INCORPORATING RENEWABLE ENERGY RESOURCES INTO WORKFORCE DEVELOPMENT FOR TECHNICAL PROGRAMS

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STATEMENT OF REASON

• Workforce development, Mission of the Midlands Technical College
• Mainstream technology, affordable and available
• Mainstream acceptance, multiple installations
• South Carolina State Law, Act 236
• Minimum offerings in South Carolina
• Expansion of services to the community, Fairfield, Lexington, and Richland County
INNOVATION

• Implementing a Renewable Energy Certificate at Midlands Technical College
• Crossing technology areas to involve multiple programs
• Developing a curriculum supporting the community needs
• Flexible and viable to incorporate multiple technological applications
• Provide demonstrable applications of the technology
• Provide income for the program
GROWTH AND CREATIVITY

• Successes
  • Collaboration with faculty, staff, and industry
  • Research of various technologies for best practices
  • Learning from others
  • Excitement in exploration

• Challenges
  • Response’s from industry and organizations
  • Slow movement
  • Funding
LEADERSHIP DEVELOPMENT

• Communicating intent - Develop a plan, involve stakeholders
• Decisiveness in action - Make a decision, conduct the mission
• Challenge - Challenge assumptions and encourage divergent points of view, question the status quo
• Align - Find common ground, communicate, and achieve buy-in among stakeholders
DELIVERABLE

RENEWABLE ENERGY CERTIFICATE

**First Semester**

- **IMT 102** Industrial Safety  2.0 Credits
- **EEM 117** DC Circuits  4.0 Credits
- **EEM 118** AC Circuits  4.0 Credits
- **EEM 140** National Electrical Code  3.0 Credits
- **BCT 111** Blueprint Reading and Specifications  3.0 Credits.

**Total**  16.0 Credit Hours

**Second Semester**

- **EEM 165** Residential/Commercial Wiring  4.0 Credits
- **SOL 101** Solar Building Fundamentals  3.0 Credits
- **SOL 120** Basic Solar Energy Technology  3.0 Credits
- **SOL 201** Solar Photovoltaic Systems  4.0 Credits

**Total**  14.0 Credit Hours

**Certificate Total Credit Hours**  30.0
DIAGRAM OF IMPLEMENTATION AND EFFECTED SYSTEMS

MIDLANDS TECHNICAL COLLEGE

Supported

Industrial Technology Department

Renewable Energy Certificate

Supporting

Marketing Department

Fairfield, Lexington, and Richland County Residents

Enrollment

Information
LEARNING AND DEVELOPMENT

- Insurmountable task
- Knowledge transfer
- Drive to deliver
- Excitement within the student body
- Interest in renewable energy
- Service to the community
- Increasing energy capacity
- Effects on individuals
As renewable energy sources, such as photovoltaic and wind turbines, are becoming more prevalent in the generation of electrical energy. It is imperative to have a trained workforce familiar with theory, installations, troubleshooting, and maintenance of renewable energy systems. It is this reason an undertaking is in place to develop a program to train individuals in the Fairfield, Lexington, and Richland County areas of South Carolina to provide entry level training in renewable energy solutions.
REFERENCES

• 120th Session, & 2013-2014. South Carolina General Assembly
