

**Eastern WV Community & Technical College
Master Course Record**

Course Prefix and Number: WTT 270
Course Title: Airfoils and Composite Repair
Recommended Transcript Title: Airfoils and Composite Repair
Date Approved/Revised: July 14, 2014; September 21, 2015
Credit Hours: 3 Contact hours per week: Lecture: 2 Lab: 2
Prerequisite: Pre/Corequisite:
Grading Mode: Letter
Catalog Description: This course will enable the student to more efficiently inspect, repair and move/transport wind turbine blades. Students will understand common industry terms used in the manufacture and repair of wind turbine blades. Proper turbine blade handling techniques will be discussed and demonstrated. Manufacturing processes will be studied to more fully understand the internal construction of turbine blades and therefore, the steps needed to perform repairs in an efficient manner.
Course Outcomes: Students will understand: 1. Types and terminology of airfoils and composites 2. Aerodynamics of turbine blades 3. Blade manufacturing processes 4. Turbine blade inspections and reporting 5. Various methods of composite constructions and repairs 6. Turbine blade balancing 7. Transporting and handling of chemicals and repair materials 8. How to safely use composite repair chemicals and personal protection
Implementation Cycle: Summer
Role in College Curriculum: <input checked="" type="checkbox"/> General Education Core <input checked="" type="checkbox"/> Technical Core: Wind Energy Technology, AAS <input checked="" type="checkbox"/> Restricted Elective <input checked="" type="checkbox"/> General Elective <input checked="" type="checkbox"/> Workforce <input checked="" type="checkbox"/> Other
Course Fee: Yes
Instructor's Qualifications: Bachelor's Degree in engineering, related technical field, or industry recognized qualifications.
Expanded Course Description: This course is taken in lieu of a summer internship or as an added elective course.

Prepared by: Skip Landes, Faculty. 03/16/15: 5/25/15

Course Number & Title: WTT 270 Airfoils and Composite Repair

Date Prepared/Revised: 03/16/15: 05/25/15

Date Course Approved by LCF: July 14, 2014; April 20, 2015; September 21, 2015

Approved by:

Robert Eagle (SB-G) Dean, Academic and Student Services 11-15-10; 07-14-14;
09/21/15