

Subject: Proposed Graduate Certificate in Wind Power Science, Engineering, and Policy

Date: Monday, April 14, 2014 at 12:16:03 PM Eastern Daylight Time

From: Martin, Mary J.

To: Aparicio, Ericka M.

Old Business: Revised Graduate Certificate in Wind Power Science, Engineering and Policy.

Also, could you make this email a PDF and include it as a second item for this revised document.

From: John Madsen [mailto:jmadsen@udel.edu]

Sent: Thursday, April 10, 2014 8:21 PM

To: Martin, Mary J.; Firestone, Jeremy Mark; Lopez, Janis C.; Ullman, William J.; Targett, Nancy M.; Kempton, Willett M

Subject: Proposed Graduate Certificate in Wind Power Science, Engineering, and Policy

Mary,

Attached is a slightly revised version of our Wind Power Science, Engineering, and Policy (WSEP) Graduate Certificate Proposal. In the certificate requirements section: 1) we have added a phrase that a minimum of a B- letter grade must be attained in all courses that count towards the certificate's required 12 credits, and 2) we have added a phrase that states that only one course that is counted towards the certificate's 12 required credits can be used to satisfy the requirements of any other UD Graduate Certificate. We have discussed the second revision and the relationship between our proposed WSEP Graduate Certificate with the proposed Graduate Certificate in Renewable Energy Engineering and Policy (REEP) with Bob Opila (co-proposer of the REEP certificate) and with Nancy Targett, Dean of our College.

After having reviewed the proposed Graduate Certificate in REEP, we believe that the two certificate programs are significantly different including: 1) the number of credit requirements (12 for WSEP vs 9 for REEP); 2) the much broader nature of the REEP certificate, it covers all aspects of renewable energy (i.e., solar, geothermal, hydropower, biomass, biofuel, wind), as compared to our more focused Wind Power certificate; 3) different approaches to the curriculum requirements – we have proposed a required synthesis course, focused coursework within the three areas of wind power (i.e., science, engineering, and policy), and an additional elective course in Wind Power of the student's choosing; in contrast, the REEP certificate requires two courses – one in energy systems and one in energy policy and administration and a third elective course of their choice. Students in the REEP program, unless selecting a science-based course as an elective, would not have exposure to policy, engineering, AND science that is the hallmark of the WSEP certificate; 4) the REEP certificate may/may not include a wind-oriented course – the only way in which a student enrolled in the REEP certificate would have a wind course would be if they choose it as their one elective course. Neither of the required courses in the REEP certificate is listed in the WSEP certificate.

In fact, there is very little overlap in the coursework from the perspective of the WSEP certificate. The courses that are listed in both of the certificates are ELEG615, MAST622/UAPP626, MEEG635, and MAST628. All of these courses are listed as electives in the REEP certificate (there are a total of 12 elective courses). With only one elective to take to satisfy the REEP certificate, unless specifically focused on wind as a renewable energy source, it is not likely that there would be duplication of effort in terms of classes completed by students that might be pursuing both certificates. Our requirement that only one course used to satisfy the requirements of our WSEP certificate can be used to satisfy any other UD Graduate Certificate requirement is a middle ground approach that would allow a graduate

student to complete both certificates, if they desired, without undue overlap of coursework, or without undue burden of having to take completely separate courses.

At this time and having the approval of our Dean, unanimous approval of our College's Academic Council and Marine Policy Faculty, and *support from the Department Chairs and School and Program Directors for enrolling students in their affected courses*, we would like to move ahead and have your Graduate Studies Committee consider the Wind Power Science, Engineering, and Policy Graduate Certificate Program proposal with the revisions that we have added. I would be more than happy to attend the next Graduate Studies Committee meeting to answer any questions that the members might have concerning our proposed certificate program or its relationship to other graduate certificates.

Please feel free to share this e-mail with the members of the Graduate Studies Committee, or members of subsequent Faculty Senate review committees (Coordinating and Executive).

Thank you and let me know if you have any questions!
John M.

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