Developing and Delivering a Multi-Disciplinary Master’s Degree Program on Sustainable Energy

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Eastern Illinois University
• Public;
• East Central Illinois;
• Known for forward thinking.
wood chips, miscanthus or other chopped biomass stored in hopper for fuel

chips moved by auger as needed

d chips are “gasified” at 1350 degrees

gas is combusted in a boiler

soluble ash

campus steam

low-emissions discharge through stack

Process Flow Diagram

Courtesy Gary Reed
A call from President Perry and Provost Lord to integrate students learning with the opportunities brought with the Renewable Energy Center.
“… when you look out from the spacecraft window (is) every one of us on Earth is inextricably linked to every other one as human kind. There is really no us and them. We are one. Our very existence is linked to the workings of our home planet, this little blue marble, called Earth…” – Kathryn D. Sullivan, Commencement Speech at Illinois Mathematics and Science Academy, May 31, 2014
World energy problems are complex in nature. It requires everyone to work together to make the world better and sustainable for many generations to come.
Multi-Disciplinary Paradigm
Master of Science in Sustainable Energy

Prepares Leaders for Energy Industry

Degree Niche/Nature:
Science-Based, Technology Management Focused
Master of Science in Sustainable Energy

• Interdisciplinary program
• 10 departments at EIU participate
• Courses in:
  • Sciences
  • Technology and Management
  • Policy and Economics
  • Communication
• Sustainable Energy Research
• Practicum experience

http://www.eiu.edu/sustainable/
Collaboration with Renewable Energy Center
Practicum: Realistic Experience
Take it Further: Dual Degree Programs

- Master of Science in Technology
- Master of Business Administration
- Master of Science in Sustainable Energy
- Professional Science Master in Geographic Information Sciences
- Master of Science in Biological Sciences
Behind the Success

- Top management commitment;
- Instrumental Graduate School leadership;
- Supportive departmental chairs;
- Student-focused and caring faculty
Proven Tactics

- Sustainable Energy Board meeting once a semester;
- Collaboration meetings with Facility Planning and Management for practicum;
- Google doc for course rotation – information sharing and planning ahead;
• Integration of production at REC with research and development at CENCERE;
• Integration of multiple academic disciplines;
• Integration of sciences, technology and entrepreneurship or business development
• Integration of research and education
• Integration of elementary, undergraduate and graduate education.
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Questions and Discussions?