

Course Change Justification

The proposed course, *Renewable Energy: Technology and Integration*, builds on the successful offering of EE 451/551: Wind Energy, which has been well-received by students in the past and proven effective in delivering key learning outcomes. Expanding this course to cover a broader range of renewable energy technologies and focusing on their integration into modern power systems responds to the growing demand for comprehensive education on sustainable energy systems.

The integration of wind energy content into the proposed syllabus ensures continuity and depth while enhancing the curriculum with additional focus areas, such as solar energy, microgrids systems and microgrids, and the techno-economic, environmental and social opportunities and challenges of renewable energy development. These additions are critical for equipping students with the comprehensive knowledge required to address challenges like grid stability, renewable intermittency, and equitable energy access. By incorporating technical, economic, and policy perspectives, the course aligns with the pressing need to develop future leaders who can navigate the complexities of transitioning to renewable energy systems in a holistic and interdisciplinary way.