

## **SAMPLE SYLLABUS, Institute**

<i>Day 1</i>	Introduction to NREL and National Energy Challenges Energy Analysis Tools and News You Can Use NREL Sustainable Campus of the Future Building Technologies
<i>Day 2</i>	National Wind Technology Center Energy Systems Integrations Solar Energy
<i>Day 3</i>	Transportation and Biofuels Interactive Class Project Graduation Ceremony

### Day 1

#### **Introduction to NREL; America's Energy Challenges and Opportunities**

- Student introductions and networking
- Presentation and discussion; America's Energy Challenges and Opportunities
- Course Content, The Campus of the Future: Facility Design and Sustainability Practices
- Course Content, Buildings: Building ultra-energy buildings. Building design and construction, performance characteristics, and analytical tools.
- *Field Trips*: "Behind-the-Fence" tour of NREL's South Table Mountain facilities and super energy-efficient Research Support Facility
- Hosted evening reception

### Day 2

#### **Energy Systems Integration and Renewable Energy Applications**

- Course Content, Wind Energy: Wind technology overview, performance characteristics, and tools you can use
- Course Content, Solar Energy
- Course Content, Energy Systems Integration: models and research tools for energy infrastructure addressing solar, wind and transportation technologies
- *Field Trips*: National Wind Technology Center and Energy Systems Integration Facility

## **Energy-efficient Transportation, Biofuels and Putting It All Together in Communities of the Future**

- Course Content, Transportation & Fuels: This unit will explore the challenges and opportunities in transportation; biofuels; vehicle efficiency. This unit will also cover NREL's work to address the technological advancements, vehicle efficiency and electric vehicles.
- Course Content, Bringing it all together for your organization, community or business model.

### **Class Projects and Graduation**

- Interactive group projects
- Graduation