

- **Date:** Fri 15 May 11:34:23 CDT 2009
- **From:** "Parish, Catherine M" <cparish@ad.uiuc.edu> [Add To Contacts](#)
- **Subject:** NPRE 475 New
- **To:** "Tucker, Charles L III" <ctucker@illinois.edu>, "Singer, Clifford E" <csinger@illinois.edu>, "Ragheb, Magdi" <mragheb@illinois.edu>, "Stubbins, James F" <jstubbin@illinois.edu>, "Forgacs, Deb" <dforgacs@uiuc.edu>, "Henderson, Teresa D" <thenders@illinois.edu>, "Kincaid, Deb" <dkincaid@uiuc.edu>, "Kuntz, Kristi" <kakuntz@sab.uiuc.edu>, "Miller, Sherry" <sherrype@uiuc.edu>, "Mosley, Jessica" <jlmosley@illinois.edu>, "Parish, Catherine" <cparish@uiuc.edu>, "Sappenfield, Mary" <msappen@express.cites.uiuc.edu>, "Stayton, Karen" <stayton@uiuc.edu>, "Themanson, Jennifer A" <jthemans@illinois.edu>, "Alford, Lacy D" <alford@illinois.edu>, "Clevenger, Brenda M" <bmclvnr@illinois.edu>, "Faullin, Michael L" <mfaullin@ad.uiuc.edu>, "Su, Jack" <jacksu@dfms.cen.uiuc.edu>, "Zych, Chet" <chetzych@express.cites.uiuc.edu>, "Adesida, Ilesanmi" <iadesida@ad.uiuc.edu>, "Coverstone, Victoria Lynn" <vcc@ad.uiuc.edu>, "Osgood, Becky" <bosgood@uiuc.edu>, "Pleck, Michael" <mhpleck@express.cites.uiuc.edu>, "Lowry, Mary K" <lowry@uiuc.edu>, "Tappenden, Kelly Anne" <tappende@illinois.edu>

On behalf of the Provost and Vice Chancellor for Academic Affairs, and with the concurrence of the appropriate campus officials, I approve the following new course in the BANNER system. This approval is given with the understanding that there are no budgetary implications. This course will appear in various publications as described below.

NPRE 475

Wind Power Systems

Credit: 3 or 4 hours.

Broad and basic coverage of wind energy systems; historical development, safety aspect, environmental considerations, wind properties and measurement, site selection, and wind turbine design; transmission systems considerations; mechanical, electrical, control aerodynamic and environmental engineering of modern wind turbines; fatigue failure; annual power production; economics and environmental aspects and accident prevention and mitigation; computational fluid dynamics (CFD) analysis of wind flow and blade interactions; energy storage options; hydrogen production; electrical power transmission issues; licensing

issues; alternative wind energy systems; design project involving a wind farm or the construction of a specific type of wind turbine based on a wind park site visit. 3 undergraduate hours. 4 graduate hours. Prerequisite: CS 101; MATH 241 or MATH 380; one of CHBE 421, ECE 110, ECE 205, ME 310, TAM 335.

Transaction: Added

Effective Date: Fall 2009

Sincerely,

Kristi A. Kuntz

Assistant Provost

KAK:cmp