.