

# Alternative & Renewable Energy

*Interested in developing programs in alternative and renewable energy? Looking to help meet the growing demand of skilled technicians who can install, and maintain modern wind turbines?*

Iowa Lakes Community College was! Schoolcraft Publishing was able to assist the Wind Energy and Turbine Technology team with the breadth of our topic options. In addition to our standard industry validated, student oriented courseware, and time saving *Instructor Support Materials*, we also have a useful *Custom Book Program*. We offer over 1,000 chapters/topics to choose from to build a book as unique as your program. Customize your book even further by adding your school's name and logo on the cover! We've enclosed some actual tables of contents on the reverse side for your consideration and stimulation. We're good at helping you help your students by providing *"the flexibility you want with the affordability you need!"*

*But don't take our word for it. Read what some of your colleagues have to say...*

“ Schoolcraft Publishing's Custom Book Program helped us overcome the content and cost challenges facing some parts of our Wind Energy and Turbine Technology program. We discussed our curriculum needs with my Account Manager, Pete Heinrich, and then he and SCP created a more focused textbook. Our students are also pleased with the significant value of the related course material. ”

– Craig Evert

Wind Energy and Turbine Technology  
Iowa Lakes Community College

“ I had been actively searching for a textbook that would fit a new course in Energy Engineering at the secondary level. None could be found and Schoolcraft Publishing offered the option to custom build a book. I reviewed all the technical skill set information that we would need to truly teach a basic technician for an energy career pathway and Schoolcraft Publishing made it happen. The students love the book and I received the support I needed as an instructor to craft a book specific to my classroom needs. I couldn't have asked for better affordability and fit to my budget. ”

– Doug Keaton

Instructor  
Russell Area Technology Center

## Check out some of the following Custom Books that we created

Contact us today to learn HOW we can help you!

### SCP 288 **Alternative & Renewable Energy: Basic Technical skills**

- Chapter 1: *Working with Other People*
- Chapter 2: *Electrical Hazards*
- Chapter 3: *Electrical Safety Equipment*
- Chapter 4: *Electrical Safety Procedures*
- Chapter 5: *Grounding, Ground Faults, and Short Circuits*
- Chapter 6: *Forces and Motion*
- Chapter 7: *Work, Energy, and Power*
- Chapter 8: *Fluid Mechanics*
- Chapter 9: *Simple Machines*
- Chapter 10: *Hydraulic and Pneumatic Drawings*
- Chapter 11: *Troubleshooting with Electrical Schematics*
- Chapter 12: *Troubleshooting Control Circuits*
- Chapter 13: *Troubleshooting Control Devices*
- Chapter 14: *Troubleshooting DC Motors*
- Chapter 15: *Troubleshooting AC Motors*
- Chapter 16: *Saving Time in Troubleshooting*
- Chapter 17: *DC Generators*
- Chapter 18: *DC Motors*
- Chapter 19: *DC Armatures*
- Chapter 20: *Maintenance of DC Equipment*

### SCP 285 **Wind Troubleshooting and Repair**

- Chapter 1: *Introduction to Troubleshooting*
- Chapter 2: *Troubleshooting Techniques*
- Chapter 3: *Preparing for Troubleshooting*
- Chapter 4: *Using Schematics and Diagrams*
- Chapter 5: *Symbols on Schematics*
- Chapter 6: *Electric Symbols*
- Chapter 7: *Electric Diagrams*
- Chapter 8: *Troubleshooting with Electric Schematics*
- Chapter 9: *Troubleshooting with Combination Starters*
- Chapter 10: *Troubleshooting DC Motors*
- Chapter 11: *Troubleshooting AC Motors*
- Chapter 12: *Power Supplies and Power Conditioners*
- Chapter 13: *Troubleshooting Power Supplies*
- Chapter 14: *Planned Maintenance*
- Chapter 15: *Preventive Maintenance*
- Chapter 16: *Troubleshooting Guidelines*
- Chapter 17: *The Need for PM*
- Chapter 18: *Setting Up a PM Program*
- Chapter 19: *Scheduling PM*

### Some Alternative & Renewable College Programs Using the Custom option

*Iowa Lakes Community College*

*Texas State Technical College*

*Northeastern Junior College*

*Amarillo College*

*Russell Area Technology Center*



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### SCP 322: Wind Turbine Material and Electro Mechanical Equipment

- Chapter 1: *Working with Other*
- Chapter 2: *Properties of Metals*
- Chapter 3: *Fasteners*
- Chapter 4: *Gears*
- Chapter 5: *Gear Drives*
- Chapter 6: *Principles of Lubrication*
- Chapter 7: *Characteristics of Lubrication*
- Chapter 8: *Electrical Hazards*
- Chapter 9: *Electrical Safety Equipment*
- Chapter 10: *Electrical Safety Procedures*
- Chapter 11: *Grounding, Ground Faults, and Short Circuits*
- Chapter 12: *Troubleshooting with Electrical Schematics*
- Chapter 13: *Troubleshooting with Control Circuits*
- Chapter 14: *Troubleshooting with Control Devices*
- Chapter 15: *Troubleshooting DC Motors*
- Chapter 16: *Troubleshooting AC Motors*
- Chapter 17: *Saving Time in Troubleshooting*
- Chapter 18: *DC Generators*
- Chapter 19: *DC Motors*
- Chapter 20: *DC Armatures*
- Chapter 21: *Maintenance of DC Equipment*
- Chapter 22: *Metric Measurement*

### SCP 292: WINTEC 1010 — Blueprint Reading and Sketching

- Chapter 1: *Introduction to Blueprints*
- Chapter 2: *Machine Parts*
- Chapter 3: *Machine Drawings*
- Chapter 4: *Building Drawings*
- Chapter 5: *Hydraulic and Pneumatic Drawings*
- Chapter 6: *Piping and Plumbing Drawings*
- Chapter 7: *Electrical Drawings*
- Chapter 8: *Sketching*
- Chapter 9: *Introduction to Schematics and Symbols*
- Chapter 10: *Symbols on Schematics*
- Chapter 11: *Electrical Symbols*
- Chapter 12: *Electrical Diagrams*
- Chapter 13: *Hydraulic and Pneumatic Symbols*
- Chapter 14: *Hydraulic and Pneumatic Diagrams*

### SCP 297: Wind Instrumentation

- Chapter 1: *The Nature of Process Control*
- Chapter 2: *Elements of Process Control*
- Chapter 3: *Process Control Signals*
- Chapter 4: *Introduction to Process Measurement*
- Chapter 5: *Principles of Transducer Operation*
- Chapter 6: *Basic Process Measurement Systems*
- Chapter 7: *Electrical Instruments*
- Chapter 8: *Principles of Pressure in Liquids and Gases*
- Chapter 9: *Pressure Transducers*
- Chapter 10: *Controller Operation*
- Chapter 11: *Electric Actuators*

### SCP 321: Wind Energy Mechanical Systems

- Chapter 1: *Introduction to Metals*
- Chapter 2: *Properties of Metals*
- Chapter 3: *Standard Steels*
- Chapter 4: *Heat Treatment*
- Chapter 5: *Gears*
- Chapter 6: *Gear Drives*
- Chapter 7: *Adjustable Speed Drives*
- Chapter 8: *Aligning Shafts*
- Chapter 9: *Shaft Coupling Devices*
- Chapter 10: *Clutches and Brakes*

